

Roundtable on Determining National Appropriateness of a Mitigation Action

Seminar Hall, TERI,
India Habitat Complex, Lodhi Road, New Delhi,
15 November 2012

PROCEEDINGS

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Proceedings of the Roundtable on Determining National Appropriateness of a Mitigation Action, held at Seminar Hall, TERI, India Habitat Complex, Lodhi Road, New Delhi on 15 November 2012

The concept of nationally appropriate mitigation actions, commonly referred to as NAMAs, is fast becoming centre of policy discourse at international as well as national level with respect to mitigation actions in developing countries. The concept was first introduced in 2007 under the Bali Action Plan (BAP) recognizing; in the light of the findings of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change; that mitigation actions in developing countries too need to be given serious attention. The para 1b(ii) of the BAP noted that NAMAs in developing countries will be taken in the context of sustainable development and supported through finance, technology and capacity building. Accordingly the question of measurement, reporting and verification of NAMAs too became an important concern. Post Copenhagen there are many initiatives driven by developed countries which have resulted in many NAMA concepts, proposals and few implementation projects in many developing countries, particularly in Latin America and Africa.

Initially the adjective 'nationally appropriate' was added to ensure that countries will have sovereign rights to choose which of the possible mitigation actions they would undertake. However, over the years a range of opinions and arguments about what should constitute NAMAs have emerged. Consequently there is a considerable amount of ambiguity with respect to what governance structure for NAMAs emerge at international and national level. This is further deepened by the fact that there remains a critical gap in terms of lack of objective criteria, even a preliminary one, to define and design NAMAs which is true to its political essence. The project 'Developing Country Participation in Addressing Climate Change: Analysing Issues and Options for Implementing NAMAs and REDD Plus' supported by the Royal Norwegian Embassy, New Delhi aims to fill in this gap. This Roundtable discussion was organized in order to present the first version of approach and criteria to design and define nationally appropriate mitigation actions. It brought together participants from the government, funding organizations, civil societies and researchers.

Dr. Arabinda Mishra, Director, Earth Science and Climate Change Division, TERI, welcomed the participants and gave overview of the project. Explaining the project, he pointed out that the conceptual challenges and methodological issues that are associated with NAMAs make such study extremely timely and important. The latest estimate is that the shortfall is about 6-11 Giga tons of carbon dioxide equivalent. This ambition gap is huge and probably growing given the lack of progress at the international level from the developed countries side. This study looks specifically into developing countries participation, with a particular focus on BASIC countries. The conceptual aspects which we hope to address in this study, which is one of the

key motivations behind holding this Round Table, is to identify a set of criteria that can guide us in understanding what NAMAs are particularly in the Indian context. There are several elements that feed into this conceptual complexity. And one is of course the title itself – naming this mechanism as **NATIONALLY APPROPRIATE MITIGATION ACTION (NAMA)** immediately throws some questions about what is NAMA. Immediately one feels the need to address what criteria one should bring in to make such actions consistent with national development priorities and the kind of priorities that are identified in the policy framework at the national and sub-national level. Beyond this definitional issue, there are also methodological issues that emerge in understanding how one distinguishes domestic NAMAs from international NAMAs and how NAMAs relate to the kind of institutional mechanisms that are emerging at the global level such as the concept of NAMA registry or new market mechanism. While Durban outcome gives some impetus to the whole idea of NAMA and brought in some clarity, a lot of detail is still being worked out, which gives certain kind of relevance to this study. We believe that there is need for well defined well validated approach to understanding NAMA in the national context. In our view, multi-criteria approach can help policy makers in identifying and defining NAMAs.

Manish Kumar Shrivastava, Associate Fellow, TERI, presented the draft criteria and approach to apply it. He said that the literature as well as the stakeholder consultation organized under the project in August 2011 indicate that the complexity of the problem at hand, in terms of associated ambiguities about NAMA governance, require a discursive decision making approach whereby the nature and scope is defined using multiple criteria. Primary reason for discursive decision making is the fact that not all criteria can be measured on same scale and therefore cannot be aggregated into one score. In addition, different actions have different economic and temporal scale. Hence they cannot be compared with each other on the basis of an aggregate score.

