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# Leveraging NAMAs for development in Africa

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## 1. Background

In climate negotiations, mitigation in developing countries has received an abundance of attention ever since the need and mode of mitigation actions by developing countries was recognized under the Bali Action Plan (BAP) in 2007. It noted that developing countries will undertake nationally appropriate mitigation actions (NAMAs) in the context of sustainable development — supported and enabled by technology, financing, and capacity-building — in a measurable, reportable, and verifiable manner. The Cancun Decisions (COP 16) further gave shape to NAMAs by deciding to set up a registry for: (i) recording NAMAs seeking international support and (ii) acting as an interface among Annex I parties and Global Environment Facility (GEF) and the Green Climate Fund (GCF), multilateral, bilateral and other public donors, and private and nongovernmental organizations (who will provide support) and Non-Annex I Parties (where these actions will take place). At COP 17 in Durban, the Parties agreed that the registry should be a robust, web-based platform, to be developed by the secretariat. The registry is also expected to function as a match-making platform where support seekers and support providers may find each other. Additionally, the Subsidiary Body for Scientific and Technical Advice (SBSTA) was requested to develop general guidelines for domestic measurement, reporting, and verification of domestically supported NAMAs.<sup>1</sup>

Arguably, the negotiations pursuing Para 1b (ii) of the BAP, focusing on issues relating to support and measurement, reporting, and verification (MRV) and their outcomes have transformed the term NAMA from a political articulation of the sovereignty concerns relating to choice of mitigation action<sup>2</sup> into a potential mechanism through which mitigation in developing countries will be supported by developed countries and recognized and verified by global community. Accordingly, it is obvious that the discourse and strategy on NAMAs needs to follow two interlinked tracks. One track, of course, is the negotiation track which focuses on issues of governance of NAMAs from the perspective of Principles of the Convention, particularly the concerns of equity and sovereignty. The other track should focus on developing a pipeline of mitigation actions at the domestic level which not only complies with national priorities in the context of sustainable development but also takes into account how the pipeline can best utilize provisions of NAMAs as a global mechanism for furthering

national goals. It is extremely critical for each developing country that the two tracks co-evolve with each other.

Along the same lines, the Group of African States made a submission on agricultural NAMA in 2012.<sup>3</sup> The rationales listed to justify NAMA in the agriculture sector included food security, poverty eradication, socio-economic development, environmental, and livelihood sustainability over the timeframes — immediate, short, medium, and long term. Apart from the fact that agricultural activities and processes are the largest contributor to emissions from Africa,<sup>4</sup> the choice of collective submission on agricultural NAMA also reflects, arguably, concerns over adaptation co-benefits. Moreover, it is a sensible choice to seek international support to revolutionize the core economic activity of the region. It is not surprising that the core assumption (and risk) mentioned in the submission is that of availability of international support for capacity building, technology, and finance for implementing proposed NAMA. While some commentators have interpreted this submission as opening the agriculture sector for mitigation, in our view the details of the submission make it amply clear that what Africa aims at is the transformation of one of their core economic activities through the vehicle of NAMAs to achieve basic developmental milestones. Building on this interpretation of the submission by the African states, this paper argues that NAMAs should be seen as an instrument for global cooperation towards mitigation with strong developmental co-benefits. Accordingly, the negotiations should focus on building NAMAs into a mechanism of global cooperation which rather than balancing climate and development concerns, enables climate policy to be a vehicle of progress.

## 2. NAMAs as a mechanism for enhancing mitigation, growth, and development

### 2.1 Africa's development challenge

Africa's contributions to global emissions have been historically low, contributing only 3.05% of global emissions. Correspondingly, the level of development too has been low. The paradoxical situation of Africa is that the vulnerabilities of the continent as well as the potential for mitigation exist in the most crucial sectors. For instance, agriculture is the largest sector in Africa, employing 70% of the population and contributing more than one-third of region's total GHG emissions. Alterations

<sup>1</sup> Para 37, Decision 2/CP.17, IIB. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#page=4>

<sup>2</sup> The adjective 'nationally appropriate' was added to avoid the speculations that other countries may dictate a country about what mitigation actions must be taken.

