Annual Status Report on Nationally Appropriate Mitigation Actions (NAMAs)

2011

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Foreword

Ecofys, the Energy Research Centre of the Netherlands (ECN), and the Centre for Clean Air Policy (CCAP) are pleased to present the first Annual Status Report on Nationally Appropriate Mitigation Actions (NAMAs).

Since the birth of the NAMA concept back in Bali in 2007 and its formalisation in the Copenhagen Accord and Cancun Agreements, many countries have started to develop NAMA ideas and proposals. At the same time many aspects of the policy architecture around NAMAs are yet to be defined. There are no formalised processes and few guidelines on NAMAs are available.

The bottom-up NAMA activities by countries provide valuable experiences and insights for the development of the international policy architecture. The Annual Status Report intends to capture these activities and experiences, building on the knowledge of three organisations closely involved in the development of NAMAs and the associated policy debate.

The report includes an up to date snapshot of current NAMA developments around the world as well as an analysis and overview of lessons learned in NAMA development. Here the focus will be on supported NAMAs as these provide the most valuable insights into the way in which climate cooperation between developed and developing countries could work. In addition the report gives an overview of the current state of the political debate around NAMAs, highlighting the main open issues and possible ways forward.

The intention of the report is to provide up to date information and input to policymakers, negotiators and other parties involved in climate change mitigation in order to stimulate further action on the ground and to accelerate decision making processes at the international policy level.

The NAMA Status Report 2011 is a first, concise edition. Further editions will follow on an annual basis. Future editions will seek the participation of a larger number of organisations involved in NAMA development and implementation, thus presenting an even wider spectrum of experience and analysis.

Scaled-up action and financing to reduce emissions in developing countries (in addition to more significant domestic emission reductions by developed countries as currently proposed) is necessary to keep the increase in global average temperature below 2°C above pre-industrial levels. NAMAs can play a significant role here. Urgent action is required as global emissions continue to rise.

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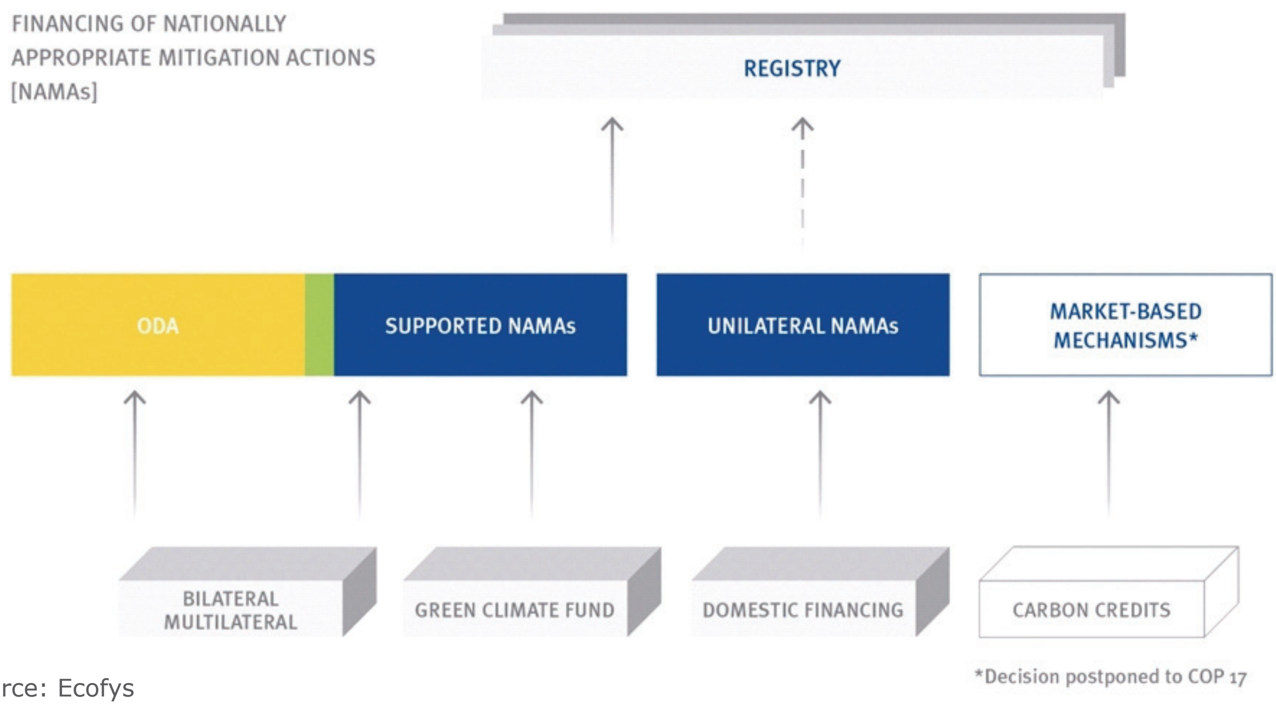
1. Introduction to Nationally Appropriate Mitigation Actions (NAMAs)

Nationally Appropriate Mitigation Actions (NAMAs) are one of the cornerstones of the international climate negotiations. The term NAMA was first introduced in the Bali Action Plan of 2007 (UNFCCC, 2008; paragraph 1 b ii), where all countries that are a Party to the UNFCCC agreed to negotiate on "nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner".

Many developing countries submitted nationally appropriate mitigation actions to the UNFCCC, following the December 2009 Copenhagen Accord presented at the 15th conference of the parties (COP) in Copenhagen (UNFCCC, 2010a; paragraph 48). One year later in Cancun all countries agreed, that developing countries would take "nationally appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity-building, aimed at achieving a deviation in emissions relative to 'business as usual' emissions in 2020" (UNFCCC, 2010b,c). The NAMA submissions were "anchored" in a document (UNFCCC, 2011a).

At the international policy level many aspects surrounding the development, implementation and support of NAMAs are still undefined: There is no official definition of what a NAMA is or may be; there are currently no formal channels in place for presenting information on proposed NAMAs or available finance, technology and capacity building support; also systems and processes for the monitoring of implemented NAMAs and NAMA support remain unclear. Hence the nature and form of the NAMAs submitted to the Copenhagen Accord and the Cancun Agreements are very diverse.

