The Energy and Resources Institute

NORWEGIAN EMBASSY

Nationally Appropriate Mitigation Actions: An Approach to Design, Label, and Monitor

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Why an approach is needed

- Mitigation in developing countries is a political choice. It has to not only align with the goals of development planning but also live up to the conditions of political acceptance and socio-cultural norms.
- Recent developments have virtually transformed the phrase, 'nationally appropriate mitigation actions' from a politically condensed articulation of conditions under which developing countries may be willing to take mitigation actions to a mechanism by which mitigation actions in developing countries may be promoted.
- NAMAs could be categorized in two different ways: (*i*) according to the type of action, i.e., policy, programme or project; and (*ii*) according to the source of support, i.e., domestic, international, mixed, etc. Each has different political sensitivities attached to it, particularly with regard to MRV implications.
- It is imperative that a national agency with approving authority is an essential part of any institutional arrangement for implementing NAMAs. This authority will have to make a choice, the appropriateness of which is to be established with reference to national circumstances and respective capabilities.
- Given the uncertainties in the global climate regime, complexity of negotiating positions, and types of NAMAs and their implications, a structured approach to facilitate decision making is required.

1. Six normative underpinnings of the proposed approach

Based on literature review, stakeholder consultations, on-line survey, analysis of proposed NAMAs and country submissions, we conclude that an effective structured approach to facilitate implementation of NAMAs must comply with the following six normative guidelines:

- Flexibility to country context is imperative
- Multi-criteria approach is unavoidable
- Criteria must be measurable
- Discursive and iterative application of criteria is preferred
- Political sensitivity of negotiations must be captured
- Utility and ease of application

2. The proposed approach

Each NAMA is assumed to have a set of desirable outcomes. These possible outcomes are clubbed into eight normative objectives which we call the *outcome clusters*. Each outcome is further translated into numerous *criteria*. Recognizing that each criterion within an outcome cluster may have different significance for a country, the approach allows flexibility to users to assign weightage to each criterion within an outcome cluster, which essentially reflects national circumstances and priorities. Each criterion may have multiple *options* for which different countries' attitude may be different (Table 1). The approach allows the users to embed their attitudes towards various options, reflecting the sensitivity to negotiating positions as well as political and socio-cultural acceptability conditions.

Users can assign *weightage* for each criterion within an outcome cluster along with *attitudes* towards various options — acceptable (+1), indifference (0), and not-acceptable (-1). A proposed NAMA is mapped against these options in terms of qualitative and/or quantitative scores, expressed numerically as per the scoring guide. These scores are aggregated for outcome clusters. Since it is advised not to reduce impacts of an action to a single score, and at the same time also recognize that some degree of aggregation is necessary for making the criteria accessible and useful, it is proposed that each outcome cluster is given two scores — one signifying the qualitative strength of positive impacts and other recognizing negative impacts. This is achieved by aggregating the option scores as per the sign of attitude, i.e., positive or negative. Accordingly, each outcome cluster gets *positive* and *negative scores*, in a *deliberation matrix*. The deliberation matrix of various NAMA proposals can be used to ascertain their eligibilities, acceptability, and categories. Moreover, the negative scores also provide an indication of modification of NAMA design. It is important to note here that the user may add or delete more criteria and corresponding options within each outcome clusters.