Building on literature review, developments in international negotiations, questionnaire survey, stakeholder consultation and discourse analysis, which is published in the various issues of project research letter 'Mitigation Talks', the study tried to abstract some guiding principles as well as a range of criteria. The guiding principles are broadly the desirable outcomes of a NAMA, which are classified as four 'criteria clusters'. These criteria clusters are further broken down into positive and negative sub-criteria. According to the proposed approach and criteria, any mitigation action is scored against all sub-criteria in terms of 'immediate impacts' and 'ripple impacts' (the second order impacts). Sub-criteria scores then are aggregated in a positive and a negative score for respective criteria-cluster. Hence, a proposed mitigation action is given four positive and four negative scores, which can be used for deliberative decision making. The idea of keeping the positive and negative scores on each criteria cluster separate is maintain that not all negative impacts of a project can be substituted by its positive impacts, therefore a political judgment is necessary at least about accepting negative impacts.

Further, depending upon the circumstances and national developmental goals, a cut-off score for each criteria-cluster may be chosen by the governments to make decisions. The four criteria clusters are (a) transformation of economy towards low carbon development pathways, (b) suitability in given international context both in terms of open economy dynamics as well as climate governance, (c) distributional and structural impacts, and (d) economic and institutional feasibility. Application of these criteria should be done in an iterative manner wherein the objective is to reduce or minimize negative scores. The benefit of this approach is that in order to bring down negative scores to an acceptable level, the scale and cost of the action changes: it may increase or decrease. In any case we find the appropriate scale and cost of an action.

The background presentation generated a healthy debate and discussion on the subject. A number of clarifications were sought, and suggestions were made even during the presentations. **Ms. Jyoti Arora, Joint Secretary, Ministry of Power**, pointed out that for governments cost of a project is most important. Therefore, in the approach and criteria cost considerations should be given prominent space, instead of treating them as sub-criteria of economic and institutional feasibility. **Mr. Sanjay Garg, Director, Ministry of Power**, suggested to give more detailed articulation of issues relating to technology transfer and development issues. It is important to keep in mind that technological progress is a national priority as well as one of the most contested issue in climate change negotiations.

Adding to Mr. Garg's point, **Dr. Prodipto Ghosh, Distinguished Fellow, TERI**, pointed out that any NAMA has to be measurable, reportable and verifiable (MRV). But MRV is a very politically sensitive issue as it has sovereignty cost associated with it. Therefore, MRV implications of any project must be commensurate with volume of financial support provided by developed countries. It may be the case that a developed country or funding agency provides a token of financial support but the whole project is subjected to MRV. Moreover, the type of finance (grant, loan, ODA) also has implications for political acceptance. Hence, the criteria should bring this dimension out explicitly. In addition, in proposing any decision making criteria the project team has to decide who will be the likely user of such criteria. As of now, the criteria seems to suggest an alternative approach to policy making and therefore is not likely to be taken up by the government. Yes, foreign funding agencies may find it useful but then it goes against the basic premise of this study i.e. national appropriateness.

Ms. Anuradha, Clarus Law, congratulated the team for taking up such study. However, she pointed out that while the intention and effort is commendable, the study must keep the international dimension of NAMAs at the core. One fear of having such a criteria is to give opportunity and space to developed countries to use the criteria against developing countries and dictating the terms and type of actions developing countries should take if they want it to be a supported NAMAs. Since the issues of International Consultation and Analysis (ICA) and

MRV are not yet resolved in global climate negotiations, the criteria is vulnerable. Further, she pointed out that sub-criteria need to be defined more clearly and that definition should, to the extent possible, avoid making any value judgment such as 'imports are necessarily bad'.