Figure 1 provides a schematic overview of the emerging political landscape of NAMAs and NAMA finance.



Source: Ecofys

Figure 1: NAMA Overview

There are two types of NAMAs under discussion based on the sources of funding:

1. Unilateral NAMAs which are financed and supported entirely by the host country; and
2. Supported NAMAs which are supported internationally.

A third type of NAMA, financed through carbon credits and referred to initially as credited NAMAs, can effectively be subsumed into what is being discussed under new market mechanisms in the negotiations. Although some would still argue to keep the distinction of market based or credited NAMAs.

International finance for NAMAs is likely to come from either bi- or multilateral sources, similar to (and to some extent overlapping with) official development assistance (ODA), and official climate finance such as through the planned Green Climate Fund mandated by the COP. A NAMA Registry is planned to be set up which will integrate information on supported as well as potentially unilateral NAMAs as well as available international support for NAMAs (UNFCCC, 2010a).

Against the background of political uncertainty, many developing countries are in the process of identifying, selecting and preparing proposals for potential NAMAs. These bottom-up activities provide valuable lessons learned for the development of the NAMA framework at the international policy level, informing the policy debate and paving the way for international decisions and agreements.

2. NAMA development

This section provides an overview of the NAMA development activities to date. It includes a summary of the official NAMA submissions made to the UNFCCC as well as an overview and analysis of supported NAMAs currently under development.

2.1 Overview of NAMAs submitted to the UNFCCC

A number of countries have officially submitted NAMAs to the UNFCCC, which have been published by the Secretariat (UNFCCC, 2011). These submissions vary in nature ranging from national climate targets to specific actions and projects, including both unilateral as well as proposed supported NAMAs. Table 1 provides an overview of the countries which currently submitted NAMAs according to the NAMA type. Types are explained in Box 1 below.

As can be seen from the distribution of NAMAs in Table 1, most submissions relate to strategy development, policies and programmes and projects. A number of countries also submitted national targets, mainly reduction targets below business as usual projections. Most NAMAs also fall in the category of supported NAMAs although many countries have not specified whether, and for which NAMAs, support would be required.

The NAMAs submitted to the UNFCCC are usually described only in a very general nature. Expected

Type		Unilateral NAMAs	Supported NAMAS	Not available
Emission targets	**Climate neutrality**	Maldives	Bhutan, Costa Rica, Papua New Guinea	
	Below business as usual	Indonesia, Israel, Korea, Republic of, Singapore	Brazil, Chile, Mexico, Papua New Guinea, South Africa	
	Below base year	Republic of Moldova	Antigua and Barbuda, Marshall Islands	
	Emissions per GDP	China, India		
Strategies and plans			Afghanistan, Georgia, Madagascar, Maldives, Mauritius, Mexico, Sierra Leone	Algeria, Cote d'Ivoire (Ivory Coast), Eritrea, Israel, Sierra Leone, Togo
Policies and programmes		Argentina, Bostwana, Colombia, Ghana	Argentina, Bostwana, Brazil, Central African Republic, Chad, Chile, Colombia, Ghana, Jordan, Madagascar, Sierra Leone, Tunisia, Mexico, Peru, South Africa	Armenia, Benin, Cameroon, Congo, Cote d'Ivoire (Ivory Coast), Eritrea, Gabon, Indonesia, Macedonia, the former Yugoslav Republic, Mauritania, Mongolia, Morocco, Peru, San Marino, Sierra Leone, Tajikistan, Togo
Projects		Ghana, Ethiopia	Central African Republic, Chad, Congo, Ethiopia, Ghana, Jordan, Madagascar, Sierra Leone, Tunisia, Mexico, Peru	Benin, Cambodia, Cameroon, Congo, Gabon, Macedonia, the former Yugoslav Republic, Mongolia, Morocco, Sierra Leone

Table 1: Overview of NAMA submissions to the UNFCCC

- **Emission targets** are national emission reduction targets which may include carbon neutrality targets, reduction targets below projected business as usual emissions or below a certain base year and intensity targets such as the case of China which seeks to reduce CO2 emissions per unit of GDP. In the strict sense, targets are not actions and may therefore be considered part of the enabling framework for NAMAs rather than NAMAs in their own right.
- **Strategies** and plans are a set of actions with a unifying goal and include, e.g., an e-mobility plan for Chile (Ecofys, 2011) and an urban transport master plan for Vientiane in Lao People's Democratic Republic (MOEJ and GEC, 2011).
- **Polices** and programs are a set of actions pursued by a government and include, e.g. the integration of policies into an existing framework to support fuel switch activities in Montenegro (Climate Focus, 2011).
- **Projects** are specific actions and include, e.g. a sustainable bio-waste treatment project in Tunisia (Wuppertal Institute, 2011) and the establishment of wind and solar power systems in South Africa (Winkler, 2010).

Box 1: Types of NAMAs submitted to the UNFCCC

emission reductions and the type and level of support needed are specified only in exceptional cases. The submissions so far do not yet constitute "bankable" activities. Therefore many countries have engaged in a process to develop full NAMA proposals, as discussed in the next section.

2.2 Overview of supported NAMAs under development

Many countries currently engage in the development of full NAMA proposals, after the general intent of developing NAMAs in the submissions to the Copenhagen Accord and Cancun agreements.

This section is based on a scoping study on publicly available documents and reports on the development of supported NAMAs. Activities related to development of supported NAMAs in non-annex I countries were first reported in 2009 and to-date, information on 30 NAMAs was included (Ecofys NAMA Database, 2011). As can be seen in Figure 2 below, NAMA development doubled in 2010 compared to the previous year. Consultations with experts suggest that the trend continues and that the development of many new NAMAs is currently under way. These have not yet been reported by Non-Annex I countries or by organisations providing support and are therefore not yet added to the database for 2011.

Countries developing NAMAs usually go through similar processes. Typical cycles start with concept note preparation, followed by the elaboration of a detailed proposal, implementation of the NAMA to completion of the action. However, following this development process is not mandatory and there are no requirements for specific activities within each stage yet.

