

A BEGINNER'S GUIDE TO NAMAS

Civil Society Edition

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About Carbon Market Watch

Carbon Market Watch scrutinises climate policy and advocates for fair and effective climate protection. The watchdog initiative is comprised by member organisations across the globe and is active at global, European and grassroots levels to advocate for stronger environmental and social integrity of climate policy. For more information, visit www.carbonmarketwatch.org

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Executive Summary

Nationally Appropriate Mitigation Actions (NAMAs) are a mitigation instrument for developing countries to take part in global efforts towards a long-term sustainable strategy for cutting emissions.

NAMAs exhibit a great potential as they move away from traditional offsetting and focus on developing countries' own contribution to global mitigation and sustainable development. They provide a good opportunity for sector-wide and sub-sector policy based emission reductions. Despite their potentially high prospects to deliver mitigation and sustainability benefits, only 11 NAMAs are currently being implemented and 140 NAMAs are still at the design phase.

This is partly due to a lack of financial support but also due to the lack of understanding about NAMA processes. For example, there are no universal guidelines on how NAMAs should be developed and implemented, or how impacts are to be measured, reported and verified. Moreover, publicly accessible information about NAMAs is limited and there is little clarity about how and to what extent civil society can take part in the design, implementation and monitoring of NAMA processes, how to enhance sustainability impacts and how to mitigate potentially harmful impacts.

Although NAMA capacity building activities for numerous stakeholders are being undertaken, initiatives aimed at building transparency, awareness and understanding by civil society have so far been neglected. Yet, public participation in all NAMA processes is essential and has numerous benefits: Effective stakeholder engagement can ensure sustainable development and the identification of economic opportunities invisible from a top-down perspective. Full participation can also inform NAMA policy processes at the national and international levels and can strengthen governance frameworks, public trust and acceptance. Hence, increased public participation will ultimately result in a higher level of environmental and social integrity, and gender sensibility of NAMAs.

This beginner's guide to NAMAs aims to build knowledge and understanding of NAMAs for civil society organizations and citizens who have little or no prior experience with NAMAs. Increased awareness should ultimately empower civil society to get involved in relevant NAMA processes, such as NAMA development and implementation as well as monitoring at the national level.

Introduction

Nationally Appropriate Mitigation Actions (NAMAs) are United Nations Framework Convention on Climate Change (UNFCCC) mitigation instruments still in their early stages but display a great transformational potential to mitigate climate change, deliver sustainable development and improve the livelihoods of local communities. However, the public understanding of the NAMA instrument is very low, especially with regards to how NAMAs are developed and how to involve civil society in the process.

This guide has been designed for the citizens, NGOs and activists that want to gain a quick understanding on the concept of NAMAs and/or get involved in the process of NAMA development There are already a number of cases where civil society is thoroughly engaged in the NAMA development process, however, the information on consultation processes in NAMA development is very limited. Also, there is a lack of awareness and knowledge on NAMAs among civil society that could allow a more meaningful public participation in the process.

The aim of this beginner's guide is to raise awareness and build on the knowledge of civil society to facilitate stronger involvement and foster information sharing of good practices. This guide offers a quick understanding of how NAMAs work, gives an overview of the NAMA process, finance flows and relevant stakeholders.

A brief history of NAMAs

The term NAMA first came up in the Bali Action Plan in 2007, where Parties were discussing a way to enhance national and international action on mitigation of climate change. As a part of the outcome, it was decided that developing countries would take NAMAs, in order to contribute mitigation and sustainable development in developing Countries.¹

The reasoning behind NAMAs was to provide a framework whereby all developing countries could contribute to tackling climate change. This concept is already embedded in the provisions and principles of the UNFCCC, which determines that all Parties should protect the climate system for the benefit of present and future generations of humankind, in accordance with their common but differentiated responsibilities and respective capabilities. For the first time, NAMAs should provide a way for developing countries to employ mitigation actions and account for their own emission reductions.

Following the Bali Action Plan, complementing provisions reached in Copenhagen (COP15, 2009),² Cancun (COP16, 2010),3 Durban (COP17, 2011),4 Doha (COP18, 2012),5 Warsaw (COP19, 2013)6 and Lima (COP20, 2014)7 molded the concept of NAMA into the mitigation instrument we know today. Overall, the aim of NAMAs is to contribute to domestic sustainable development while encouraging developing countries to reduce greenhouse gas (GHG) emissions. NAMAs are approved by developing countries' national governments and hence reflect national priorities. They are based on voluntary and 'nationally appropriate' actions, which allows for a wide scope of mitigation activity.

While providing the main idea of the NAMA concept, international climate negotiations have not provided a mandate for the development of international rules and procedures. This leaves room for countries to determine for themselves domestic NAMA elements and processes. For example, there is currently no official definition of a NAMA, no set of common regulations and procedures, no guidelines on how to develop and implement them, nor what kind of information NAMAs should entail.

One of the main challenges NAMA developers are faced with is the lack of financial support to pass from the development and design stage to the implementation stage. So far, the financial support made available does not match the large demand to implement NAMAs. The NAMA Facility has so far provided the largest part of financing for NAMAs. Another financial boost is expected once the Green Climate Fund (GCF) starts distributing half of its resources to mitigation projects and programmes.

1. "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;" (Bali action Plan, Decision 1/CP.13 (b) (ii))

1. CARBON OFFSETTING VERSUS NAMAS

As many developing countries prepare their NAMAs, questions emerge about the differences of this tool from reducing emissions via carbon offsetting mechanisms, such as the Clean Development Mechanism (CDM). Although the respective CDM and NAMA activities can look very similar, the concepts are quite different. While the CDM was established to enable a way for developed countries to meet their climate targets by investing in emission reduction projects in the developing world, NAMAs were born to provide a way for developing countries themselves to take part in addressing climate change challenges through emission reductions accounted for in the country where they take place. NAMAs do not only move away from the concept of shifting the geographical location of the emission reduction projects, they also move from a project to a more policy-based focus. In that sense NAMAs resemble the CDM's Programme of Activities (PoAs), which move beyond project based emission reductions and allow for emission reductions resulting from policies, measures or standards to generate offset credits. Another difference is that the CDM is guided by strict rules, while NAMAs fall short of universal rules. Although the two mitigation mechanisms share some common characteristics, they differ mainly in four key aspects:

a. Market versus non-market

CDM is a market based mechanism established under the Kyoto Protocol, utilized to limit or reduce GHG emissions and hence meet the protocol target.⁸ Through the CDM, developed countries implement specific projects in the developing world at a lower cost, and in exchange earn carbon credits, which can then be traded on carbon markets. This means that finance flows from developed to developing countries in exchange of emission reductions in developing countries that are sold as carbon credits.