After these initial comments a **free discussion** followed. Following key points emerged from that conversation:

- (1) Scoring and weightage assignment to different criteria cluster or sub-criteria needs to be done carefully. Principles that define choice of scale need to be made explicit and justified in the context of study.
- (2) Application of criteria should be simple and transparent. In that measurability of all criteria is important. The valuation aspect still needs more elaboration and deliberation.
- (3) Since the context is still emerging, criteria should not be too rigid.
- (4) Since NAMA could be in any sector, criteria should be more general and flexible.
- (5) The criteria should also reflect assessment of technical viability of the project.
- (6) Government decisions are made a priori in terms of what area of activities will get how much money in total. Decision making context for selection of project is defined by such a priori decisions. For the criteria to be useful for government it has to be applicable in terms of selection few out of many.

In closing the discussion Dr. Arabinda Mishra said that it was a lively discussion and was up to the overall expectation. The points raised by participants have added great value to the shape of the outcome of the study.

Annexure 1: Agenda



The Energy and Resources Institute

Supported by



Agenda for Roundtable on

“Determining National Appropriateness of a Mitigation Action”

15th Nov. 2012, From 10:00 am to 1:30 pm
TERI, India Habitat Centre, New Delhi

10:00am-10:30am	Tea/Coffee
10:30am-10:40am	Welcome and overview of the Roundtable Dr.Arabinda Mishra, TERI
10:40am-11:10am	Designing Nationally Appropriate Mitigation Actions: An Approach Manish Shrivastava, TERI
11:10am-12:10pm	<p>Initial response by the discussants</p> <ul style="list-style-type: none"> • Arabinda Mishra, TERI (Moderator) • Jyoti Arora, Ministry of Power • Abhishek Acharya, Department of Economic Affairs • Sanjay Garg, Ministry of Power • D. Raghunandan, Delhi Science Forum • Prodipto Ghosh, TERI • Leena Srivastava, TERI • Anuradha RV, Clarus Law Associates • Usha Rao, kfW • Inderjeet Singh, PWC. • Prabhat Upadhyaya, Centre for Policy Research • Nimisha Pandey, TERI • Swati Agarwal, TERI • Tamara Billimoria, TERI

12:15pm-1:15pm	<ul style="list-style-type: none">• Open discussion among the participants. Participants will be allowed to respond to each-other.
1:15pm-1:30pm	Summing up of the discussion: Way forward NehaPahuja / Manish Shrivastava
1:30pm	Vote of thanks and Lunch

Annexure 2: Background Presentation

Designing Nationally Appropriate Mitigation Actions: An Approach

*Initiating the Discussion on
Determining National Appropriateness of Mitigation Actions*

15 November 2012

TERI, New Delhi

Outline of the presentation

- Overview of the project
- Need of the criteria?
- How to develop criteria?
- What should such criteria consist of?
- How to apply the criteria
- The criteria
- A tentative illustration
- Points for discussion

Overview of the project (NAMA)

- **Work Package 1:** Developing the criteria to assess 'appropriateness' of actions in given 'national' circumstances.
 - **Task 1.1:** Conceptualizing the Criteria
 - **Task 1.2:** Vetting the Criteria in Different Country Contexts
- **Work Package 2:** Identify NAMAs in selected countries
 - **Task 2.1:** Identification of Potential Mitigation Actions
 - **Task 2.2:** Assessing Appropriateness of Potential Mitigation Actions
- **Work Package 3:** Assess and enhance the preparedness of regulatory, policy and institutional arrangements in selected countries
 - **Task 3.1:** Assessing Country Preparedness
 - **Task 3.2:** Examining International Architecture
 - **Task 3.3:** Enhancing Preparedness

Need of the criteria

- Environmental problems are complex: high level of uncertainty; political in nature (Bardwell,1991)
 - Same extends to climate change problem, especially mitigation
 - Selection of appropriate mitigation options is further complex (Ramanathan, 1998)
- Different ways of constructing the problem and different paths to solving it (Bardwell,1991)
 - Availability of different mitigation options/choices. But, what is the best ? And the most appropriate ?
- Resolving the climate change problem entails more than a technical solution; Requires a combination of social, economic, political, and institutional buy in(Solomon & Hughey, 2007)
 - In the context of mitigation choices, how do we make it more inclusive & participatory ?