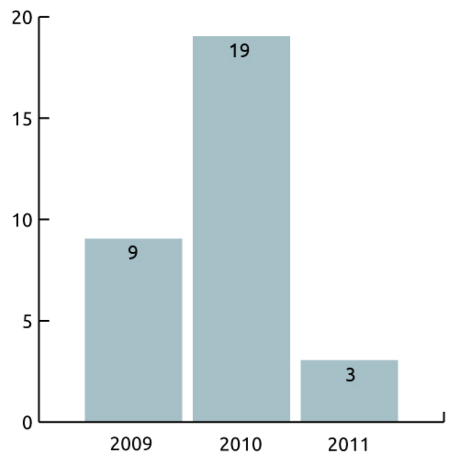


Figure 2: Start year of NAMA development (Source: Ecofys NAMA Database, 2011)

- A **NAMA concept** is an initial outline of a NAMA idea, including elements such as an objective, an outline of activities, suggestions on implementation and monitoring plans and estimates on financing requirements.
- A **NAMA proposal** is a detailed description of the proposed action, including elements such as the objective, proposed activities, expected outputs and outcomes including emission reductions, benefits and target groups, financing requirements and an implementation and monitoring plan. Such proposals are usually made by the respective governments or have their backing.
- NAMAs are implemented by national governments. **Implementation** can be supported by international organisations through capacity building, technology transfer and/or financial assistance.

Box 2: Characterization of NAMA stages based on current developments

NAMAs that were presented so far vary significantly with regard to their level of detail on proposed actions, expected GHG mitigation and co-benefits, and proposed monitoring, reporting and verification (MRV) methods. According to the description of NAMA stages that are given in Box 2, 19 NAMAs can be classified as concepts while 11 are in the proposal stage. No NAMA has reached the implementation stage yet.

Countries in Latin America and the Caribbean lead the development of supported NAMAs so far, followed by Asia, Africa and Europe (Figure 3). Compared to the geographical distribution of project activities under the Clean Development Mechanism (CDM), early trends in NAMA development show a broader involvement of regions, especially of Africa which is highly underrepresented under the CDM.

With regard to the sectoral distribution of NAMAs, at present most activities are developed within the transport sector (Figure 4). This distinguishes current trends in NAMA development from the sectoral distribution of project activities under the CDM where only 0.6 percent of projects are related to transport (UNEP RISOE Centre, 2011). Other NAMA development activities are carried out within the following sectors: energy, waste, industry, buildings, forestry and agriculture.

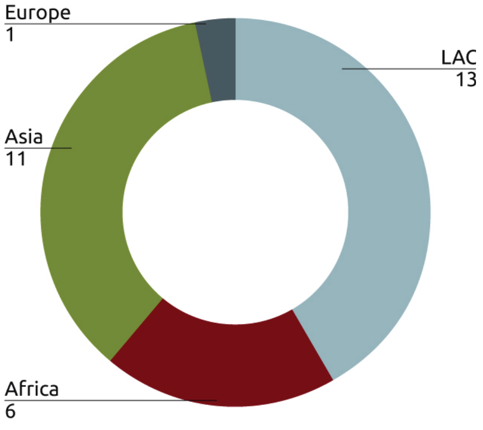


Figure 3: Regional distribution of NAMAs (Source: Ecofys NAMA Database, 2011)

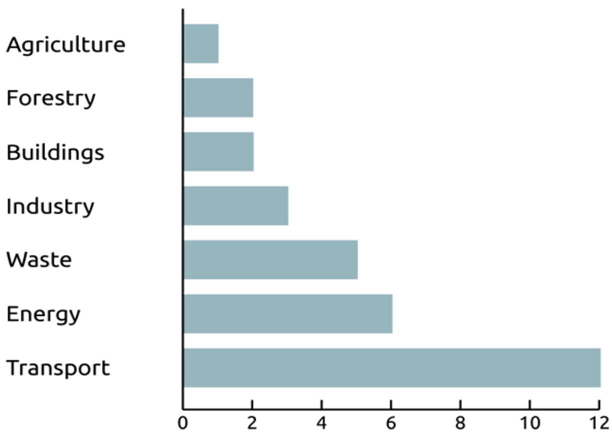


Figure 4: Sectoral distribution of NAMAs (Source: Ecofys NAMA Database, 2011)

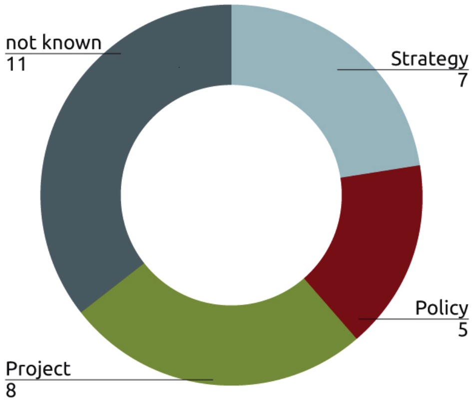


Figure 5: Type of action (Source: Ecofys NAMA Database, 2011)

NAMAs can further be grouped according to the type of action that is being proposed or implemented (see Box 1 for definitions). NAMAs that have been proposed so far fall into the categories of strategies/plans, policies/programmes and projects, with a relatively equal distribution between the three categories.
Table 2 presents some examples of current NAMA development activities and international organisations that have financed or contributed to financing the development of these activities.

Current NAMA finance by developed countries focuses on supporting NAMA development and capacity building. No finance for the implementation of NAMAs has so far been reported.

Country	Sector	Objective of NAMA	Stage of NAMA development	International funders
Columbia	Transport	Building of planning and implementation capacity to develop NAMAs in the transport sector	Proposal	Inter-American Development Bank (IBD)
Chile	Transport	Development and implementation of an e-mobility readiness plan	Proposal	International Climate Initiative (ICI) of Germany
Lao People's Democratic Republic	Transport	Development of an urban transport masterplan for Vientiane	Concept	Ministry of the Environment Japan (MOEJ)
Mexico	Buildings	Development of a concept to support energy and energy efficiency measures in residential housing	Proposal	German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
Peru	Waste	Development of a solid waste inventory and assistance with formulating a national solid waste strategy	Proposal	Nordic Group on Climate Change (NOAK), Nordic Environment Finance Corporation (NEFCO)
Montenegro	Energy, forestry	Integration of policies to support fuel switch activities with policies for the establishment of a bio-energy market	Concept	Lux-Development
Tunisia	Energy	Implementation of individual projects to promote wind and solar energy, biogas, and the introduction of energy efficiency measures in the transport and building sector	Proposal	German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)

Table 2: Examples of current NAMA development activities (Ecofys NAMA Database, 2011)

3. Selected existing NAMA initiatives

This section provides information on five specific NAMA activities to highlight different approaches and give a flavour of activities happening around the world. These include NAMA activities in Kenya, Chile, Mexico and Indonesia as well as a NAMA dialogue in Latain America and Asia.