Unlike the CDM, NAMAs have been designed as non-market measures. This means that they are not driven by demand and supply of offset credits but are country driven processes reflecting long-term national strategies emerging from national and local needs. In the current design, emission reductions achieved via NAMAs are accounted for by the host country.

Although there have been discussions to allow NAMAs to generate tradable carbon credits in the form of 'credited NAMAs', this option is still under debate among the Parties. The mechanisms for NAMA crediting remain undefined under the UNFCCC but are being considered by many developing countries in context of the Partnership for Market Readiness (PMR) exploring options for domestic emissions trading schemes building on CDM experience.

b. Scope of mitigation action

In terms of forms of mitigation actions and sector coverage, NAMAs offer more variety than the CDM. Generally, the CDM reduces GHG emissions through project activities. These projects need to be approved by the CDM Board. Also the CDM has embarked to expand the scope of activities beyond project level emission reductions only through its PoA.

The main difference between the CDM and NAMAs is that the main objective of NAMAs is to move beyond the project based mitigation to sectoral focus. NAMAs can be defined in any nationally appropriate way, i.e. they can be undertaken in the form of policies, programs or projects. For example, NAMAs can introduce a new set of standards (e.g. energy efficiency standard in housing), laws and regulations and financial incentives (e.g. energy tax). Given this country driven sustainable development focus of NAMAs, they can also cover a large variety of sectors, including those that are not qualified under CDM such as certain land use sector activities, or those that have not kicked off under the CDM, for example because they would require a higher carbon price to become viable, such as emission reductions in the transport sectors.

c. Climate mitigation versus development

Both, the CDM and NAMAs, define two main objectives - contribution to emission reductions and achieving sustainable development in a developing country. However, the primary goal of the CDM is to help developed countries fulfil their commitments to reduce emissions. To receive carbon credits under the CDM, projects need to demonstrate GHG emissions reductions according to globally defined rules and procedures. While CDM projects need to demonstrate sustainability benefits in principle, carbon credits are awarded on the basis of emission reductions only, with no particular emphasis on the contribution of sustainable development. In other words, the CDM follows a 'mitigation first' approach, where sustainable development is regarded as a co-benefit of mitigation actions.

NAMAs on the other hand are driven by national governments and reflect national or subnational needs for development. The term 'nationally appropriate' moves away from the focus on climate mitigation and rather puts the need for mitigation actions in the context of domestic development. This 'development first' approach aims to allow NAMAs to be driven by sustainable development as a key priority.⁹ Emission reductions are therefore generally considered a cobenefit to other national objectives, such as increased energy access and reduced traffic growth.

d. Who pays for what?

A key issue for both, CDM as well as NAMA activities is to attract sufficient financial sources. Due to the different purpose of the two mechanisms, the differences in financial flows are significant.

The purpose of the CDM is to identify low-cost mitigation potential in developing countries. The investment in the underlying CDM project activity typically comes from domestic sources in developing countries. The value of the carbon credit is typically a small part of the total investment.

NAMAs differ because they do not only target low-cost mitigation activities and because they need to leverage finance ex-ante. This can be done via various channels, for example via domestic or international financial support either from the public or from private sources.

2. NAMAS IN ALL SHAPES AND SIZES

a. Domestic versus Supported NAMAs

The UNFCCC distinguishes between two types of support to develop and implement NAMAs: domestic (unilateral) and supported (multilateral) NAMAs.

Domestic NAMAs: Domestic NAMAs rely solely on national support to implement mitigation actions. In general they receive financial support from already existing flows of financing within the developing country, for example through the developing countries' national budget.

Supported NAMAs: Supported NAMAs seek international support in the form of financing, technology transfer or capacity building. For example, numerous developing countries are including conditional climate mitigation targets in their intended nationally determined contributions (INDCs) by offering climate targets they can achieve with domestic finance only, and climate targets they can achieve with the availability of international support. However, even for NAMAs that receive international support, domestic public and private financial sources are essential because internationally pledged finance to date will not be sufficient to implement all mitigation activities in developing countries needed to limit global warming.

In some cases NAMAs can start off as domestic NAMAs, but can, overtime, start receiving international support; thus financing can be a mix of domestic, international and also public and private sources of finance.

b. Policy versus project NAMAs

NAMAs allow developing countries to undertake different mitigation actions to address national priorities and reduce GHG emissions. NAMAs are thus very diverse in nature and can be implemented in form of policies, sectoral programmes, or project based activities. However, given that NAMAs are intended to achieve 'transformational change' they are

designed more as activities to deliver long term outcomes at scale. Therefore, they are mostly utilized as policies rather than project activities. According to the NAMA Database by Ecofys, more than half (56%) of all NAMA activities are implemented as part of national policies and strategies, and about a fourth (25%) as projects.

Policy NAMAs: Policy NAMAs include development of regulations, policies and strategies. They aim to achieve transformational change by encouraging a shift in investment behaviour. They are utilized through standards or economic impetus. Policy NAMAs use strategies such as feed-in tariffs for renewable energy, policy packages which incentivize a market for a new technology, emissions trading schemes, energy efficiency standards in building etc.

Project NAMAs: NAMAs can also be project based, where specific investments are directed at mitigation actions, mostly undertaken to pursue cleaner energy, energy efficiency, more robust infrastructure and technology development. Examples of project NAMAs include concentrated solar power (CSL), wind and thermal power plants, transport infrastructure, promotion of low emission technologies in agriculture, etc.



Graph 1: NAMAs by type Source: Ecofys (2015)

3. NAMA DATABASES

There is currently no universal database in place that records all NAMA actions. However, the following three databases have been developed as important platforms to access information on the NAMA Registry.

a. NAMA Registry

The NAMA Registry was established by the UNFCCC following a decision¹⁰ by Parties in 2010 to record NAMAs seeking international support and match finance, technology and capacity-building support for submitted actions.

It is operational since 2013 and categorizes NAMAs in three groups: i) NAMA seeking support for preparation, ii) NAMA seeking support for implementation, and iii) NAMAs for recognition. The latter is devised for unilateral NAMAs, which are not seeking support.

Submission of planned NAMAs to the registry is voluntary and it requires information with no mandatory fields. The platform also provides an opportunity for developed countries to announce their available resources.

b. NAMA Pipeline Analysis and Database

The NAMA Pipeline Analysis and Database¹¹ is established by UNEP DTU (United Nations Environment Programme and Technical university of Denmark). In addition to submissions to the UNFCCC from developing countries and countries in transition for NAMAs, the pipeline also includes submissions from developed countries on offered finance.

The NAMA pipeline provides analysis according to different dimensions (sector, financial support, MRV indicators, SD indicators, etc). The information on different NAMAs is not uniform or completed, but it is being systematically updated.

c. NAMA Database

The NAMA Database by Ecofys collects information from publicly available sources and synthesizes information submitted to official channels on NAMA related activities, but not necessarily all/only activities submitted to the NAMA registry.