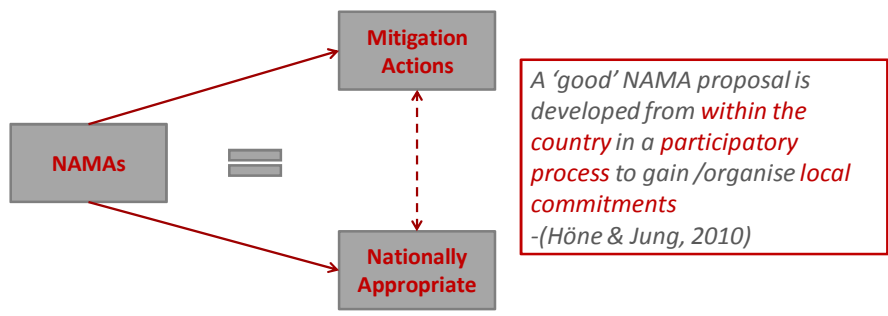
Need of the criteria

- Mitigation actions can **range from purely technological to purely behavioural** or as combinations
- Policies, measures and instruments (read: NAMAs) **are tools to trigger the implementation** of mitigation actions
- Instrument **that works well in one country may not work well in another country** with different social norms and institutions (IPCC, 2007)
 - Policy-makers need to evaluate instruments before they make choice
 - Role of other stakeholders & holistic perspective important given the nature of the problem
- There are **gaps** in evaluation of climate policy instruments to **select the most appropriate instruments** (SYKE, 2007)



How to develop the criteria?

- What does a NAMA entail ?
- NAMA = Nationally Appropriate + Mitigation action



- Key Questions :**
- What is National Appropriateness?
 - How to define/assess NA in NAMAs? Who defines/ assesses NA ?
 - How to make the process of identification of NAMAs more participatory ?

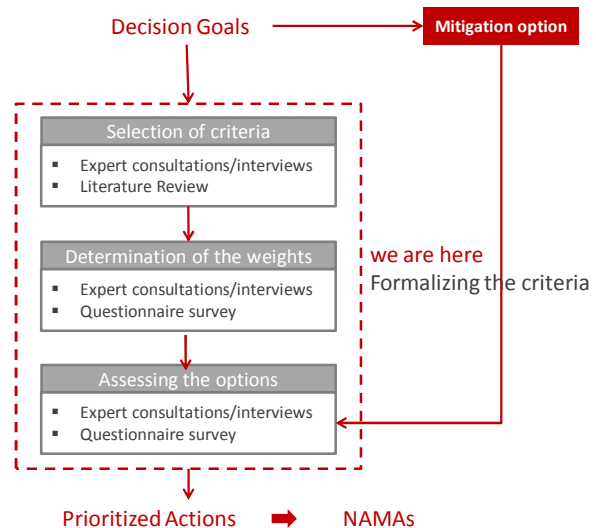


Purpose should be to-

- Identify constituent elements (environment, economic, technological, social.. more?) **defining national appropriateness**
- Provide a **common tool** that could be used by all countries (similarity in approach), applicable to multiple sectors (flexible) and is futuristic (ex ante evaluation)
- Facilitate policy-makers in **selecting the most 'appropriate'** mitigation action from a broad spectrum of choices
 - Could be applied in making **ex-ante choices** of mitigation actions and in **ex-post evaluation** of the performance of mitigation actions
 - But, not an alternative to the normal policy process rather a tool to inform policy process
- Enable **prioritization** of identified options or NAMAs ? Enable **classification** of NAMAs ?



Steps in our approach to study



We build on:

- Literature Review
- Stakeholder consultation and questionnaire survey
- Analysis of NAMA proposals in pipeline
- Impressions from discussions in workshops/conferences and submissions to UNFCCC



and we find that:

- **A multi-criteria approach in unavoidable**
 - Captures **complexity and multiplicity of perspectives**, central to environmental decision making (Phekar & Ramachandran, 2003; Greening & Bernow, 2004; Solomon & Hughey, 2007; Wang *et al*, 2009)
 - Provides **comprehensive, participatory and qualitative** assessment (Browne & Ryan, 2010)
- **All criteria must be measurable**
 - Combination of scales
- **Discursive application**
 - From AHP to ANP: problem of **rank reversal** (Ji and Jiang 2003)
 - **Incommensurability** of values (Martinez-alier *et al.* 1998)