3.1 Kenya: Integration with National Climate Change Action Plan

In April 2010, the Government of Kenya (GoK) published its National Climate Change Response Strategy (NCCRS). It covers an assessment of why climate change is important in the Kenyan context, and provides information on potential adaptation and mitigation measures, and their alignment with Kenya's development goals. To move from strategy to implementation, GoK initiated an ambitious Climate Change Action Plan in early 2011, following a process of inter-ministerial collaboration and stakeholder consultations. This Action Plan process consists of 8 thematic subcomponents concerning climate-compatible development. Alongside NAMAs, the Action Plan sub-components cover adaptation, technology planning, enabling policy and regulatory framework, finance, and knowledge management and capacity development.

The Action Plan process is overseen by a high-level task force that includes different ministries, representatives from civil society, the private sector and academia and is chaired by the Ministry of Environment and Mineral Resources (MEMR). In addition, further national experts and stakeholders are involved in the process through thematic working groups and stakeholder meetings. The Action Plan process, work on which started in August 2011, is supported by CDKN, COMESA, DFID and other development partners. The NAMAs subcomponent is executed by a consortium of IISD, ECN and ICRAF.

Kenya's approach to identifying and developing NAMAs is part of a larger coordinated effort to address climate-compatible development, and as such closely integrates with, and aligns to other aspects of climate-compatible development policies and programmes (i.e. adaptation, low-carbon development planning, regulatory and institutional aspects). This allows for a better understanding of how NAMAs fit into the broader context of Kenya's National Climate Change Response Strategy. It points to potential synergies with adaptation actions, and can show how NAMAs could be used to leverage private sector financing. Moreover, the inter-ministerial and stakeholder oriented process also allows for building a better understanding of what NAMAs can mean for Kenya, and the process contributes to ownership of the outcomes of the Action Plan. Early lessons from Kenya show that developing NAMAs is a complex process which requires continuous dialogue among all stakeholders, and that it is important to secure ownership and pursue clarity on mandates at a high political level – all stakeholders should have a common, clear understanding on who takes decisions and when.

3.2 Chile: Local partnership

Chile has announced a national target to reduce emissions by 20% by 2020 below BAU levels. In this context, the Ministry of Environment in Chile consulted in 2010 with other national ministries on mitigation options in different sectors which might be turned into NAMAs to seek international support. The Transport Ministry identified four mitigation options: energy efficiency, modal shift, low and zero emissions vehicles and traffic management in the transport sector. Given the growing impact of the transport sector (road transport in particular) it was decided to develop an exemplary NAMA in the transport sector, with technical support from Ecofys and financial support from the International Climate Initiative of the German Government.

The NAMA selection and development process was based on a participatory approach at two levels. Firstly, at the level of the wider stakeholder community, different NAMA options for the transport sector were discussed at a stakeholder workshop. The workshop was attended by about 50 people representing a wide range of organisations from the public and private sector, academia and civil society. Secondly, at the government level, a series of meetings, consultations and a high-level workshop were designed to involve different ministries. Local transport and political specialists guided these government and stakeholder engagement processes. Engaging local experts proved to be an important part of the technical assistance process, not only for the local knowledge and in depth understanding of the political landscape that local partners provide, but also to gain access to stakeholders and have credibility at the local level.

Following extensive consultations, the Chilean government decided to focus the transport NAMA on electric mobility as part of the Low and Zero Emissions Vehicle Policy to be launched. The objective of the "E-mobility Readiness" NAMA is to prepare Chile for the widespread introduction of grid-enabled vehicles focusing initially on the greater Santiago area. The target is to have 70.000 grid-enabled vehicles on the road by 2020 achieving estimated emissions reductions of 2.7 million tonnes of CO2 by 2035. The NAMA is based on three main pillars – market creation, infrastructure development and R&D – with a range of activities planned under each component. The implementation will be supported by cross cutting communication and outreach activities as well as a comprehensive monitoring plan based on GHG and wider development benefits as well as process based indicators to monitor the implementation of the activities.

The NAMA proposal will be published in early 2012. Implementation is scheduled to start in mid 2012 depending on the availability of support.

3.3 Mexico: Stakeholder involvement

A NAMA study in Mexico aimed at developing a pilot project or programme in the transport sector which could apply for NAMA funding. The project involved analysing the emissions situation in Mexico, reviewing potential transport activities, selecting one in conjunction with government stakeholders and undertaking a participatory process to define the activities and financing required for the NAMA.

The project was carried out by SEMARNAT, supported by Ecofys and CTS, with funding from the Dutch Government. A NAMA was developed to extend and expand the Federal Mass Transit Programme (PROTRAM) that was launched in 2009 to improve urban transport in Mexico. PROTRAM provides funds for investment in mass-transit infrastructure – particularly Bus Rapid Transit (BRT) lines – through direct federal financial participation and provision of loans and guarantees. Operating complementary to PROTRAM is the Urban Transport Transformation Project (UTTP) – an initiative supported by the Clean Technology Fund (CTF) and the International Bank for Reconstruction and Development (IBRD) – that seeks to increase the number of integrated mass transit corridors in Mexico. The UTTP runs until 2016 and can finance projects which PROTRAM could not, for example, related infrastructure like pedestrian and bicycle facilities as well as low-carbon bus technology (The World Bank 2009).

Stakeholder participation played an important role in developing a NAMA based on these existing initiatives. Consultations and a stakeholder workshop were held after the decision to focus on mass transit and PROTRAM had been made with the objective of defining activities which could contribute to increasing the mitigation potential of the Programme. Building on existing initiatives meant a more focussed group of stakeholders could be involved; participants could be targeted through their prior involvement with PROTRAM and the UTTP, and their input and views could build on their experiences with those programmes. Through the process, stakeholders gained an understanding of how a NAMA could help them achieve their objectives to improve mass transit and at the same time achieve the mutually beneficial result of mitigating GHG emissions.