The database contains detailed information on NAMAs, such as financial status and potential impacts. It also includes information on NAMA highlights, status reports, feasibility studies, etc.

The NAMA database is also launched as a wiki site where users can contribute their information. There is a specific section, the Transport NAMA Database, where more details can be found about NAMAs in the transport sector.

d. Transport NAMA Database

Transport NAMA Database is a wiki portal with specific focus on NAMAs in all stages of development in the transport sector. The database encloses specific information on NAMAs, including NAMA impact, MRV and financing. The aim of the platform is also to provide sector specific data, draw together different stakeholders involved in transport NAMAs, identify capacity needs and share knowledge and best practices.

4. FINANCING NAMAS

Mobilizing climate finance for implementing NAMAs and other mitigation instruments is one of the crucial challenges. There are numerous climate finance instruments, for example the Green Climate Fund, Foreign Direct Investment (FDI) and other bilateral and multilateral instruments. However, there are challenges to access these finance instruments and there are particular challenges to incentivize the private sector to invest in NAMAs.

Large parts of investments for NAMAs must come from domestic public sources. However, public finance is not enough and it is often used to attract the private investments needed. It is generally argued, that NAMAs need to be 'bankable' to draw investments. This means that they need to generate revenues with a sufficient level of certainty to leverage private sources.

Financing NAMAs is mainly distinguished according to whether NAMAs are domestic or supported. While domestic NAMAs are financed only from national public and private sources, supported NAMAs aim to attract foreign funding.

Leveraging of climate finance in the process of supported NAMA follows a certain sequence. Principally, public finance should come first, in order to motivate private finance. Primary funding is established at domestic public level to further attract international public sources, private domestic sources and eventually foreign private investments (See Figure 1).



a. Public finance

In order for NAMAs to leverage climate finance, they must firstly provide a concrete proposal for mitigation action. In general, the leading financial investor in NAMA development is a national public institution. This is because the domestic public sector is the principal initiator of NAMA development, and because national public funding already supports most low-emission activities in the country. The resources are typically allocated from rearranging the national budget of the developing country. The finance comes therefore largely from taxes, but also from other sources such as adjusting fossil fuel subsidies, or revenues from carbon markets. Domestic public finance can come in the form of grants, concessional finance, etc. ¹² Providing at least initial domestic investment is a footing to motivate international sources of finance for multilateral NAMAs.

Respectively, the national public sector firstly turns to international public donors with their policy ideas. Resources of international funding range widely between multilateral, bilateral, development banks and supra-national bilateral funding agencies. Examples of institutions involved in NAMA financing include the World Bank, the Global Environment Facility (GEF), the German Agency for International Cooperation (GIZ), the NAMA Facility, Germany's International Climate Initiative (ICI), the Nordic Development Fund, the Clean Technology Fund and the Inter-American Development Bank (IDB). International investments are beneficial for covering risks and helping overcome technical, regulatory and financial barriers. Every public funding institution has different priorities and different forms of assistance (e.g. grants, loans). Generally, they provide short term financing, such as grants, which may cover only the preparation phase of NAMAs.¹³

b.The NAMA Facility

The NAMA Facility was established as a joint initiative of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and the UK's Department of Energy and Climate Change (DECC) in 2012. In 2015, two new donors – the Danish Ministry of Climate, Energy and Building (MCEB), and the European Commission – joined in.

The NAMA Facility is the first initiative to provide earmarked support for NAMAs which are ready for implementation through both, technical and financial support. It aims to provide for ambitious and innovative NAMAs based on competitive selection process and at the same time encourage additional investments from the public and private sector. The NAMA Facility targets private-sector investments by encouraging using the grants provided to set up mechanisms to mobilize private investment (e.g. concessional loans, guarantee funds). ¹⁴

So far, the NAMA Facility has supported 9 projects through two calls for projects proposals. Through these, BMUB and DECC have jointly contributed \leq 120 million, making the NAMA Facility a key institution in NAMA implementation. In April 2015, the NAMA Facility launched its third call for NAMA Support Project Outlines, which was the biggest one yet. Thanks to the two new donors – MCEB and the European Commission – who provided \leq 12 and \leq 15 million respectively, the facility will together provide funding of up to \leq 85 million.¹⁵

The NAMA Facility does not allow directly transferring the funds to the implementing institution. Therefore, submitters of NAMA support projects will have to specify a delivery organization (e.g. GIZ and German Development Bank - KfW), which act as trustees.

c.The Green Climate Fund (GCF)

Established in 2010, the GCF operates within the framework of the UNFCCC. Like the NAMA Facility, the GCF aims to promote the paradigm shift towards low-emission and climate-resilient development pathways. It was established to leverage private and public finance in order to support mitigation and adaptation practices in developing countries through projects, programmes, policies and other activities. Although still in the process of becoming fully operational, the GCF is expected to become the main source of climate finance by leveraging US\$100 billion annually from 2020. In May 2015, the GCF reached 'effectiveness' by signing over 50% of contributions pledged in the November High level Pledging Conference in Berlin. The total of signed contribution amounts to \$5.47 billion equivalent. This means that the GCF can start allocating its resources for projects and programmes in developing countries.

The first seven implementing entities were accredited in March 2015:

- Centre de Suivi Ecologique (CSE) from Senegal,
- Peruvian Trust Fund for National Parks and Protected Areas (PROFONANPE),
- Secretariat of the Pacific Regional Environment Programme (SPREP), an intergovernmental organization, based in Samoa,
- Acumen Fund, Inc., an impact investment fund operating primarily in Africa and the Asia– Pacific region,
- Asian Development Bank (ADB), multilateral development bank based in the Philippines,
- German Development Bank (KfW),
- United Nations Development Programme (UNDP)

The entities will submit a first set of project and programme proposals, expected to be funded by October 2015. So far, no implementing entity has been accredited to allow civil society organisations to directly access the GCF's funds. However, this may change in the future when additional entities are expected to apply for accreditation.

d. Private finance

Engagement of private sector is critical for implementation of NAMAs. While public sources are a way to engage the private sector, attracting private investments remains challenging. The incentive of a domestic private sector to support mitigation activities lies in economic benefits such as savings they are able to make through their investments. It is also a way to support the national economy and get experience in funding projects with international partners. In general the private sector will engage in stable and predictable NAMAs with appealing return ratios and risk rates. Mainly they support NAMAs related to renewable energy and energy efficiency due to subsidies in those sectors, which help reduce risks for investors. NAMAs in transport may also be attractive because they are supported by governments and development cooperation agencies and carry less risk.