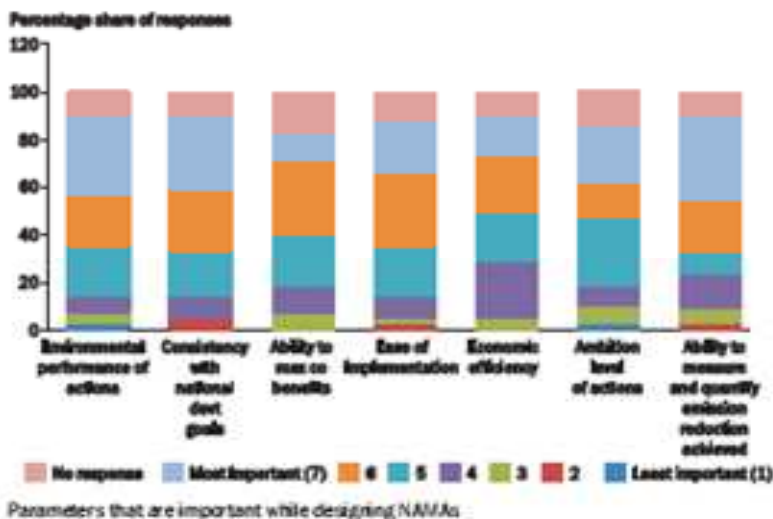


What should such criteria consist of?

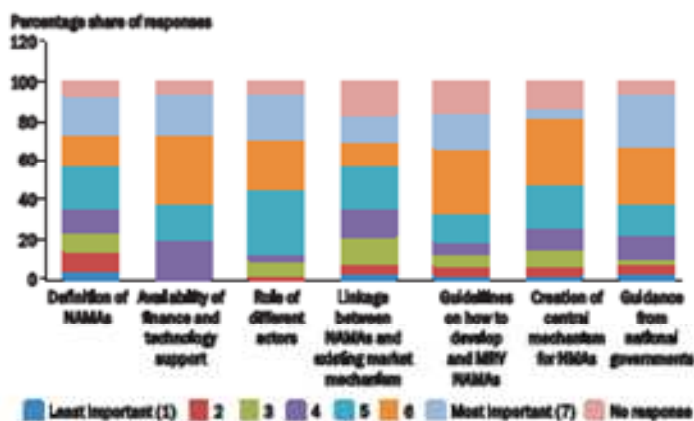
- **Four principal criteria** for evaluating environmental policy instruments (IPCC 2007): ➔
 - **Environmental effectiveness** – the extent to which a policy meets its intended environmental objective or realizes positive environmental outcomes.
 - **Cost-effectiveness** – the extent to which the policy can achieve its objectives at a minimum cost to society.
 - **Distributional considerations** – the incidence or distributional consequences of a policy, which includes dimensions such as fairness and equity, although there are others.
 - **Institutional feasibility** – the extent to which a policy instrument is likely to be viewed as legitimate, gain acceptance, adopted and implemented.

But, not necessarily 'appropriateness'...
➔ consultation, questionnaire survey, discourse analysis, review....

Results of questionnaire survey



Results of the Questionnaire Survey



Level of importance of the role of the following issues plays in facilitating the operationalization of a NAMA mechanism



The four criteria-clusters

- **Transformation of Economy**
 - Primary or immediate impacts
 - Secondary, tertiary impacts [ripple effect]
 - No compromise with development and environmental well being
- **Distributive and structural impacts**
 - No freezing of inequality
 - No high-emission lock-ins
- **Economic and institutional feasibility**
 - Economic viability
 - Environmental safeguards
- **International climate policy context**
 - Watchful of nature, type and conditions of support