Within the developed NAMA there are three lines of action – capacity building, methodology development and financing of integrated transport systems – with a number of sub-activities running over different timeframes. The final NAMA proposal will be presented to the international community at COP17 or in early 2012.

3.4 Indonesia: Learning by doing in the transport sector

Climate change mitigation has become an important policy goal in Indonesia, particularly after the Presidential Decree establishing a voluntary emissions target of 26% below BAU in 2020, and 41% conditional upon international support. The recently launched National Action Plan to reduce GHG emission (RAN-GRK) is developed to meet these targets, and the actions listed therein are the basis for NAMA development in Indonesia.

In order to advance the new climate agenda, the Ministry of Transport has established an internal Working Group on transport and climate change, which has a special focus on NAMAs. Based on the transport actions listed in the RAN-GRK a long-list of potential measures that could be developed as a pilot supported NAMA was discussed. It appeared that the actions in this list could be grouped into four potential policy programmes: fuel efficiency, freight, rail and urban transport.

Based on screening criteria including ease of implementation, co-benefits, costs and MRV, the urban transport programme was chosen for development of a pilot-NAMA. This NAMA builds strongly on the actions listed in the RAN-GRK and includes measures such as public transportation, alternative fuels, traffic management, non-motorised transport, parking management and efficient vehicles. The development of this internationally supported NAMA is supported by Germany and the TRANSfer project. The Gesellschaft für Internationale Zusammenarbeit (GIZ) leads the project, while Policy Studies provides technical assistance on transport NAMA development.

3.5 MAIN: Advancing high-impact NAMAs

The Mitigation Action Implementation Network (MAIN) was launched in early 2011 to assist middle-income countries in Latin America and Asia to implement high-impact climate change mitigation actions, or NAMAs. This initiative also seeks to catalyze the establishment of a collaborative, regionally owned network of decision makers and practitioners. The MAIN initiative, founded by the Center for Clean Air Policy (CCAP) in partnership with the World Bank Institute (WBI), and in collaboration with regional partners, is promoting the exchange of best practices among developing countries that are preparing NAMAs and bringing donor countries together with NAMA developers to create a better understanding of strategies to make NAMAs attractive to possible funders as well as designs that will best support effective developing country policy outcomes. The MAIN project is made possible with a grant from the German International Climate Initiative and with additional support from WBI's Carbon Finance-Assist Program, the BP Foundation and the Dutch and Swedish governments.

The project is comprised of a series of regional dialogues, or "policy academies," in which climate negotiators, finance experts, industry/NGO representatives and policymakers central to the design of NAMAs in each country advance efforts to design, implement, and leverage financing for NAMAs that are consistent with national development plans. MAIN participant country teams are working together to identify and develop efficient mitigation actions, to benefit from south-south learning exchanges, and to receive practical advice from their peers and outside experts. The initiative also includes a series of global dialogues and policy lunches designed to shape climate policy at the international level; web-based distance learning sessions between in-person meetings; and a major effort to identify and disseminate best practices in NAMAs, financing, and monitoring, reporting, and verification. A new component of this project will include hands-on support for specific NAMAs in Latin America.

The MAIN initiative is providing project participants with the ability to design bottom-up strategies informed by successful, on-the-ground experiences in other countries. It is also helping participants understand how climate finance can best support effective policy outcomes and will ultimately feed into the UN climate negotiations. This initiative complements and enhances the domestic planning efforts already underway in many developing countries.
Many parts of the international climate policy architecture around NAMAs still need to be defined and there are many uncertainties around the operational structure of related processes, such as the finance and technology mechanisms as well as reporting requirements and control procedures.

4. Lessons learned in NAMA development

This section provides an overview of some of the lessons learned based on the experience of three organisations - Ecofys, ECN and CCAP - with NAMA development and capacity building in various countries around the world. Following a synthesis of common lessons learned, each organisation will provide a brief account of their individual insights and experiences with NAMA development.

Political ownership and leadership are essential
High level political ownership is essential to drive the NAMA development process. Political ownership is important for setting national priorities and will improve the chances of the NAMA being implemented. The NAMA tool or mechanism is still abstract and the current international policy discussions are often distant from the realities of the implementing policymakers. At the same time policymakers need to communicate the benefits throughout their institutions and secure buy-in at the national level. This requires leadership to endorse the NAMA development process and to avoid disengagement from government stakeholders.

Coordinated inter governmental processes help
NAMAs often require the involvement of different ministries and government organisations. Indeed it is beneficial to share decisions in the NAMA process

Center for Clean Air Policy (CCAP)

Based on experience with developing countries in Latin America and Asia as well as various contributing countries under the Mitigation Action Implementation Network (MAIN) and work with Mexico and other countries on development of NAMAs and sector-based mitigation approaches, we have learned that NAMA development requires a strong commitment by both developing and developed countries.

Developing country commitment. The design and implementation of NAMAs generally involves multiple parties, including various levels of government, the private-sector, national citizens and other stakeholders. Inclusion of and coordination among these groups is essential to successful NAMA development. In particular, engaging affected stakeholders is important to understanding the potential barriers to NAMA implementation. However, attaining this level of collaboration can be a challenge for developing countries. Up front attention to developing an inter-ministerial organizational plan for identifying and developing NAMAs, including plans for engaging third parties, coupled with high level political support for NAMA activities, can lead to improved communications and coordination across ministries. A good internal process can help generate NAMA concepts, attract donor support, and result in outcomes that enjoy a higher level of political agreement.

Developed country commitment. It is essential for developed countries to set aside substantial funds for NAMA development, potentially through a new NAMA facility. While the developing countries we work with have generally been successful in conceptualizing NAMAs that will achieve emissions reductions in the context of sustainable development, before they expend too much costly effort on in-depth analysis of particular NAMAs, they want some reassurance that the NAMAs they are developing will receive the required assistance. They want to know what information will be required in NAMA submissions, both by providers of assistance and the UNFCCC, and how this information will be evaluated. Such expectations could be conveyed by providing input on development of a voluntary supported NAMA template. Developing countries also seek further clarity on the levels of support available for NAMA implementation. While the NAMA registry can serve this function, before such information can be shared via a registry, developed countries must first decide on their commitment to providing the larger scale resources needed to support NAMA implementation.

across government in order to maintain broad buy-in for NAMAs, even if the political landscape changes.