Domestic private-sector agents, such as private businesses and banks, provide finance as lenders or equity investors and in many cases engage in project operations.¹² To attract Foreign Direct Investments (FDI), the developer must make NAMAs bankable, by providing attractive return and risk ratios. Respectively, many developing countries face barriers, such as high-risk premiums and lower return on investments.¹³

CURRENT STATE OF NAMA FINANCING

NAMA developers have faced difficult years accessing climate finance. Largely, this is due to limited sources of support. Within the NAMA Database, 96 out of 151 NAMAs are listed as seeking financing. However, the information provided is incomplete. On the other hand the NAMA Pipeline by the UNEP DTU contains 88 NAMAs. 81 of these are listed as looking for external support for preparation or implementation.

According to the NAMA Pipeline, until June 2015, \$6.4 billion of support was requested for NAMAs, and only \$74 million offered. Most of this - \$64 million - came from the NAMA Facility. The remaining \$10 million of the funding for NAMAs came from the Global Environment Facility (GEF), Japan, Austria and Inter-American Development Bank.

Secondly, the GCF, which is on the verge of operationalization is to disburse half of its funding to mitigation actions. To date, 33 governments made a pledge to the GCF. Along with the \$9,3 billion pledged at GCF's High-Level Pledging Conference in Berlin in November, and additional resources mobilised by the end of last year, in total \$10.2 billion was brought in. The total amount of contribution signed to date is \$5.47 billion equivalent. As it attempts to allocate 50% of its sources to mitigation actions, it is to be one of the main funders that NAMA developers will engage with.



5. THE MOVERS AND SHAKERS OF NAMAS

NAMA development and implementation are comprehensive processes which call for an all-inclusive stakeholder engagement beyond the responsible governments. Ideally, all major stakeholders should be involved as early as possible in the process to ensure all interests are incorporated in designing a NAMA. Still, different stakeholders will take different part in the various stages of the NAMA process. Favorable outcomes of NAMA projects, policies and strategies will depend heavily upon good collaboration and coordination between different groups; different ministries, national and sub-national actors, private and public sector, civil society, etc. Ultimately this will be the in the hands of a coordinating entity, a role generally held by a national ministry.

The range of stakeholders is sizable within a single NAMA process. However, they can be distinguished between the following:

- NAMA developers and designer
- NAMA approver
- NAMA implementer
- NAMA verifier
- NAMA financer

a. NAMA developers or designers

Developing ideas and proposals for NAMAs starts at the governmental level. Typically, the main role will be taken by one or more national ministries responsible for regulation of the proposed policies or measures (e.g. Ministry of the Environment, Ministry of Economic Affairs, Ministry of Finance, Ministry for Infrastructure, Ministry of Transport, etc.), along with government agencies (e.g. National Agency for Energy Conservation), departments (e.g. Department of Agriculture) and consultants. In addition, governmental institutions will need to engage with other actors, such as the private sector, non-governmental organizations (NGOs) and academic institutions in order to design a successful NAMA proposal.

b. NAMA approver

The NAMA approver is the entity responsible for approving all NAMAs for their country before they are submitted to the NAMA Registry. This is usually a department in a public national institution that has to follow a national approval process of the respective national authority, depending on the type of action envisioned. For example, a NAMA in the waste sector will have to be approved by the relevant ministry and often also the national finance ministry. A policy NAMA, which aims to bring new legislation or regulation will also likely have to be approved firstly by the national parliament.

c. NAMA implementers

Implementation of NAMAs includes a wider range of stakeholders. Ultimately, the official implementing entities of most NAMAs will be the responsible ministry within the developing country. However, they can be considered as coordinating entities, which collaborate with other stakeholders in the implementation process and oversee the process. Ministries therefore work with different public/private entities and also civil society organizations in implementing NAMAs on the ground.

For some of the NAMAs looking for support, the following national public entities were listed as implementers: City of Valjevo in Serbia, National Housing Commission (CONAVI) in Mexico, National Council for Climate Change and Clean Development Mechanism in Dominican Republic and the Coffee Institute (ICAFE), a non-governmental public institution in Costa Rica.

Frequently, NGOs are listed as entities implementing the project on the ground. In the case of Costa Rica, a NAMA in the coffee sector is implemented by Fundecooperacion, a non-governmental non-profit organization created to support projects on sustainable development. In Georgia, a gender sensitive NAMA is being prepared by an NGO coalition consisting of Women in Europe for a Common Future (WECF), Greens Movement, Rural Communities Development Agency (RCDA), Georgian Ecological Agricultural Association (SEMA), and Social Development Center Akhaltsikhe (SDCA). They work together with the Georgian Ministry of Environment. A pilot program of NAMA on Low Emissions Schools in Mexico is implemented by non-governmental organisations at the local level that regularly work with the schools. Together with students, parents and school staff, they are responsible for implementing the annual emission reduction action plan. The NAMA aims to incorporate wider educational community.

NAMAs can also be implemented by private and public companies (e.g. Public Utility Company District Heating Plants of Belgrade and Business Association "Heating Serbia"), UNDP, and other entities that bring different stakeholders together.

NAMAs financed through the NAMA Facility need to have a qualified delivery organization, which act as trustees. These are in all but one case the GIZ and KfW development bank. This is because the NAMA Facility does not allow directly transferring the funds to the implementing institution. Delivery organization will have a contractual arrangement with the partner government and the national implementing agency and will be responsible for the proper delivery of funds or services, the financial and administrative management of the NAMA, and monitoring and reporting back to the donor.

d. Verifiers

Although this is not always required, there is a role for verifiers, especially for supported NAMAs to verify achieved emission reductions as well as other impacts and co-benefits according to the level of assurance required. Verifier can check the reported data and produce a verification statement. This role can be inhibited by a national entity or a third party verifier, such as a private company.¹⁶

e. Financers

Sources of NAMA financing consist of a combination of private and public sector funds, bilateral and multi-lateral development institutions, international development agencies which support NAMAs through different forms (e.g. grants, loans, equity investments, etc.). Donors play an important part in the NAMA process, not only by getting NAMAs going, but also by setting different requirements and criteria for NAMAs to receive support (e.g. mitigation ambition, sustainable development benefits, MRV, etc.). More information on financing is discussed in section 4.



6. OVERVIEW OF EXISTING NAMAS

NAMAs are implemented across a number of Non-Annex I Parties to the UNFCCC.¹⁷ Information on existing NAMAs varies widely among different databases. This is due to the different sources of data taken into account by institutions to conduct their analysis. The NAMA Registry documents NAMAs submitted to look for recognition and support, and to date includes 97 NAMAs. The NAMA Database, which considers a wider set of data, records 151 NAMAs in 37 countries, and the NAMA Pipeline documented 88 NAMAs. All databases indicate that the NAMA development has increased significantly in the past years. Since December 2014, there was an increase of 30%.