Scoring and decision-making scheme

Criteria Cluster X	Primary impacts	Ripple effect	Aggregate Score
Positive	Scale _{PP}	Scale _{PR}	$b(P, R)$ s.t. $b > x$ is A
Negative	Scale _{NP}	Scale _{NR}	$c(P, R)$ s.t. $c < y$ is A



x and y to be determined politically, would reflect national context

Criteria Cluster	Positive Score	Negative Score
Transformation of economy		
Distributive and structural impact		
Economic and institutional feasibility		
International Climate policy context		



Deliberations

How to apply the criteria

- **Iterative process**
 - Eliminate or reduce negative impacts
 - Adequate financial, institutional, and technological scale

- **But there is no limit on number of iterations, therefore within a time-frame of 15-20 years**
 - C. Freeman and C. Perez: technolo-economic paradigm (1985-2004)

Unbundling criteria-clusters

■ Positive impacts

Transformation of Economy		Distributive and structural impacts	Economic and Institutional feasibility	International climate Policy Context
Temporal Scale of impacts		Improved quality of life (access to clean energy and drinking water, mobility, shelter, food security, sanitation)	Sufficiency of existing regulations (e.g. environmental safety)	Need for international finance
Technological capability		Social justice (caste, gender)	Meeting with the stipulated regulations	Availability of international finance
Emission reduction		Equality among states	Reduced imports	Type of international finance
Increased private sector participation		Employment generation	Increased exports	Need for international technology transfer
Infrastructure development		Rural development	Cost effectiveness	MRViability of actions
Conservation of natural resources (fossil fuels, water)		Environmental well being	Capacity of local institutions	

Unbundling criteria-clusters

■ Negative impacts

Transformation of Economy	Distributive and structural impacts	Economic and Institutional feasibility	International climate Policy Context
High emission lock-in	Increased income inequality	Violation of constitutional provisions	Support in the form of export subsidy
Duration of lock-in	Employment loss over the project period	Need new institutions	Conditional (other than MRV) support
	Worsened Social Justice (Caste, Gender)	Appropriateness of new institutions	Need for training
	Increased Rural-Urban Divide	Increased imports	
		Reduced exports	
		Need for FDI	

Scoring: A demo

■ **Positive impacts: Transformation of economy**

Sub-criteria	Primary impacts (P)	Ripple effect (R)	Sub-criteria score
Temporal Scale of impacts	Less than 5 yrs (7), 5-10(5), 10-15 (3), more than 15 (1)	More than 15 yrs(7), 10-15 (5), 5-10 (3), less than 5 (1)	PxR >15 is appropriate >25 is must
Technological capability	From equipment (1), equipment+training (3) to complete technology transfer (5)	From domestic technology diffusion (1), transfer of existing technology (3) to transfer and development of new technology (5)	PxR >=9 is appropriate 25 is must
Emission reduction	Yes (2), No (1)	Extremely high (7)-5-3-positive(1)	PxR > 5 is appropriate 14 is must
Increased private sector participation	Yes (2), No (1)	Extremely high (7)-5-3-positive(1)	PxR > 5 is appropriate >10 is must

Cluster aggregate = avg (sub-criteria score / max. PxR)



Scoring example: The Solar Mission

■ **Positive impacts: Transformation of economy**

Sub-criteria	Primary impacts (P)	Ripple effect (R)	Sub-criteria score
Temporal Scale of impacts	Less than 5 yrs (7)	10-15 years (5)	PxR = 35 >15 is appropriate >25 is must
Technological capability	Equipment training (3) +	Transfer of existing technology (3)	PxR = 9 >=9 is appropriate 25 is must
Emission reduction	Yes (2)	High (5): One needs to calculate emissions in the supply chain	PxR = 10 > 5 is appropriate 14 is must
Increased private sector participation	Yes (2),	High (5)	PxR = 10 > 5 is appropriate >10 is must

Cluster aggregate = avg (sub-criteria score / max. PxR)
 =((35/49)+(9/25)+(10/14)+(10/14))/4 = 63% > 35% [benchmark]



Way forward: expectations from the Roundtable

- views and inputs towards suitability of the overall approach
- reflections on the adequacy of the range and type of criteria (including need of 'veto criterion'), and measurement scales
- direction towards aggregation of individual criterion scores into representative score of respective criteria-cluster.

DISCUSSIONS