<sup>3</sup> See <http://unfccc.int/resource/docs/2012/awglca15/eng/misc02.pdf>

<sup>4</sup> See [http://unfccc.int/ghg\\_data/ghg\\_data\\_unfccc/ghg\\_profiles/items/4626.php](http://unfccc.int/ghg_data/ghg_data_unfccc/ghg_profiles/items/4626.php)

in temperature, precipitation, and water availability as well as the less understood impacts of CO<sub>2</sub> concentrations on growth patterns of crops, make the sector extremely vulnerable to climate change. Thus, actions which target assessment of changes in agricultural systems, changes in agricultural and water practices, agricultural diversification, risk management and insurance, agricultural research and technology development, development of agricultural information systems and markets, social protection, and disaster risk management are required for its slow and gradual transformation into a climate-smart sector.<sup>5</sup>

Africa is generously endowed with energy resources both fossil based — 9.5% crude oil, 8% natural gas, and 4% coal of the world is from Africa — and renewable energy sources. Still the continent faces enormous energy challenges and has very high dependence on traditional biomass-based energy sources for cooking and lighting. Charcoal forms a key energy source used in cooking.<sup>6</sup> Usage of traditional and inefficient three-stone cook-stoves for cooking and kerosene lamps for lighting is a common practice in the continent. Only 30.5% of the population has access to electricity. The situation is grimmer in rural Africa with an electrification rate of a mere 14.2%.<sup>7</sup> Also, where power is available, there is the issue of unreliable supply due to frequent power outages and high costs (around 30 cents per kWh).<sup>8</sup> While, on one hand, access to electricity for all is a development issue, the problems of inadequate and inefficient energy infrastructure, reliability of supply, and high cost of power has serious implications for the growth of manufacturing sector.<sup>9</sup> Inadequate power availability also forces these industries and some country governments to invest in diesel-run temporary power generation systems.<sup>10</sup>

In addition, rickety infrastructure creates cross-cutting problems for the continent. At present, African countries spend about USD 43.5 billion per annum on infrastructure, while the estimated needs are about USD 93 billion per annum.<sup>11</sup> The significant deficit in Africa's transport, energy, and information and communication technology (ICT) infrastructure is affecting

the rate of economic and social development of the continent by escalating the production and transaction costs, decreasing competitiveness of businesses, and ensuing negative impact on foreign direct investment (FDI) flows to the continent. It also restricts avenues for intra-continental trade, which is particularly important considering that Africa is regionally divided in terms of resource availability. The importance of infrastructure for economic and social development can be exemplified by the role it has played in Malawi's development in the past decade. Infrastructure has contributed 1.2% to the annual growth of Malawi's gross domestic product (GDP) over the past decade. Average condition of the country's road network has improved owing to a road investment programme and a foundation for institutional reform has been laid in the power sector.<sup>12</sup>

## 2.2. Mitigation challenges in Africa

The argument behind the necessity for mitigation in developing countries is based on their need and potential of economic growth in future and associated emissions. The urgency of growth emerges from pressing developmental challenges. High economic growth is one of the main indicators of a country's capacity to undertake development projects. Among the factors that drive economic growth is the level of development including technological and institutional capabilities. It is a well-established argument that lower levels of technological and institutional capabilities slow down the speed of technological change, which in turns slows down the growth in productivity.<sup>13</sup> This results in trapping the countries into an underdevelopment trap.<sup>14</sup> Technological transformation therefore is the key for rapid growth and presumably development as well. It is important to note that technological and institutional capabilities of a country improve simultaneously, both restricting as well as facilitating progress of each other.<sup>15</sup>

Many of the African countries find themselves in a peculiar position. The technological and institutional trajectory and infrastructure that enables de-coupling of emissions and growth

<sup>5</sup> African submissions also demand for actions in these areas in the agriculture sector.

<sup>6</sup> While the health impacts of charcoal are well known, it is also a source of deforestation and forest degradation, and its production emits a lot of methane into the atmosphere.

<sup>7</sup> International Energy Agency (IEA), 2011. 'World Energy Outlook'. Available at <http://www.worldenergyoutlook.org/resources/energydevelopment/accesstoelectricity/>

<sup>8</sup> World Bank, 2012. *Energy in Africa: Overview*. Available at <http://go.worldbank.org/ZD42IOATZ0>

<sup>9</sup> Confederation of Tanzania Industries, 2012. *Challenges of Unreliable Electric Power Supply to Manufacturers in Tanzania*. Available at <http://xa.yimg.com/kq/groups/20674633/1291009845/name/CTI-IMED+Resubmitted+July+2011.pdf>

<sup>10</sup> East African countries, whose electricity mix has a large share of hydro, commonly rely on temporary power generation systems in times of low rainfall.