Up to May 2015, the NAMA Database recorded only 11 out of 151 NAMAs being implemented: 5 in Latin America, 4 in Asia and 2 in Africa. The remaining 140 NAMAs are still at the development stage. This is largely due to scarce resources, capacity and technology available to shift from the development to the implementation phase.

The NAMA Database also recorded 29 feasibility studies, which provide information on potential NAMAs and explore the potential of policies, projects and programmes that could be implemented under the framework, but do not yet hold official government support.

Documented NAMAs range in type of action they pursue, the sectors they cover, their financing status and the type of information they provide.¹⁸

Overview of prevailing sectors

NAMAs include sectoral and cross-sectoral policy initiatives. In comparison to the CDM, NAMAs are much more flexible than the CDM and encompass a wider variety of sectors such as, energy, transport, building, waste, industry, agriculture, and forestry.

i. NAMAs in the energy sector

Both, the NAMA Pipeline and the NAMA Database record energy sector as the most dominant. According to the latter, it accounts for more than one third (39%) of all NAMA development. This includes a range of policies and projects largely supporting renewable energy technology (e.g. wind, solar, thermal power, geothermal power, hydro and biomass) through portfolio standards ,feed-in tariffs and energy efficiency (e.g. improving cooking stoves in Gambia). NAMAs focusing on energy supply are a good way to reduce GHG emissions and contribute to national development strategies, by expanding the use of renewable energy. Due to the growing energy demand in developing countries, 55 NAMAs are in development, and 4 in implementation stage; renewables initiative in South Africa, expansion of self-supply renewable energy systems in Chile, improvement in the efficiency and sustainability of wood energy value chains in Burkina Faso, and transformation of production and use of Refrigeration and Air Conditioning appliances in Thailand.

17. For a list of Non-Ann ex I Parties see here: http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php

REGIONAL OVERVIEW OF EXISTING NAMAS

The coverage of NAMAs within Non-Annex I countries remains disproportional worldwide. According to the NAMA Database, most NAMAs (40%) are being developed in Latin America, with Mexico accounting for 21 of the 60 in the region. This is followed by Africa (26%) and Asia (25%) which each account for a quarter of all NAMAs. Only about one tenth (9%) of NAMAs are located in Europe, developed in Serbia and Armenia. Out of 7 NAMAs currently in the implementation phase, 4 are carried out in Latin America, 2 in Asia and 1 in Africa.



ii. NAMAs in the transport sector

Asia

Africa

Around 15% of NAMAs are being developed in the transport sector. These include a collection of potential activities, such as fuel efficiency standards, improvement of public transport, enhancement of non-motorised transport, or parking management. According to the NAMA Database they are mostly found in Latin America as a part of national policies and strategies. In total, there are 21 transport NAMAs in development and 3 at implementation stage as transit-oriented urban development in Colombia, transport NAMA in Peru and sustainable urban transport in Indonesia. The transport NAMA Database indicates three more being implemented in Uganda, South Africa and Mexico.

iii. NAMAs in the building sector

Given the substantial mitigation potential of the building sector, 12% of NAMAs according to NAMA Database focus on energy savings and mitigating GHG emissions in buildings. Mitigation actions can include installing renewable technologies, adequate metering systems, adoption of building standards and codes, certification systems, labelling programs and market incentives. Only one NAMA is currently at implementation stage, taking place in Mexico as a NAMA for energy-efficient housing.

vi. NAMAs in the waste sector

is another sector, which represents a great potential for national mitigation actions. It accounts for 8-12% of all NAMAs, according to NAMA Pipeline and NAMA Database. Waste NAMAs are utilized in all regions and mostly aim at improving recycling rates, enhancing composting programs and deploying waste management system for energy generation.

In addition to the sectors listed above, NAMAs are also being developed in the industry, agriculture and forestry sectors. A number of NAMAs cover more than just one sector and at the same time address for example mitigation in buildings and energy supply or agriculture and waste. Forestry accounts for the lowest share of all NAMAs currently in the pipeline.



7. HOW TO DEVELOP A NAMA

There are no universally agreed rules and procedures on how to develop and implement NAMAs. Recognizing this, the UNFCCC along with UNDP and UNEP DTU Partnership (formerly the UNEP Risø Centre) launched a set of guidelines for NAMAs dividing the NAMA development process into three phases: (a) concept phase; (b) development phase; (c) and implementation phase.¹⁹

It is important to note that NAMAs are usually part of a long-term process that does not naturally start from zero but can be based on existing policies and strategies, such as Low-Emission Development Strategies (LEDS). Some NAMAs firstly undergo a pilot phase, to learn from the process and develop best practices. Some focus on testing MRV systems on emission reductions and co-benefits. Overall, the process of developing and implementing NAMAs requires broad consultations across different government bodies, various public and private stakeholders and civil society in order to identify and ultimately successfully implement NAMAs.²⁰

a. Concept phase

The concept phase is the foundation for every NAMA activity. In this phase, also referred to as the conceptual or drafting phase, NAMA developers must determine the scope, objective and mitigation actions of their NAMA. In order to accomplish that, they must firstly identify and then prioritize the areas where emission reductions are most wanted and attainable. These two processes must be country driven and take into account national development priorities.

Generally, this is the phase when stakeholders would be most engaged, in order to bring up their interests and issues in preparing a NAMA. Stakeholder involvement should in particular include local institutions, to provide rationale to the NAMA development. Ensuring wide engagement will also contribute to publically endorsing the NAMA. Identification can be based on the data from official country documents, such as national climate change or development strategies, LEDS, previous CDM projects or PoAs, national communications to the UNFCCC and scientific studies. Analysis of these documents is useful to determine existing and planned national policies.

Key NAMA elements

Amongst a potential set of appropriate mitigation actions, the ones most pertinently addressing a country's sustainable development priorities are usually chosen. This is done through a screening or prioritization process. This stage requires defining a range of NAMA elements, such as defining policy measures and actions to pursue mitigation objectives, baseline setting, defining estimated emission reductions, identifying stakeholders, defining potential benefits and co-benefits, laying out an MRV system, defining the timeline, cost estimates and sources of funding.²¹

Setting the baseline: Setting the baseline or the so called 'business as usual' scenario is defining the emissions that would have occurred in the absence of the NAMA action. This includes estimating the total amount of current emissions along with the emissions assumed to occur in a certain period. Baseline setting is key for defining emission reductions.

Defining estimated emission reductions: The estimated emission reductions are the amount of reduced CO₂ that occur as a result of the NAMA action. They are measured quantitatively against the baseline emissions, meaning the business as usual scenario.

Identifying stakeholders: Stakeholder engagement plays a crucial role throughout the whole cycle of NAMA development. Therefore, stakeholder identification is an important process to recognizing all actors that might be affected by the NAMA activity.