Up-front attention to setting up an institutional structure involving different parts of government for identifying and developing NAMAs can improve communication and coordination across ministries as well as attract donor support. Clarity on mandates avoids tension between parts of government and delays in the NAMA development process.

Stakeholder participation builds support

NAMA development should be a locally driven process. Participatory processes involving stakeholders during the NAMA development phase have proven to be useful and help to build buy in for the NAMA at the stakeholder level. This in turn supports successful implementation as complex NAMAs will require concerted action between different stakeholder groups.

Moreover, the involvement of stakeholders is a valuable source for acquiring and checking information on the current state of affairs and the possibilities for NAMAs. Through their involvement, they can directly and indirectly contribute to inform decisions on which NAMAs to develop, and how. Affected stakeholders will have the best knowledge of barriers to NAMA implementation and potential negative development impacts.

Regular and open communication helps manage expectations

NAMAs are still abstract in scope and definition, and there is little clarity on the amount of finance available for NAMA implementation and how it will be deployed. This can make it difficult to get commitment from stakeholders, who typically need to invest time and resources to seriously engage in the complex decisions on NAMA development. Allowing for regular dialogue and taking stakeholder concerns and comments seriously will support their continuous engagement in the process.

Framing of NAMAs and their potential contribution to development, is significantly different from the existing 'carbon market' and requires a different mindset, particularly for the private sector to benefit from new investment opportunities. Continuous dialogue can help address this change of perspective and manage expectations accordingly.

Ecofys

Based on our experience with NAMA development and capacity building in different parts of the world we want to highlight two particular lessons learned from our engagement at the country level: the importance of locally driven, stakeholder processes and the value of flexibility and openness in trying and testing different approaches.

It has been said before but cannot be emphasised enough. Many people ask what a good NAMA is. We believe that a good NAMA is a NAMA that has evolved out of a locally driven process and is embedded in the host country's policy objectives, responding to different environmental, social and economic development needs. Especially transformative, sector based NAMAs typically involve many different stakeholders. Involving these in open, participatory processes helps to ensure that the NAMA is grounded in the local reality and secures buy in from actors to support the implementation. In addition, involving different stakeholders in NAMA activities greatly contributes to expanding local knowledge and awareness, as many individuals and organisations learn about this new policy tool.

"The perfect is the enemy of the good". New tools require learning and testing, sometimes through a process of trial and error. There is currently little guidance and best practice available on NAMA development. More so, no NAMA has received support for implementation, which would provide true insights into best practice approaches on success factors for finance and implementation. At this incipient stage of the NAMA debate one needs to take the time and be open to test and critically review different approaches at the risk of imperfection. In the light of urgency, it is better to have the theoretically second best option implemented than aiming for the best option which never sees the light of day.

Local experts need to drive the process
Local expertise and knowledge is essential. The involvement of local experts in the NAMA design process ensures that the NAMA is grounded in the local realities. It may also improve access to key stakeholders and adds credibility to the process nationally. International expertise in NAMA development is helpful especially at this early stage of NAMA development to build capacity at the local level and to make the national action compatible with international requirements/ expectations.

NAMA development may require data and time
The process of identifying, prioritizing and selecting NAMAs requires a solid fact base, and the ability of decision makers to make informed decisions and get these accepted. Initially, there may be insufficient data and (technical and institutional) capacity. Data improvement and capacity building can be time-consuming, but need not hold up NAMA development.

As in any policy-making process, the involvement of different parts of government and other stakeholders requires time. In particular, since there is little experience with NAMAs, institutional arrangements and stakeholder processes may encounter start-up challenges which need to be allowed for in the process.

Flexibility in the process helps
Although different process designs and templates are emerging, there is as yet little real experience on how best to design a process for NAMA development. Moreover, countries have different starting positions and governance structures. This requires flexibility to tailor (and if necessary update) the approach to the specific country situation.

Especially at this early stage in NAMA development, it is useful to allow for flexibility in the process and regular reviews. Feedback from stakeholders may call for reassessing the focus and scope of the NAMA development process. Allowing this flexibility introduces uncertainty on time and resources needed, but ignoring it can go at the expense of ownership and buy-in.

ECN

Experience assisting national governments on NAMAs has demonstrated the importance of **aligning technical and political processes when developing NAMAs.** Decision making, with regards to NAMAs, will not be built on quantitative analysis alone. It must also take into account political realities and priorities.

A national NAMA development process will draw heavily on technical input such as emissions data, mitigation scenario analysis and the latest insights on clean technologies and appropriate policy instruments. While this technical input is indispensible, some choices and trade-offs are largely ‘political’ in nature and should, therefore, be made by informed policy decision makers (and not by the technical team alone). This includes decisions on assigning roles and responsibilities, choosing which NAMAs or sectors have priority for further development, and designing financing/support structures.

Experience and best practices show that it is important to have clarity on roles and responsibilities of both the technical and the policy contributions to the NAMA process. Once agreed, a common understanding on this should be communicated to all stakeholders. Lack of clarity can lead to misunderstandings and, if not resolved, may negatively affect ownership and buy-in within government, and credibility of the process with stakeholders.

The technical team can request prompt guidance and choices from policy decision makers, but typically has limited control over the timing of NAMA development. The political process will ultimately determine the rate of progress, which requires a certain degree of flexibility from the technical team. This need for flexibility may contrast with planned schedules and allocated resources, especially when involving external (international) technical assistance. Careful consideration of the interaction between policy and technical input from the start can greatly contribute to ‘smooth’ NAMA development.

Flexibility in the design and monitoring is nationally appropriate

Including sustainable development and other non-GHG metrics in a NAMA proposal appears to be common among NAMAs under development and may help build domestic political support for the NAMA. It also echoes the transformative nature of NAMAs. In addition, developing an estimate of business-as-usual emissions and estimated reductions on a sector level can be a challenging exercise requiring numerous assumptions. Both may call for offering flexibility in the metrics used to estimate emission reductions and track NAMA success.

Best practice or guidance would assist countries

Despite the need for flexibility, a number of countries are seeking guidance on the NAMA development process. Many countries in the process of identifying and developing NAMAs want to know what information will be required in NAMA submissions, both by providers of assistance and the UNFCCC, and what the priorities of NAMA funders will be.