<sup>11</sup> C Kingombe, 2011. 'Mapping the New Infrastructure Financing Landscape', Overseas Development Institute.

<sup>12</sup> V Foster and M Shkaratan, 2010. 'Malawi's Infrastructure: A Continental Perspective', *Africa Infrastructure Country Diagnostic (AICD)*, The World Bank. Available at <http://www.ppiaf.org/sites/ppiaf.org/files/publication/AICD-Malawi-country-report.pdf>

<sup>13</sup> M K Shrivastava, 2009. 'Towards a Green Techno-economic Paradigm', *Resources, Energy and Development* 6: 67–80.

<sup>14</sup> Jan Fagerberg and Martin Srholec, 2009. 'Knowledge, Capabilities and the Poverty Trap: The Complex Interplay between Technological, Social and Geographical Factors'. Available at [http://www.sv.uio.no/tik/InnoWP/Fagerberg and Srholec - Knowledge, Capabilities and the Poverty Trap.pdf](http://www.sv.uio.no/tik/InnoWP/Fagerberg%20and%20Srholec%20-%20Knowledge,%20Capabilities%20and%20the%20Poverty%20Trap.pdf)

<sup>15</sup> M K Shrivastava, 2007. 'Convergence in Climate Change Institutions and Consequences for Developing Countries: A Case Study of Supercritical Technology Adoption by NTPC', MPhil dissertation submitted to Jawaharlal Nehru University, New Delhi.

is apparently out of their reach on account of higher costs. The poorer developing countries find it difficult even to attain a high emission – high growth trajectory on account of this underdevelopment trap. Even rich oil-producing countries such as Nigeria, Angola, Equatorial Guinea, Chad, etc., are not able to utilize this traditional resource to drive their development,<sup>16</sup> despite sustained export of oil. In such a context, the fact that both mitigation and growth imperatives require similar interventions — for example, energy efficiency measures, use of renewable energy sources, etc. — is an opportunity for African countries to see climate action as a vehicle for coming out of their underdevelopment trap as well as forming a launch pad for attaining a trajectory of high and sustainable level of development. While this opportunity and need is recognized, and to some extent pursued by governments of African countries,<sup>17</sup> an approach clearly establishing the connections between national mitigation actions and international mechanism to facilitate mitigation in developing countries is yet to emerge. However, a consensus on how NAMAs as an international mechanism is likely to function seems to have emerged among the researchers.<sup>18</sup> Broadly, it is understood that implementing NAMA would need:

- a. international support on technology, finance, and capacity building;
- b. institutional set-up for monitoring, reporting, and verification at national as well as international levels;
- c. alignment with national development objectives along with proven mitigation outcomes; and
- d. alignment with transition to a low-carbon development trajectory.

The modalities of the first two requirements are at the core of international negotiations, while the other two requirements are to be ensured by developing country governments.

The experience with the Clean Development Mechanism (CDM) in Africa points out various barriers that prohibited the region from benefiting from the sustainable development opportunities created by CDM. The most important barriers include (i) lack of institutional and technical capabilities, (ii) high transaction costs, and (iii) difficulties in determining baseline emissions due to lack of economic activities. It is only recently that a number of programmatic-CDM projects have been registered from Africa<sup>19</sup> highlighting that stand alone mitigation projects may be difficult to come by in Africa due to

cost barriers and the way forward for Africa is through planned mitigation with a wider coverage. A NAMA in African countries, or region, therefore has to be an integral part of transition to a low-carbon economy. However, as already mentioned, a low level of development impedes technological transformation. Hence, for Africa, domestic NAMA has limited role. Instead, supported NAMAs have to become the engine of technological, institutional, and economic transformation.

### 3. NAMAs in negotiations

The on-going negotiations related to NAMAs can be described as progressing under three broad streams. The first stream is concerned with the issues covered under the NAMA registry, the second stream focuses on the MRV aspects, and the third stream broadly covers issues that are being negotiated under different agenda items but are relevant for what shapes NAMA would take in future.