Defining co-benefits: In addition to emission reductions, NAMAs also aim at generating co-benefits. In fact, the co-benefits are regarded as the drivers of NAMA actions. They include sustainable development effects, such as economic benefits (e.g. increase in number of employed persons), environmental benefits (e.g. cleaner water), and social benefits (e.g. improved living conditions).

Developing a MRV system: MRV stands for 'Measuring, Reporting and Verification'. Developing a suitable MRV system is a crucial element, which allows for transparency of the results of the NAMA activity. MRV systems differ between domestic and supported NAMAs. In general, a robust MRV system is a key requirement to receive international support for NAMAs.

Defining the NAMA process and timeline: The concept phase should include outlining the time frame of NAMA development and implementation and the process from the initial idea to the specific activities.²²

The process of identification and prioritization can either be a top-down or a bottom up process. In a top-down process, the government designates one central entity to make the identification and prioritization of the NAMA. In a bottom-up process, different stakeholders such as ministries, local governments and civil society are invited to identify options for NAMAs. Either way, there is a coordinating entity that oversees the process of prioritization. Based on the concept phase, the government can introduce capacity building initiatives to facilitate the process. In some cases pilot phases are launched before further NAMA development.¹⁶

The output of the concept phase is a concept note, which would generally be produced after initial assessment of the technical and political context. A concept note includes a summary of the overall NAMA idea, along with the aforementioned information. There are several templates available by different NAMA stakeholders to draft a concept note, e.g. by the UNFCCC, Ecofys and GIZ. The concept note is a first idea to share with the donors and can be fleshed out into a NAMA proposal to be shared on the NAMA Registry webpage.²³

The NAMA proposal allows countries to request support for the development or implementation of their NAMA. It is basically a way to show why a specific activity is deserving international support. The proposal should thus entail detailed information on the NAMA activity, the implementation and MRV system. The NAMA Registry provides guidance and remains the main platform to submit proposals in order to look for support and increase visibility.

b. Development phase

The development phase is a process which translates the concept phase into practice. This phase establishes the institutional and legal frameworks of the NAMA and requires endorsement from the government. It therefore includes refining and amplifying certain details outlined in the concept phase in line with the political, economic, and social context of the host country. This entails defining the potential of emission reductions, projecting business as usual emission levels, formalising an MRV mechanism, and defining responsibilities of different stakeholders. The development phase requires further engagement with all stakeholders, particularly consultations with donors.

In the process of developing a NAMA, It is essential to identify and analyse any potential barriers to the process. Within every NAMA idea there are gaps, such as economic and financial barriers (e.g. impact on local manufacturers or distributors), information barriers (e.g. lack of knowledge or technical expertise), regulatory and institutional barriers (e.g. lack of policies, standards), market barriers (e.g. unavailability of needed technology) and cultural barriers. Analysis of existing barriers is important to identify where support is required and what are the possible solutions in order to more easily move forward to the implementation phase.¹⁹

c. Implementation phase

The implementation kicks off of a NAMA activity in line with the NAMA proposal work plan. The actual precondition for an implementation phase is that the NAMA has received some support to undertake the actions stated in the proposal.

The implementation phase can be adjusted according to the specific requirements made by the donor, and also according to input from stakeholders. Stakeholder engagement is important throughout the whole process and all relevant actors

should ideally be kept informed in implementation stage. Approaching policy implementation can entice more dynamics in stakeholder interests. Relevant stakeholders, including the government, might want to adjust the NAMA from the original concept. This phase thus often requires revising of the NAMA concept and thus faces a lot of coordination challenges.

To implement NAMAs, a legal/regulatory framework is needed to make the policies functional. Providing and implementing a legal framework for utilization of NAMA activity is a time consuming process. In addition, the implementation phase often requires capacity building, such as training of personnel for an easier implementation process. Once the NAMA is operationalized, it needs to be observed and evaluated. Thus application of a designated MRV system is required. ^{xix}



8. MONITORING, REPORTING AND VERIFICATION FOR NAMAS

NAMAs were devised as mitigation actions utilized in "a measurable, reportable and verifiable (MRV) manner", indicating that the implemented actions must be subjected to a MRV system. In general, MRV is a way to demonstrate that that proper actions have been taken and promised results delivered. It is also a manner in which the confidence on a country's progress in fighting climate change is built.

The role of MRV is not to impede the NAMA process but rather facilitate actions of reducing GHG emissions. It is a way to provide feedback to both, policy makers and donors on the successfulness of adopted mitigation actions. MRV system ensures that the obligations of reporting to the UNFCCC are respected. Furthermore, it is also a way to learn from the NAMA experience and its impacts through transparent information sharing.

It needs to be understood that with NAMAs, MRV is not a "one size fits all" solution. In comparison to the CDM, NAMA MRV system can be simpler and more flexible. While the CDM provides strict rules on MRV requirements, NAMA MRV conditions can stray from a single approach, and will be determined according to the nature of mitigation action, their purpose and requirements set by NAMA supporters. MRV system can be based on already preexisting experiences and national systems or they could be newly developed.¹⁶

Firstly, the MRV will diverge between NAMAs that have been implemented with domestic support and those receiving financial, technical and capacity support from an international third party. Secondly, two different sets of impacts can be distinguished: 1) the amount of global emission reductions and 2) the level of sustainable development benefits.

a. Measuring GHG emissions

Developing countries have in case of both, domestic and supported NAMAs, reporting commitments to the UNFCCC. It was decided at COP17 in Durban, that in order to enhance reporting on mitigation actions and their effects, developing countries should in line with their capabilities and capacity, submit their relevant data through Biennial Update Reports (BURs) every two years. The UNFCCC determines²⁴ that the information should inter alia include national inventory of anthropogenic emissions and information on mitigation actions and their effects.

Developing countries are to provide a set of data for each mitigation action, such as:

- Name and description of the mitigation action, information on the nature of the action, coverage (i.e. sectors and gases), quantitative goals and progress indicators;
- Information on methodologies and assumptions;
- Objectives of the action and steps taken or envisaged to achieve that action;
- Information on the progress of implementation of the mitigation actions and the underlying steps taken or envisaged, and the results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emissions reductions, to the extent possible;
- Information on international market mechanisms.

Developing countries must also provide information on the description of domestic MRV arrangements. Both, supported and domestic NAMAs that report their actions through the BUR, will be then subjected to the analysis of the International Consultation and Analysis (ICA) consisting of a team of national experts. This is the verification step, which aims to check consistency of information and clarity in reporting GHG emissions and mitigation impacts, rather than making judgements on overall measures taken. The ICA process is not a system of compliance, and does not enforce consequences upon review.