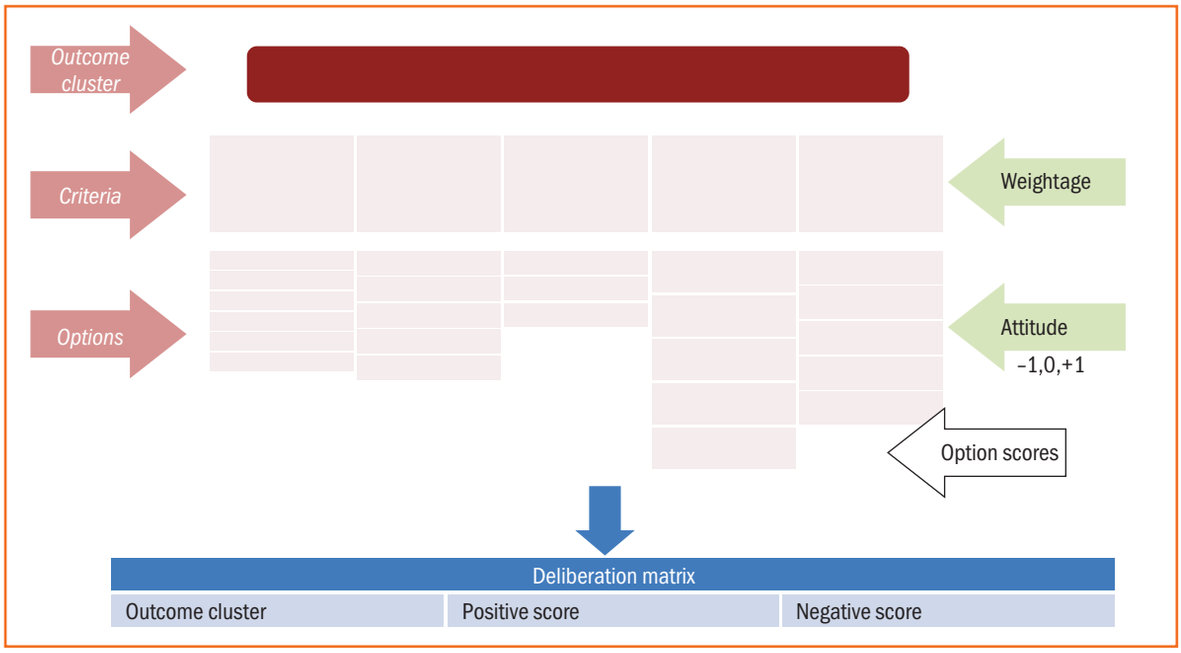

FIGURE 1: General scheme of the approach

3. Outcome clusters and criteria

3.1 Political acceptability of international support

Mitigation in developing countries in context of climate change has always been a politically contentious issue. Any discussion or opinion about NAMA therefore cannot be insulated from reference to its international context. The two most important aspects are the international support (technology and finance) and MRV requirements. While it is a well-known position of developing countries that mitigation actions are dependent on international financial, technological, and capacity building support, the need to scrutinize the package of support itself has also been pointed out, citing sovereignty and accountability concerns. For example, the source of support, or the channel through which support flows to developing countries and the conditions with which support is provided, need to be carefully examined. A better way of doing this is to reflect upon it at the designing stage of the action, mentioning the acceptable package of support. With reference to MRV requirements, transparency and upfront statement of national circumstances and priorities that a proposed action caters to, is imperative in any design criteria for NAMAs. Implicit in it is the requirement of measurability.

3.2 Transformation of economy

Although expressed through various concepts such as low-carbon economy, sustainable development, Green growth, and so on, the underlying assumption has been that a NAMA should help the economy transform itself over a period of time into a more environment friendly economic system. This transformation may be brought about through technological changes, increases in private sector participation, changes in lifestyles, etc. It is also noted that such transformation of economy should not be at the cost of compromising national developmental priorities and overall environmental well-being. In other words, the transformation should be measured in terms of contribution to national developmental priorities, such as energy security, poverty alleviation, and enhanced manufacturing capabilities. These concerns may be further broken down into considerations of not only the immediate effects of the action but also the secondary effects of each activity that constitutes a part of the action. Hence, consideration of the 'time dimension' and 'second order effects' is integral to assessing contribution of an action towards transformation imperatives.

3.3 Social and local acceptability

The social dimension of the sustainable development agenda along with acceptability among the local and political community emerges from the discourse as one of the core priorities. In particular, reduction in economic and social inequalities and sensitivity to cultural practices of local community are of critical consideration.

3.4 Environmental consequences

The trade-off between mitigation benefits and other environmental benefits find an increasing resonance in climate policy discourse. Mostly, other environmental benefits are articulated as co-benefits of climate action, highlighting added advantages, and hence justifying certain mitigation actions. However, it is also articulated in a reverse order pointing out that mitigation actions should not be undertaken at the cost of other environmental considerations; for example, air quality, biodiversity, water quality, soil, etc.