#### 3.1 NAMA Registry

In its simplest form, the NAMA Registry has two functions: (i) to record the NAMAs submitted by developing countries and (ii) to facilitate access to support for NAMAs at various stages starting from concept development to implementation. The prototype of the NAMA Registry was launched in 2012. However, a number of issues remain unresolved. These include:

- Given the possibility that a NAMA may only receive partial support, how would it be categorized — a domestic NAMA or supported NAMA?
- As potential providers of support, the Durban decision includes entities entrusted with operation of the financial mechanism, GEF, GCF, along with multilateral, bilateral and other public donors, and private and nongovernmental organizations (who will provide support). At present, the options for financial support include — apart from the GCF grants — equity investment, private capital, bilateral support, multilateral financial institutions, etc. Given that the definition of climate finance is yet not clear, how would the registry record support provided through these multiple options? How is 'supported NAMA' related to the 'agreed full incremental costs' clause of financial support?
- Whether the Registry would play an active 'match-making' role? If yes, what would be its procedural modalities?

<sup>16</sup> S Khenna, 2012. 'Understanding the Political Economy and Key Drivers of Energy Access in Addressing National Energy Access and Policies: African Perspective', *Energy Policy* 47: 21–26.

<sup>17</sup> African Union, UNECA, and AfDB, 2011. *A Summary of Discussions and Lessons Learned from the Africa Pavilion at COP17/MOP7, Durban, South Africa*.

<sup>18</sup> UNEP, 2011. 'Low Carbon Development Strategies: A Primer on Framing Nationally Appropriate Mitigation Actions (NAMAs) in Developing Countries'. Available at [http://namapipeline.org/Publications/LowCarbonDevelopmentStrategies\\_NAMAprimer.pdf](http://namapipeline.org/Publications/LowCarbonDevelopmentStrategies_NAMAprimer.pdf)

<sup>19</sup> UNEP Risoe's POA Pipeline accessed at <http://cdmpipeline.org/publications/PoAPipeline.xlsx>



- What relationship will the Registry have with the requirement of developing countries submitting biannual update reports (BURs) to the UNFCCC?

### 3.2 MRV of NAMAs

The issue of MRV of NAMAs is the most controversial issue. Depending upon the type (domestic or supported NAMAs), it has been proposed that two different types of MRV arrangement should be developed. While domestic NAMAs will be MRV'ed domestically along with the BURs being subjected to international consultation and analysis (ICA) by a team of experts, supported NAMAs would be subjected to international MRV and international assessment and review (IAR). While there is a broad agreement that both ICA and IAR will be non-intrusive, non-prescriptive, and will respect sovereignty of countries and ensure that MRV should be carried out as per the guidelines decided by the COP, there are a number of issues that need to be resolved yet.

- **Sovereignty and MRV of domestic NAMAs:** The umbrella group — USA, Japan, Australia, Canada, and New Zealand — calls for the guidelines to be based on best practices and the institutional arrangement to be linked to tracking of policies along with quality assurance and quality control. The idea of 'tracking of policies' may be interpreted as an infringement of sovereignty. The EU submission stresses upon the need to take note of the fact that institutional diversity is unavoidable in order to cover different types of NAMAs both in terms of type of actions as well as geographical coverage, and keep in mind that a successful MRV system is dependent upon domestic law and regulation. While the EU's reference to the importance of domestic law and regulation is theoretically and practically useful; from developing countries' perspective, one may need to keep in mind that it may be interpreted as to suggesting that in situations where efficient MRV is not feasible, a change in domestic laws and regulations is required, which again is a potential infringement upon national sovereignty. Not surprisingly, therefore, developing countries stress upon the 'voluntary' nature of the guidelines (Saudi Arabia) and demand for capacity building for making necessary institutional arrangement for domestic MRV and guidelines for preparing NAMAs, receiving support and recognition (Uzbekistan).
- **Experts for and scope of ICA of BURs:** China recommends that experts should be nominated by host countries and the Consultative Group of Experts (CGE) should support

developing countries in building their technical capacities. The EU, on the other hand, strongly opposes any connection of experts with the host countries including nationality, nomination, or financial support. Other submissions recommend that the team of experts should be chosen either by the Secretariat (Switzerland) or in consultation with host country (Malaysia). Interestingly, Japan proposes inclusion of a domestic expert on the ICA team on account of capacity building. On the scope of ICA, while benefits of capacity building is generally cited, New Zealand allows for in-country visits for efficiency gains, whereas Israel is of the opinion that the non-Annex 1 Parties should benefit from the ICA process to the effect that after ICA, they are able to revise their measures. To this end, Israel recommends that the experts must be qualified to analyse and compare domestic MRV systems and policies. Malaysia on the contrary argues for sticking to the Cancun Agreement on ICA, i.e., review of the BURs only in a non-intrusive and non-prescriptive manner. Norway, also asks for supporting institutional arrangements for preparing BURs.