Building on existing initiatives is helpful

Building on an existing policy framework or overcoming a specific implementation barrier can enable a country to more quickly define a compelling NAMA proposal. While not a prerequisite, low carbon development strategies can be a useful starting point for the identification of NAMAs. In some cases existing or proposed sustainable development policies can even be ‘packaged’ as a NAMA with little need for a NAMA development process. At the same time, defining a NAMA from scratch can be more supportive of transformational actions.

5. Policy level – main themes and open issues

Many parts of the international climate policy architecture around NAMAs still need to be defined and there are many uncertainties around the operational structure of related processes, such as the mechanisms for delivering finance, technology and capacity building support as well as reporting requirements and control procedures. Advances in the discussion and concrete decisions are expected to be taken at COP17 in Durban. The main themes of the discussions and open issues are outlined below.

5.1 Defining NAMAs

There is still no clear definition of what a NAMA is beyond the text in the Bali Action Plan. Many countries have formally submitted NAMAs to the UNFCCC (2011) following the Copenhagen Accord and Cancun Agreements. These submissions vary in nature, ranging from specific actions and projects to wider policies and overarching national targets.

The differentiation of domestically supported and internationally supported NAMAs is widely accepted in the policy community. However, some still argue that a distinction between domestically supported and internationally supported NAMAs is difficult as all internationally supported actions will also have unilateral elements.

NAMA development activities on the ground contribute greatly to the definition of NAMAs. From these learning by doing experiences clearer definitions of what constitutes a NAMA are starting to emerge. The current NAMA pipeline suggests that NAMAs typically go beyond specific, individual projects and comprise longer term strategic and transformative policy interventions. National reduction targets as well as low carbon development strategies (LCDS) provide a useful strategic framework for the identification and selection of effective NAMAs. Conversely, NAMAs can be a good starting point for the development of LCDS.

5.2 Financing NAMAs

There is consensus that a broad range of finance (and investment) is needed in order to achieve the level of mitigation demanded by science. Developed countries agreed to provide US$ 30 billion in fast-track financing between 2010 and 2012 and to mobilise US$100 billion per year by 2020 of additional climate support with a balanced allocation between mitigation and adaptation. No decisions have been made so far on the institutional structure for supporting and delivering NAMAs. The funding for NAMAs may come from a number of different sources, including:

- COP mandated public funds – GEF, Green Climate Fund (GCF)
- Non COP mandated public funds – multilateral, bilateral, national budgets
- Private funds: private sector investments and potentially the carbon market (if new market mechanisms are considered NAMAs)
- Alternative sources of finance

The question of balance between public and private funds is not solved. Some argue that most funds should come from public sources[1] with a large share through the Green Climate Fund (GCF). However, some research suggests that only a small percentage of finance and investment available to support mitigation in developing countries will come from public sources, and of this an even smaller percentage may be channelled through the GCF. The question about ways to leverage private sector sources to fill the gap is still open.

Moreover, the additionality of climate finance is also debated. Although countries agreed in Cancun on the necessity to make climate finance additional, they don’t agree on ways to ensure the additionality.

1 See for example: Brown and Jacobs (2011).

A pragmatic view has it that public climate funds may be used to develop the legal, regulatory and policy frameworks to leverage private sector investments. In particular, the international support provided for a given NAMA can help create the appropriate risk-return conditions to support new private sector technological investments. Examples include addressing technology operational risk with technology performance guarantees; and increasing private sector returns through capital cost subsidies.

To speed the financing and implementation of NAMAs, significant progress is needed both to elaborate developed country commitments to NAMA finance and to clarify the process for matching actions with financial support. In addition, greater specificity on the amount of finance needed and on how the finance will be used within the designs of many NAMAs would be helpful.

5.3 Monitoring NAMAs

The Cancun Agreements set out that "… internationally supported mitigation actions will be measured, reported and verified domestically and will be subject to international measurement, reporting and verification" and that "…domestically supported mitigation actions will be measured, reported and verified domestically in accordance with general guidelines to be developed under the Convention." (UNFCCC 2010c)

So far enhanced and new monitoring, reporting and verification (MRV) guidelines are still discussed. Many Parties and observers have called for simple and pragmatic guidelines that are flexible to accommodate different types of NAMAs and which should not present barriers to the effective implementation of mitigation actions.

Some developing countries have concerns that over-elaborate requirements for information about proposed NAMAs, and possible MRV of this information, could be a backdoor means for developed countries to demand greater levels of information about, and scrutiny of, developing countries' activities and so impinge on their sovereignty.

The level of MRV will depend on the type of NAMA:

- Domestically supported NAMAs – are likely to fulfil less stringent requirements. MRV would be domestic according to general guidelines. It needs to be defined what "general" guidelines actually means.
- Internationally supported NAMAs – are likely to require more stringent MRV according to internationally agreed guidelines. Again details still need to be developed and agreed.

On the other hand, the MRV of the support from developed to developing countries needs to be considered. The Cancun Agreements state that a Standing Committee be established under the COP to assist on MRV of support provided to developing country parties (Paragraph 112). It's been suggested that MRV of support needs to comply with internationally agreed guidelines and that it should demonstrate the additionality of support beyond "business as usual". So far no processes have been agreed to comply with these principles.

The international MRV discussion currently focuses on reporting of GHG emissions at the national level and centres on reporting frequencies (National Communications and Biennial Reports– for developed countries – and Biennial Update Reports – for developing countries) and review procedures (International Assessment and Review (IAR) for developed countries and International Consultation and Analysis (ICA) for developing countries). As can be seen in Table 2 below, current discussions foresee the inclusion of information on NAMA support as well as domestically supported NAMAs in the Biennial Reports. However, it is not clear whether internationally supported NAMAs will also be included in any of the reporting processes, other than National Communications. The NAMA Registry will play a role here, however, the extent to which it will track internationally supported NAMAs (ie. the level of detail and quality of information) is still unclear. Some countries argue that if information on internationally supported NAMAs is included in the NAMA Registry additional reporting of NAMAs in, for example, Biennial Reports would duplicate efforts. The voluntary nature of the NAMA Registry and the fact that the scope of the information included in the Registry is still under debate puts a lot of uncertainty on the monitoring of internationally supported NAMAs.