3.5 Cost effectiveness

Cost effectiveness of an action emerges as one of the primary concerns. These considerations include cost implications not only for the project implementer but also to regulatory agencies, government, and the beneficiaries of the action.

3.6 Institutional feasibility

All actions take place within an institutional context. Therefore, in order for an action to be implemented, it is a pre-requisite that it is a feasible action not only according to economic rationality but also in terms of institutional requirements. Mostly, these concerns are expressed in terms of fulfilment of regulatory requirements, favourable legal and policy environment, environmental standards, safety measures, and so on.

3.7 Domestic resource use

Efficient and optimum utilization of and greater reliance on domestic resources are well-established guiding principles of development planning. The discourses on low carbon transition, energy security, and sustainable development underscore this principle.

3.8 Reduction in undesirable impacts

Any action might have positive as well as negative impacts across multiple dimensions. As a general rule, the positive impacts must be maximized and negative impacts should be minimized. While these concerns are expressed in positive as well as negative

requirements, a generalization of views expressed could be made to imply that as long as certain negative impacts are avoided an action could be considered appropriate. However, it might not be possible to eliminate all the negative impacts of a project. The choice therefore would be between two different combinations of negative impacts. Moreover, in different country contexts the list of negative impacts may be different. The negative impacts, over which very strong opinions have emerged, include the following conditions: (*i*) social and economic inequality should not increase, (*ii*) no action described as NAMA should allow the economy to get locked into high emission economic activities that cannot be closed down within economic rationality before a certain period of time, (*iii*) a NAMA should not imply diversion of resources from other development activities, (*iv*) conditionality of support should not infringe upon sovereignty, (*v*) balance of payment condition of a country should not be worsened, (*vi*) the action should not lead to loss of livelihood of poor, and (*vii*) import dependence of an action should be as minimum as possible.

4. How to apply the approach?

It is important to keep in mind that the proposed approach is not aimed at making the final decision, rather its purpose is to facilitate decision making in a more transparent manner. The proposed approach could be used to design a NAMA or assess national appropriateness of mitigation actions. In case of already developed proposals, the application of approach can not only help in assessing the degree to which a proposal is in the national interest, it can also be an instrument to find ways to improve the proposal. However, the most important use of the approach is at the stage of designing a NAMA. It is recommended that the approach is applied in an iterative fashion while designing a NAMA. The purpose of iterations is:

- To eliminate the negative scores or reduce them to an acceptable level
- To find an adequate financial, institutional, and technological scale as well as scope under which an action is most appropriate

It implies that, for the iterative process, if a proposed action does not attain acceptable scores against each cluster, corrective measures must be included as part of the proposed action and scores should be reworked. This would necessarily affect the scale and scope of the action. Moreover, if a fully internationally supported action does not meet the conditions of political acceptability, that action must not be undertaken. A schematic representation of how to apply the approach is given in Figure 2.

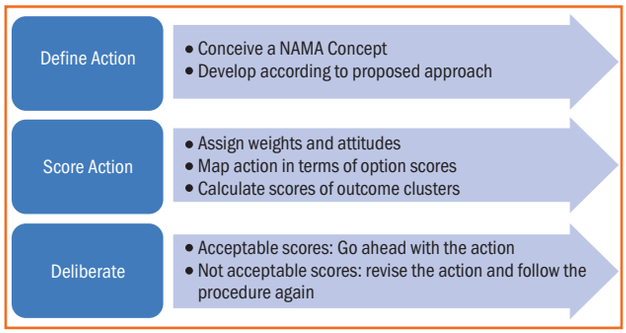

FIGURE 2: How to apply the NAMA design and approval approach

5. Who can use the tool?

The primary beneficiaries of the proposed approach are developing country governments, private sectors, and funders involved in designing/approving NAMAs.