- **Degree of support and nature of MRV:** While it is generally agreed that supported NAMAs would be open for international MRV according to internationally agreed guidelines, the issues regarding who would conduct MRV and what would be the scope of MRV remain unresolved. One particular question arises with respect to those NAMAs of which only a part receives support; it is unclear whether only the supported part of it would be internationally MRV'ed or the whole NAMA will be MRV'ed. This issue also extends to the case of credited-NAMAs which originate from additional emission reduction achievements from domestic NAMAs. These issues become all the more important in the light of the fact that a lot of pilot NAMAs are on their way supported by developed countries with a stated objective of demonstrating NAMA governance before institutionalizing it.<sup>20</sup> Further, one of the conclusions from these exercises is that the MRV arrangements will have to be designed according to donor preferences.<sup>21</sup>

### 3.3. Issues under other agenda items

- **Equity in burden sharing:** NAMAs constitute but a part of the larger issue of burden sharing. Hence, the issue of equity in a post-2020 regime is equally important for NAMAs too. A developing country with some sort of mitigation obligation is less likely to receive any support to meet those obligations irrespective of its poor institutional,

<sup>20</sup> Ecofys, 2012. 'Annual Status Report on NAMAs'. Available at [http://mitigationpartnership.net/sites/default/files/mitigation\\_momentum\\_annual\\_status\\_report\\_27-02-2013.pdf](http://mitigationpartnership.net/sites/default/files/mitigation_momentum_annual_status_report_27-02-2013.pdf)

<sup>21</sup> Laura Whiting, ECN, during a presentation in a side event on NAMAs at COP 18, Doha December 2012.

technological, and financial capabilities. In other words, in order for the countries to be able to use NAMAs as a vehicle to break out from their 'underdevelopment trap', it is extremely important that they do not allow negotiations on burden sharing and mitigation commitments to take a form that may compromise their eligibility for support. It is important to keep in mind that an initial technological up-gradation propelled through supported NAMAs may generate sufficient economic dynamism that can allow countries to continue mitigating on their own and not vice versa.

- **Equity and MRV:** The degree of stringency of ICA and BURs from developing countries with reference to IAR and AURs from developed countries will have serious implications for how NAMAs are different from mitigation actions in developed countries. Uniformity of ICA and IAR and its implications need to be comprehensively understood and negotiated.
- **Governance of GCF:** Source of finance is as equally an equity issue as access to finance. How the USD 100 billion committed by developed countries by 2020 will be mobilized and what would be the rules and guidelines for its disbursement will be crucial. In this context, the evolving governance structure of the GCF is of particular interest. In the recently concluded meeting of the GCF Board, it appears that the countries are divided with respect to whether the GCF should function as a fund or a bank under the UNFCCC.
- **NAMAs and market-based approaches:** Since NAMAs are to incentivize mitigation, and promote technology and financial transfers to developing countries, negotiations focusing on mechanisms to incentivize mitigation in developing countries, mobilize and disburse climate and development, diffusion and transfer of technologies too are relevant for NAMAs. The biggest challenge for negotiators is to carve out the governance structure of NAMAs in relation to future climate instruments, especially market-based approaches (the New Market Based Mechanisms). Some Parties — Peru, The Republic of Korea, Papua New Guinea — have proposed market-based NAMAs as part of the New Market Mechanisms. Many countries have proposed potential REDD+ type projects under their NAMAs. The challenges with such integration would include ensuring the environmental integrity of emission reductions by avoiding double counting.<sup>22</sup> A framework would be required to decide whether these NAMAs would be counted under

the non-Annex I countries efforts or as part of developed country targets. Further, averting the scavenging effect that a market might create for low hanging fruits in developing countries would need to be looked at. Even more importantly, developing countries will have to be careful to ensure that the larger equity framework within which NAMAs must be situated is not diluted by linking NAMAs with other mechanisms.