Domestic NAMAs

In the case of domestic NAMAs, the Copenhagen Accord provided that domestic NAMAs are subject to a domestic MRV system. The latter is to be based on guidelines on domestic MRV25 adopted during COP19, which propose that the MRV should be voluntary, consider national circumstances and national priorities. That means that MRV will in principle be based on national systems and national expertise. Besides BURs, domestic NAMAs should provide periodic communication through National Communications every four years, where Parties report on their actions to implement the Convention.

In March 2015, The UNFCCC Secretariat has released a handbook on the international climate change MRV framework, which includes guidance for developing countries setting up domestic MRV for domestic NAMAs. The guidelines encourage developing countries to employ existing processes on a voluntary basis.²⁶ Domestic NAMAs also generally have the incentive to report their NAMA through BURs, to demonstrate their efforts.

Supported NAMAs

The system of MRV for internationally supported NAMAs is more stringent compared to domestic ones. The Cancun Agreements provide that "internationally supported mitigation actions will be measured, reported and verified domestically and will be subject to international measurement, reporting and verification in accordance with guidelines to be developed under the Convention". Still, there are no universal guidelines for MRV for supported NAMAs. The criteria for MRV will generally be agreed between the developing country and the entity, which is providing financial, technical and capacity support for the NAMA (e.g. donors, investors, partners). NAMA Facility for example determines monitoring and evaluation (M&E) requirements with a set of indicators. The performance of overall programmes is monitored by the Technical Support Unit (TSU).

NAMAs seeking support are also encouraged to submit their proposals to UNFCCC NAMA Registry. The Registry establishes a set of expected information for all submissions, which is based on information included the section on 'Mitigation action' (Annex III, par. IV.) in BURs. However, the Registry does not act as an MRV engine. The MRV system will ultimately be established bilaterally between the supporter and the country in which the NAMA is implemented.

One of the challenges in supported NAMAs is providing a healthy balance between the rigidity of MRV system imposed by international donor and the country ownership over mitigation action. While, applying donor's system, MRV has to also take into account national circumstances and development priorities and thus include relevant indicators and metrics suited for a specific NAMA.

It is also important for MRV to provide transparency by setting the boundaries of a given measure and its result, in order to set apart the effects of overlapping NAMAs and to avoid double counting.²⁷ This might happen to a number of NAMAs within a country, which may be both, domestic and supported, and intersecting on different levels.

b. Measuring sustainable development

Given NAMA's development first approach, the process should also entail MRV on sustainable development benefits. However, while sustainable development is to be a key driver of NAMA, there is no universal understanding on the concept of sustainable development or sustainable development impacts.

The UNDP developed a voluntary tool to report and monitor sustainable development benefits over its full life cycle on the basis of a set of 23 indicators in September 2014. The NAMA developers must decide on their own which of the indicators are most relevant to the project and develop their own methodology of assessment.²⁸

The system of supervising sustainable development benefits can be developed between the donor and the host country. For example, in the case of the NAMA Facility, the Technical Support Unit (TSU) monitors how the overall programme performs. Monitoring includes mandatory indicators, such as the number of people directly benefitting from NAMA actions, as well as sector and project specific indicators.

NAMAs seeking support through the NAMA Registry are invited to provide information on co-benefits for local sustainable development and other indicators of implementation. In these sections some developing countries share information on social and environmental safeguards, MRV system in relation to both mitigation and co-benefits, facilitated economic, social, and environmental co-benefits, and transformational aspects of their NAMA.

The lessons from the CDM showcase that in the absence of international guidance on MRV on sustainable development, mitigation actions can generate adverse environmental and social impacts. There are thus initiatives in place to improve quantitative and qualitative measurement of the sustainable development outcomes of NAMAs.

Such initiative was undertaken by the NAMA Partnership Working Group on Sustainable Development (WG - SD) in partnership with the International Institute for Sustainable Development and the UNEP DTU Partnership. Their aim is to provide insight on expectations and needs of various stakeholders in measuring sustainable development considerations in NAMAs.²⁹ As a result of findings, a Sustainable Development Framework was developed, which will evolve into a full NAMA Sustainable Development assessment tool. The framework contains 11 elements for users to consider (e.g. SD criteria and indicators, transformational change, stakeholder participation, no harm safeguards, etc.) which can be subjected to assessment.³⁰



9. ROLE OF CIVIL SOCIETY IN NAMA DESIGN AND IMPLEMENTATION

Embedding civil society in NAMA development and implementation ensures sustainable development and the identification of economic opportunities invisible from a top-down perspective. In many sectors, e.g. waste and agriculture, transformational impacts are strongly dependent on local knowledge. Meaningful NAMA development needs to engage with CSOs, profiting from but also building local capacities.

Experience in some cases shows that engaging civil society in all stages of the NAMA process – from the concept to development and implementation phase – is a key success factor of a NAMA. Civil society is an essential component of local and national interests, and their involvement is vital to keep government actions in line with local needs and expectations.

Their involvement can be particularly beneficial in the concept phase when the NAMA idea is being formed. For the most part relevant ministerial department should identify an entity to lead design and formulation of NAMA. This can also be done by non-governmental entities, such as civil-society organizations. 31 In general, the early stage of NAMA development will benefit from civil society engagement, which is able to provide valuable input and understanding of the development needs on the ground. They can therefore be very helpful in identifying the areas where development and emission reductions are most wanted and attainable and pinpointing the priority action areas, for example via multi-stakeholder roundtables and workshops. Furthermore, their input can be valuable in classifying the envisaged co-benefits as an outcome of NAMA. For example, Chile involves a number of civil society organizations (Ciudad Viva, Nación Pedal and Arriba'e la Chancha y MacletaFurthermore) from early stages of the process which have the opportunity to influence the design process of their transport, forestry and energy NAMAs.³¹

A wider and structured consultation process between all relevant stakeholders also takes place in the development stage, and can include relevant civil-society organizations. At this stage civil society engagement can be especially valuable in identifying barriers to implementation, but there are not many known examples.

Furthermore, members of civil society can play a key role in the NAMA implementation process. In fact a number of NAMAs foresee a strong role of civil society in all stages of the NAMA development. One such example is a gender sensitive NAMA in Georgia, which foresees engagement of local communities with a coalition of NGOs in order to develop a NAMA for sustainable energy. In this case, civil society is strongly involved in all aspects of NAMA development. Through a pilot phase, NGOs have built the capacity of local communities, and trained men and women as instructors, constructors and promoters of the benefits of renewable technologies.

Civil society does not only have the capacity to identify the options for sustainable development and emission reduction, but also to report on results of set activities. They can be a valuable source of information and provide feedback to the data from the MRV process, to appraise the anticipated impacts against real ones. In this way civil society involvement can be valuable in the process of ensuring accountability of NAMA actions. For example, in gender sensitive NAMA in Georgia, women have been trained and are mostly involved in monitoring and maintenance of sustainable development benefits.