- It can facilitate policy-makers in selecting more 'appropriate' mitigation actions from a broad spectrum of options.
- It can also help governments in classifying NAMAs. The emerging discourse on NAMAs indicates that NAMAs could be categorized in two different ways. One is according to the type of action, i.e., policy, programme or project and the other is according to the source of support, i.e., domestic, international, mixed, etc. Each has different political sensitivities attached to it, particularly with regard to MRV implications. The proposed criteria offer a structured approach to establish boundaries between domestic and supported NAMAs.
- The proposed criteria could also be applied in making ex-ante choices of mitigation actions and in ex-post evaluation of the performance of mitigation actions.
- It is however important to note that it is not an alternative to the normal policy process rather a tool to inform the policy process.
- It is important to keep in mind that the proposed criteria is not aimed at making final decision, rather its purpose is to facilitate decision making in a more transparent and MRV-able manner. It can also be an instrument to find ways to improve the proposal when used in an iterative fashion to eliminate the negative scores or reduce them to an acceptable level and to find an adequate financial, institutional, and technological scale as well as scope under which an action is most appropriate.

TABLE 1: The Outcome Clusters, Criteria and Options: Guide for Using the Tool

Outcome Cluster	Criteria	Options (The list of options is likely to keep evolving with policy, market, and technology innovations. We propose these options to be scored as yes (1) and no (0) except for the outcome cluster "reduction in undesirable impacts". Particular users may define scoring differently, provided it is maintains comparative consistency and sensitivity of scores)
Political Acceptability of International Support	Type of finance	Grant, Equity, Concessional loan, Commercial loan, ODA, Philanthropic, Private sector…
	Nature of technology transfer	Concessional, Commercial, IPR license, Joint R&D, Knowledge…
	Capacity building	Institution level, Systemic level, Individual level
	Source of finance (under/outside FCCC)	Green Climate Fund/UNFCCC, Multilateral Financial Institutions/ Outside UNFCCC, Bilateral funding/ODA, Private investors/FDI, Individual/philanthropic…
	MRV implications: what, who, how?	International MRV of all aspects of project, International MRV of only supported component of Project, Only Domestic MRV, Part Domestic, Part International MRV, MRV of support
Transformation of Economy	Technological	Technology transfer agreement in case of imported technology, Diffusion of domestically best available technology, Enhancement in R&D infrastructure and/or domestic manufacturing capability, Strengthening of national/sectoral innovation systems, Market creation for new technologies
	Private sector participation	Increases corporate social responsibility, Leverages private finance, Encourages private sector R&D, Voluntary initiative of private sector, Public Private Partnership
	Energy security	Increased exploitation of Renewable Energy, Improvement in Energy efficiency, Reduced reliance on imported fuel, Reduced demand for energy through behavioural change, Reduced energy prices /improved access to energy
	Impact on manufacturing capability	Addition to domestic manufacturing strength, domestic content of total input/raw material, Improvement in competitiveness in international market, increased demand for domestic products (manufacture)
	Lifestyle changes	Incentives for change in consumption patterns, Incentives for adoption of best practices, Increased willingness to pay for environment friendly products, Enhanced awareness
Social and Cultural Acceptability	Reducing income disparity	Benefits for population below $1 (PPP) per day, Proportion of employed people living below $1 (PPP) per day
	Job creation	Nature (skilled, unskilled, etc.), Type (permanent, temporary, seasonal, etc.), reduces unemployment rate, number of jobs per unit of investment….
	Impact on marginalized sections of society	Lower gender inequality, Increased resilience, improved social justice…
	Safeguards against risks	Health hazards adequately addressed, Safety concerns adequately addressed, Risk performance against (industry) benchmarks…
	Cultural acceptance	Involves a lifestyle change, Involves acceptance of a new paradigm/system/process, promotes change in attitudes…

TABLE 1: Contd...