- **NAMAs, LCDS, and technology mechanism:** Various components of low carbon transition are being discussed at other forums under the UNFCCC. Countries are required to submit low-carbon development strategies (LCDS), undertake technology needs assessments (TNA), and prepare technology action plans (TAPs), which are to be supported through the newly established Climate Technology Centre and Network (CTCN). The Technology Executive Committee (TEC) in its recent technical paper has highlighted how the TNA is closely linked with NAMAs and LCDS.<sup>23</sup> It is important therefore that the negotiations on NAMAs inform, and be informed by the progress on negotiations regarding the technology mechanism and support for developing LCDS. While it may be tempting to recommend that NAMAs be subsumed under the LCDS, some researchers have pointed out that having an LCDS as a prerequisite for NAMA-support might pose a significant barrier for countries to implement NAMAs, as making an LCDS can be an on-going and time consuming process.<sup>24</sup>

## 4. African submissions on NAMAs

### 4.1. Measurement, Reporting, and Verification of actions

During the inception of discussions on MRV, South Africa had expressed that both sustainable development and climate co-benefits of mitigation action must be MRV'ed. Similar views were endorsed by LDCs (on behalf of LDCs and Small Island Developing States [SIDS]) and Algeria (on behalf of the African Group) in their respective 2009 submissions to the AWG-LCA on elements of BAP. The African Group categorically stated that developing country actions will be conditional on provision of technology, financing, and capacity-building in a measurable, reportable and verifiable manner by Annex I Parties. Further, it stated that the choice of action will range from NAMAs, including sustainable development policies and measures

<sup>22</sup> X van Tilburg, L Cameron, L Würtenberger, S J A Bakker, 2011. 'On Developing a NAMA Proposal', Discussion Paper 1, Energy Research Centre of the Netherlands (ECN). Available at <http://www.ecn.nl/docs/library/report/2011/o11053.pdf>

<sup>23</sup> See <http://unfccc.int/ttclear/sunsetcms/storage/contents/stored-file-20130320120301019/Background%20Paper%20interlinkages%20TNA.pdf>

<sup>24</sup> Tilburg et al., 2011. 'On Developing a NAMA Proposal'.

(SD-PAMS), programmatic CDM and others. The Central African Republic also advocated the need for a 'measurable, reportable, and verifiable' funding which is 'equitably' mobilized from a variety of sources including Official Development Assistance (ODAs). While these discussions have not moved any further, issues on the practical aspects of MRV can be found from these submissions by African Parties. For instance, Gambia in an in-session workshop on NAMAs urged for the inclusion of performance indicators for 'both donors as well as recipient' project proponents.<sup>25</sup> While the submissions from African countries are broadly in agreement on the question of what should be MRV'ed, their views on who should undertake MRV are diverse. Different countries have proposed different bodies to conduct MRV including the UNFCCC, specialized national institutions, and independent agencies, mutually determined by donor and recipient countries, etc.

## 4.2 Institutional support and capacity-building requirements

The various African Proposals highlight the need for capacity building. For example, South Africa's proposal establishes the need for a national coordinating body that addresses all aspects of implementation, strengthening the institutional capacity of national focal points, and helping all stakeholders to be established. Ethiopia advocates creation of a technical panel on capacity building that would monitor the effective institution building in the continent which is reviewed by a technical panel comparing the requests submitted to UNFCCC by the concerned developing party. Prior experience with market instruments (CDM) has illustrated the significance as well as challenges of capacity enhancement and institution building in several African countries. For NAMAs, which would demand higher involvement and association of national authorities in the facilitation, prioritization, conceptualization, design as well as implementation of actions, capacity enhancement and effective institution building would be of paramount importance for successful participation by the continent.

## 4.3 Technology development and transfer

On the issue of technology, submissions from Africa have demanded support for undertaking TNAs and developing TAPs (Ghana, Swaziland) and sufficient funds from developed countries to meet full costs and/or full incremental costs of technologies along with removal of barriers to technology transfer (Algeria). Zambia also asked for financial support for further development of technical and institutional capacities of

African countries. Ghana advocated the need of an incentive package for technology transfer covering support, supervision, monitoring, and evaluation of the effectiveness of actions on technology transfer along with introducing an enforcement regime. It recommended establishing a multilateral technology fund for this specific purpose along with promoting private sector participation and collaborative research and development.

## 4.4 Source and target of financial support

African proposals have indicated that support would be required from Annex-I Parties in order to ensure action in developing countries. In addition to demanding adequate and predictable funding subject to MRV (Zambia), including a demand for commitment from developed countries for new and innovative sources of public and private sector finance, with the major share coming from public finance (Algeria) some submissions also indicated where should the funding be targeted. South Africa, for example, advocated public support for SD-PAM whereas Malawi suggested funding for investment in agriculture, waste management, energy, land use and land-use changes and forestry, and industrial processes.