There are several opportunities in the NAMA process for civil society to take part and a number of NAMAs in development showcasing a strong involvement of civil society in the process. Nevertheless, the lack of data leaves an ambiguous picture on overall public participation and consultative methods. This is only amplified by the lack of awareness and knowledge on NAMAs among the civil society in developing countries that could allow a meaningful public participation in the process.

10. USEFUL LINKS

- NAMA Partnership: <u>http://www.namapartnership.org</u>
- NAMA Wiki: <u>https://namapartnership.wikispaces.com</u>
- International Partnership on Mitigation and MRV: <u>http://mitigationpartnership.net</u>
- LEDS global partnership: <u>http://en.openei.org/wiki/LEDSGP/home</u>
- The NAMA Registry: <u>http://www4.unfccc.int/sites/nama/SitePages/Home.aspx</u>
- NAMA Pipeline Analysis and Database: <u>http://namapipeline.org</u>
- NAMA Database: <u>www.nama-database.org</u>
- Transport NAMA Database: <u>http://www.transport-namadatabase.org/index.php/Main_Page</u>

- 1. "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;" (Bali action Plan, Decision 1/CP.13 (b) (ii))
- 2. Report of the Conference of the Partieson its fifteenth session, held in Copenhagen from 7 to 19 December, FCCC/CP/2009/11/Add.1, 2009 http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf
- 3. Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1, http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf
- 4. Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011, FCCC/CP/2011/9/ Add.1, http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf
- 5. Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012, FCCC/CP/2012/8/Add.1, http://unfccc.int/resource/docs/2012/cop18/eng/08ao1.pdf
- 6. Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, FCCC/CP/2013/10/Add.1, http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf
- 7. Report of the Conference of the Parties on its twentieth session, held in Lima from 1 to 14 December 2014, FCCC/CP/2014/10/Add.1, http://unfccc.int/resource/docs/2014/cop20/eng/10a01.pdf
- 8. UNFCCC, The Mechanisms under the Kyoto Protocol: Emissions Trading, the Clean Development Mechanism and Joint Implementation http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php
- 9. Holm Olsen, K. (2013) Sustainable Development Impact of NAMAs. UNEP Risø Centre.
- 10. Decision 1/CP.16 (para. 53), followed by decision 2/CP.17, (para. 45).
- 11. From now forward NAMA Pipeline
- 12. Khachatryan, A. (2014) Financing Nationally Appropriate Mitigation Actions (NAMAs): Leveraging private investment, IISD.
- 13. Lutken, S.E. (2014) Financing nationally appropriate mitigation actions. UNEP DTU Partnership, Copenhagen.
- 14. NAMA Facility General Information Document, April 07, 2014.
- 15. NAMA Facility, http://www.nama-facility.org/start.html
- 16. UNEP DTU (2014) NAMA e-learning, https://prezi.com/xyqywhnue1a2/nama-e-learning-introduction/
- 17. wECN & Ecofys (2015) Status Report on Nationally Appropriate Mitigation Actions (NAMAs) Mid-year update 2015.
- 18. Lütken et al. (2013) Guidance for NAMA design building on country experiences. UNDP, UNFCCC, UNEP Risø.
- 19. Sharma, S. (2011) NAMA Process Cycle and Stakeholder Participation. UNEP Risoe Centre.
- 20. Irena (2012) IRENA Handbook on Renewable Energy Nationally Appropriate Mitigation Actions (NAMAs) for Policy Makers and Project Developers. IRENA, 2012.
- 21. UNEP DTU (2013) Guidebook for the Development of a Nationally Appropriate Mitigation Action on Efficient Lighting.
- 22. Sharma, S. (2011) NAMA Process Cycle and Stakeholder Participation. UNEP Risoe Centre.
- 23. Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Conventionto be presented to the Conference of the Parties for adoption at its seventeenth session. Annex III: UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention, http://unfccc.int/resource/docs/2011/awglca14/eng/lo4.pdf
- 24. General guidelines for domestic measurement, reporting and verification of domestically supported nationally appropriate mitigation actions by developing country Parties, Warsaw, 11–16 November 2013.
- 25. UNFCCC (2014) Handbook on measurement, reporting and verification for developing country parties.
- 26. Lütken, S et al (2012) Measuring Reporting Verifying. A Primer on MRV for Nationally Appropriate Mitigation Actions. UNEP Risø Centre, Denmark.
- 27. UNDP (2014) NAMA sustainable development evaluation tool.
- 28. NAMA Partnership. Working Group on Sustainable Development (WG SD), http://www.namapartnership.org/WORKING-GROUPS/Working-Group-on-Sustainable-Development--WG---SD-
- 29. Measuring sustainable development in NAMAs, http://www.iisd.org/pdf/2014/measuring-sustainable-development-namas.pdf
- 30. Sharma, S. & Desgain, D. (2014) Nationally Appropriate Mitigation Action: Understanding NAMA cycle. UNEP DTU.

OVERVIEW OF NAMAS IN IMPLEMENTATION PHASE

Country	NAMA Title	Sector	Start of (expected) implementation:
Burkina Faso	Burkina Faso Biomass Energy NAMA Support	Energy	2015
Chile	Expanding self-supply renewable energy systems in Chile	Energy	2014
Colombia	Transit-oriented development	Transport	2015
Costa Rica	NAMAs in the Costa Rican coffee sector	Agriculture	2014
Georgia	Adaptive Sustainable Forest Management in Borjomi- Bakuriani Forest District	Forestry	2014
Indonesia	Sustainable Urban Transport Initiative	Transport	2011
Mexico	NAMA for sustainable housing in Mexico	Buildings	2012
Peru	Transport NAMA in Peru	Transport	2015
South Africa	South African Renewables Initiative (SARI)	Energy	2012
Tajikistan	Tajikistan Forestry NAMA	Forestry	2015
Thailand	Thailand Refrigeration and Air Conditioning NAMA	Energy	2015

Source: Ecofys (2015) & NAMA Registry

There are 151 NAMAs and 29 feasibility studies in 44 countries to explore.



- A Algeria Argentina Armenia Azerbaijan
- B Bangladesh Barbados Brazil Burkina Faso
- C Chile Colombia Cook Islands Costa Rica

D Dominica Dominican Republic E Ecuador E cont. Egypt Ethiopia

G Gambia Georgia

I Indonesia

J Jordan

K Kazakhstan Kenya Kyrgyzstan L Laos Lebanon Libya

M Mali Mexico Mongolia M cont. Morocco

P Pakistan Peru Philippines

S Serbia South Africa Sudan Supranational T Tajikistan Thailand Tunisia

U Uganda Uruguay

V Vietnam