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Environmental Impacts	GHG reduction potential	Increase in green cover (impact on sinks), Decrease in primary energy use (impact on sources), Scale of impact (local, state, national)
	Impact on air quality	No impact, Increase in emissions of other GHGs, i.e. GHGs not covered under KP (SPM/RSPM, etc.), Emissions of toxic air pollutants (acid rain, dioxins, etc.)
	Impact on biodiversity	No impact, Ecosystem/biome spread (e.g., fragmentation, connectivity), Abundance and distribution of species (diversity index), Change in status (e.g., from threatened to protected, etc.)
	Impact on water resources	No impact, Water quality, Availability of water, Local access to water, Groundwater table…
	Waste management	Quantity of waste generated, type of waste generated, availability of suitable waste disposal facilities, No impact…
	Impact on soil	Top soil (pollution/productivity), Ground cover (erosion), Salinization (from anthropogenic sources such as irrigation, fertilizer use, etc.)
Cost effectiveness	Cost of action	Investment per unit emission reduction, total cost per unit emission reduction, total cost per unit co-benefits accrued… (whether the costs are lower than a pre-determined benchmark)
	Cost of compliance	Costs incurred for meeting all the regulatory requirements within the project boundary per unit emission reduction achieved … (whether the costs are lower than a pre-determined benchmark)
	Cost to government	Costs incurred by the government in ensuring/enforcing compliance in terms of per unit of emission reduction or output… (whether the costs are lower than a pre-determined benchmark)
	Cost to beneficiaries	Reduction in prices of goods and services, Development of community assets or other tangible assets, Ease of access of credit, Introducing tax burden on beneficiaries
	Cost recovery period /economical viability of the project	A positive economic NPV, A positive discounted Net Cash Flow, Cost of capital <IRR, duration of payback period
	Resource (Input) efficiency	Extraction of natural resources per unit of output, Non-Compliance with one or more than one laws and regulations applicable to the action
Institutional Feasibility	Compliance with existing laws and regulations	Compliance with all laws and regulations applicable to the action
	Changes in institutional arrangement	Existing institutional structures are adequate for undertaking the action, Action requires modifications within the existing institutional structure, Action requires establishment of new institutional arrangement

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Domestic Resource Component	Human resource	Action enhances the awareness levels of the local population, Enhances the knowledge and expertise (skills) of the local population/Leads to building green societies through green (job) training, Enhances (provides) job opportunities for the local population, Brings about a behavioural change in the local population (as a response mechanism to climate change), Promotes good health and well-being of the local population, Enhances economic prosperity and stability amongst the local population, Enhances economic prosperity and stability amongst marginalized sections of the local population…
	Natural Resource	Action enhances the natural resource base of the region, enhances the natural resource base of the region, Promotes the use of locally available natural resources as raw materials/inputs for the mitigation actions, Outsources/imports raw materials, etc. from other regions to protect/maintain the natural resource base of the region, Outsources/imports raw materials, etc., from other regions to address the paucity of natural resources in the region, Outsources/imports raw materials, etc. from other regions to achieve the desired efficiency levels of the employed technologies/ processes (in the absence of required materials locally)…
	Financial capital	Action strengthens the local financial market and institutions, Promotes the use of local financial resources/inputs, Promotes investment by external sources/parties…
	Technological capital	Action enhances the technological capital of the region by promoting/incentivizing deployment and utilization of new climate friendly technologies, Enhances the technological capital of the region by promoting/incentivizing innovation/development of new technologies, Enhances the local technological capability of the region by promoting diffusion (commercialization) of certain technologies (through demonstration of the environmental effectiveness of the technologies/cost reduction), Enhances the technological capital of the region by reducing/meeting the 'learning costs' of adoption of new technologies, i.e., the additional cost involved in adapting to the new technology, Enhances the 'spill-overs', that is, transfer of the knowledge or the economic benefits of innovation/technology adoption amongst the potential users in the region…

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Reduction in Undesirable Impacts	High emission lock-in	Duration of lock-in compared to a pre-determined period Scoring guide High (-1), Low (+1)
	Import intensity	Share of imports to total input value Scoring guide: increases (-1), declines (+1)
	Impact on domestic manufacturers	Whether it puts domestic manufacturers out of business? Scoring guide, yes (-1), no (+1)
	Diversion of resources	Does the action need government support that necessitates limiting support to MDG programs? Scoring guide, yes (-1), no (+1)
	Livelihood losses	Does implementing the action leads to loss of livelihood? Scoring guide, yes (-1), no (+1)
	Conditionality of support	Does the international support impose conditionalities other than MRV (e.g., IMF's structural adjustment program)? Scoring guide, yes (-1), no (+1)
	Hazardous waste	Does the action produce hazardous waste? Scoring guide, yes (-1), no (+1)
	Balance of payments	Does the action have potential to negatively affect balance of payments? Scoring guide, yes (-1), no (+1)

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