# 5. NAMA proposals from Africa

The non-Annex I Parties were requested by COP 16 to submit the list of potential NAMAs to the Secretariat. As per the NAMA database, maintained by Ecofys,<sup>26</sup> about one-third of the NAMA proposals are from African countries. Most of them are from the energy supply sector (50%), with focus on renewable energy development, specifically through solar and wind. Transport and buildings sectors constitute 17% each. The actions under the energy supply sector include (i) development of concentrating solar power plants in Algeria, (ii) Development of grid-connected renewable energy, (iii) renewable energy investment in Egypt, (iv) Incremental funding of 10 GW of wind power up to 2020, (v) incremental funding of 5 GW of concentrated solar power up to 2020, (vi) Morocco's solar plan, (vii) Tunisia's solar plan, and (viii) the South African Renewables Initiative (SARI). The recent submissions from the African Group of States, Swaziland, and Malawi draw focus on the agriculture sector by proposing NAMAs that aim at (i) seeking opportunities for technology deployment; (ii) enhancement of technology research and development in key areas in the agriculture sector; and (iii) getting assistance to build capacity to develop, implement, and monitor Agricultural NAMAs.

<sup>25</sup> FCCC/AWGLCA/2012/MISC.2

<sup>26</sup> See <http://namadatabase.org>.

## Conclusions: Making NAMAs a catalyst for growth in Africa

The policy orientation of African countries indicate that agriculture, renewable energy, fuel replacement and energy efficiency, and infrastructure creation are the four legs of actions targeting development that will have associated mitigation benefits for the continent. Efficiency improvement and replacement of traditional cook-stoves would have marked environmental benefits over and above socio-economic benefits to rural Africa. Fuel replacement by improving the production of charcoal would assist in rural development and decrease the methane generated in its production. Thus, the future strategy would require not just actions to cash on the renewable energy potential of the continent but also to gradually switch to cleaner and more efficient fossil fuel technologies.<sup>27</sup>

In the given developmental challenges and opportunities present in Africa, the strategy of African States in negotiations is broadly in line but appears to be rather fractured. While it is encouraging to see a number of NAMA concepts developed in and for African countries, strategically the approach may need to be revised. In order to best utilize NAMAs as a catalyst for growth and sustainable development in Africa, the following recommendations may be considered:

- African countries should avoid seeking support for developing NAMA concepts, rather it should be done within the broader rubric of developing LCDS, undertaking TNA, and developing TAPs. To this end, they would do better by asking for a separate capacity-building fund.
- Once the LCDS are developed, elements of it should be taken up as NAMAs seeking support for implementation.
- The boundaries of NAMAs should be made clearly separate from actions eligible to participate under other market-based mechanisms. While considering any proposals on linkages of NAMAs with the evolving international

architecture for market-based mechanisms, the inherent risk of alienation of the continent as faced in CDM due to a less developed market must be kept in the hindsight. Inherent to this linkage is the issue of demand for cost-effective mitigation arising from Annex I countries and the issue of ambition. It is advisable to keep NAMA as a non-market based mechanism for cost-effective emission reductions. It must be argued that emission reduction has been primarily a responsibility of developed countries and mitigation in developing countries is not an obligation but a concession for reducing emissions at lower costs, which must be financed by developed countries.

- The negotiations on modalities of fund disbursement by the GCF should be carefully drafted so as to maintain the distinction between domestic and supported NAMAs with respect to MRV requirements.
- African countries must coordinate their position on acceptable sources of finance. It is highly recommended that private finance and equity investments are not regarded/categorized as support for NAMAs.
- Under no circumstances, African countries should accept any absolute emission reduction commitments in any form. To this end, it is advisable to stick to the distinction between developed and developing countries.
- It would be in the interest of African countries to develop a supported NAMA across region utilizing local resources for the better utilization of domestic resources as well as building capacities (institutional as well as technical) for the region as a whole. In the form of the African Union, the region already has an institutional base to build upon.
- Considering that MRV is closely linked with the issue of sovereignty as reflected in the recent submissions on MRV and ICA of domestic NAMAs, African countries would do better to coordinate their position on who should conduct MRV and how.

<sup>27</sup> ACPC, UNECA, African Union, and AfDB, 2011. 'Final Report of the First Annual Conference on Climate Change and Development in Africa', 17–19 October 2011, Addis Ababa, Ethiopia.

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