At another, bottom up level, the MRV discussion focuses on how NAMAs should be monitored on the ground. These discussions are typically held amongst practitioners, NAMA developers and potential contributors and are currently not reflected in the international policy debate on MRV.

At the NAMA level the discussion centres on the metrics and processes for monitoring NAMA impacts. A balance needs to be struck between the desire to understand the outcome of the NAMAs and the quality of the data with the concern that stringent MRV requirements could pose a barrier to action and infringe on domestic sovereignty.

A number of developing countries are opting to include sustainable development and other non-GHG metrics in their NAMA proposals, and doing so may help build domestic political support for the NAMA. At the same time, estimating business-as-usual GHG emissions and reductions on a sector level can be a challenging exercise requiring numerous assumptions and resulting in considerable uncertainty. There may be advantages to offering developing countries flexibility in the metrics used to estimate emission reductions and track NAMA success.

In the absence of agreed monitoring guidelines, NAMA development on the ground provides insights into potential monitoring approaches and metrics to be used. Given the broad, transformative nature of NAMAs it is becoming clear that monitoring needs to go beyond direct greenhouse gas indicators to allow for the monitoring of wider, long term GHG impacts as well as benefits to sustainable development.

5.4 Operationalising NAMAs

In order to operationalise NAMAs and resolve some of the issues raised in the finance and MRV debate in a practical manner, specific tools are being discussed.

NAMA Registry
The establishment of a NAMA Registry is part of the Cancun Agreements. The registry's main function is to facilitate the matching of NAMAs with available finance, technology and capacity building support. In addition the registry is meant to provide a platform for recording NAMAs as well as for developing countries to gain recognition for (unilateral) NAMAs on a voluntary basis.

A number of countries have officially submitted views and more detailed proposals on aspects of the format and functionalities of the NAMA registry. Discussions during 2011 both in Bonn and Panama centred mainly around the following questions:

- How actively the registry facilitates matchmaking, as a rather passive web platform or as an integrated part of the Green Climate Fund.
- Whether the registry should include information on unilateral NAMAs or internationally supported NAMAs only.
- Whether there should be any definition of the type and scope of information (on NAMAs and support) to be included in the registry.

There is a fear that too many requirements with regard to information on NAMAs could provide a barrier for countries to submit NAMAs.

Parties widely recognise that the registry is an important piece of the international policy architecture to advance mitigation. The debate on what the registry will look like is set to continue in Durban. A first prototype is expected to be operational during 2012 with final agreement to be reached at COP 18.

NAMA Template
Linked to the discussion on the NAMA registry is the question on the standardisation of information on NAMAs and NAMA support.

A number of developing countries are seeking guidance on the type of information that will be required to generate interest and firm commitments of support from donor countries and institutions. Similarly, some contributing countries are seeking greater consistency in how NAMAs are presented to facilitate and speed up their own initial evaluations. Some countries fear that information formats by donor countries may vary greatly making the process of obtaining NAMA funding inefficient. Therefore several countries suggested development of a NAMA template, to be used on a voluntary basis, which sets out the key information that contributing countries will need to make their decisions on NAMA finance. Such a template could also be used in the future NAMA registry.

Yet other countries wish to see utmost flexibility in the way NAMAs are presented and disagree with the template approach. It is also important to consider that any requirements for standardisation of information should not become barriers, either in a time sense (e.g. developing and agreeing on templates) or regarding the substance of the required content (e.g. high hurdles for the nature or quality of data, raising cost and capacity building issues).

The testing of different templates in a bilateral context (in or outside the UNFCCC processes) could flag benefits and limitations of the template approach. It may pave the way for agreeing on a common template in the future or at least provide useful insights into the type of information required in the context of matching NAMAs with support.

	Developed countries		Developing countries	
	Emissions/Absorptions	Support	Internationally supported NAMAs	Domestically supported NAMAs
M/R	National Communications & Registry Biennial Reports		National Communications Registry Biennial Update Reports	National Communications Registry Biennial Update Reports
V	International Assessment and Review	International Assessment and Review	International Consultation and Analysis	International Consultation and Analysis

Source: Ecofys

Table 3: Status of MRV Debate

6. Conclusions

Nationally Appropriate Mitigation Actions that are internationally supported have the potential to become a cornerstone in international climate policy. The concept is broad and flexible and can be developed into a robust and working system of the scale needed to hold the increase in global average temperature below 2°C above pre-industrial levels.

At its current infancy stage, several institutional issues need to be resolved to help more NAMAs make the leap from proposal to implementation and prove out the notion that supported NAMAs can achieve large-scale emissions reductions from business-as-usual levels and present a meaningful contribution to the global climate solution.

The number of NAMA activities is vastly increasing. Numerous countries are developing NAMA proposals, several funding institutions are supporting such development activities and are getting ready to fund implementation of NAMAs.
Early experiences with NAMA development on the ground has provided important lessons learned on effective processes for NAMA development, such as the importance of political leadership and up front planning and coordination, the involvement of strong local partners, stakeholder participation and the embedding of the NAMA in national policy priorities. They also highlighted the importance of openness, transparency, flexibility as well as patience as NAMA processes are often complex and may take a long time. In addition, many developing countries recognise they need additional guidance from prospective funders to increase the chances that their proposed actions will receive the support required for implementation.

Many NAMAs currently focus on strategic, long term, transformational measures and national priorities. Some of the NAMA proposals presented suggest that emission reductions far beyond the scale of, for example, the CDM can be achieved. Short term GHG reductions are not necessarily a priority. This presents particular challenges to developing a pragmatic yet robust monitoring regime for NAMAs.

The practical experiences provide valuable insights for the international policy debate and may help shape the emerging definition of what constitutes a NAMA, including the scale of action, the approach to monitoring, the level of finance that might be required for various types of actions and the range of emission reductions that might be achieved.

Where international agreed guidance is lacking, learning by doing can be a positive way forward. Many more NAMA experiences will be required to provide insights to policymakers and to test the emerging policy architecture. In particular practical experience on taking NAMA proposals to actual implementation is now needed. This requires excellent NAMA proposals by developing countries and donor institutions ready to fund their implementation.

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