

MEETING SUMMARY:
**THIRD ASIA REGIONAL
MAIN DIALOGUE**

THE MITIGATION ACTION
IMPLEMENTATION NETWORK (MAIN)

OCTOBER 22-24, 2013

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Third Asia Dialogue of the Mitigation Action Implementation Network (MAIN)

Manila, Philippines

October 22-24, 2013

Overview & Key Takeaways

The third Asian regional dialogue of the Mitigation Action Implementation Network (MAIN) took place from October 22 to 24 in Manila, Philippines. Organized by the Center for Clean Air Policy (CCAP) and hosted by the Philippines Climate Change Commission, the meeting built on past MAIN-Asia regional dialogues in Thailand and Vietnam, as well as CCAP's May 2013 Global NAMA Financing Summit held in Copenhagen, Denmark. The MAIN initiative is undertaken with generous support from Denmark's Ministry of Climate, Energy and Building, Germany's International Climate Initiative, and other funders.

Dialogue discussions among participants from the six MAIN-Asia countries (Indonesia, Malaysia, Pakistan, the Philippines, Thailand and Vietnam), contributing countries, and financial institutions improved developing-country policymakers' capacity to design ambitious NAMAs through cross-cutting themes such as NAMA finance and monitoring, reporting and verification (MRV), as well as through smaller "breakout" sessions that dug deeper into the renewable energy, energy efficiency, waste, and transport/sustainable urban development sectors. The dialogue also broke ground by exploring synergies between adaptation and mitigation actions, such as climate-resilient energy infrastructure, which could effectively utilize donor support to implement comprehensive climate change strategies.

Among the key takeaways of the dialogue were the following:

- NAMAs should combine policy changes and financial mechanisms that help catalyze private investment to transform entire sectors, resulting in climate *and* development benefits.
- NAMA finance is coming on line, and contributing country funds, development bank finance, and private investment will play different roles in the various stages of NAMA development (capacity-building, design, implementation, and investment in underlying projects).
- The process of designing a successful NAMA should take into account the economics of policy/technology options within the NAMA's sector.
- NAMAs can be informed by and help implement low-emissions development strategies (LEDS), allowing countries to achieve national climate goals.
- MRV approaches should be kept simple, begin with existing processes/data, and include sustainable development metrics, which help countries measure progress toward development goals.

- Being strategic about developing actions that both mitigate greenhouse gases (GHGs) *and* improve resilience (adaptation) can allow countries to tap multiple funding sources and save money in weather-related disasters.
- In the renewable energy sector, renewable portfolio standards/supply obligations are often more successful than feed-in tariffs, which distort markets (often on top of fossil fuel subsidies).
- Energy efficiency is usually the least-cost option for meeting energy demand growth, and the structure of electricity rates can have a significant impact on incentivizing conservation efforts.
- Municipal waste management is a significant challenge for an increasingly urbanized Asia. Strong local governance, stakeholder engagement, cost accounting, and data collection are important for identifying appropriate NAMA opportunities.
- Integrating land-use and mass-transit policies requires cross-agency coordination but can result in significant climate mitigation, social, and economic benefits (including private investment).

October 22nd – Day 1

Opening

Secretary Lucille Sering (Philippines Climate Change Commission) welcomed participants to the Philippines and opened the dialogue by highlighting the damages caused by recent natural disasters in the Philippines and the need to take action on climate change. She mentioned the Philippines' Climate Change Action Plan – which will also result in other benefits, such as health improvements – and their desire to involve the banking sector more in climate change finance. She also announced a recently signed agreement with a major domestic bank that will help finance energy efficiency in buildings.

After a brief [video](#) on NAMAs, **Ned Helme** (President, CCAP) presented on NAMAs, NAMA finance, and CCAP's MAIN initiative, which is increasingly engaged in on-the-ground support for NAMA development in developing countries. In its work with developing and contributing countries, CCAP is seeing considerable convergence around a shared vision of NAMAs as transformational policy changes coupled with financing mechanisms that catalyze private-sector investment in low-carbon technologies and infrastructure. NAMAs are country-driven national or sectoral policies that produce both GHG reductions and sustainable-development benefits, in many cases seeking international finance to help overcome barriers. Mr. Helme also highlighted several NAMA-related finance sources coming on line, including the ground-breaking Germany/UK International NAMA Facility, the European Union's goal of spending 20% of their foreign assistance budget on climate-related activities, and the evolving Green Climate Fund (financial allocations to which will likely play a key role in enabling developing-country commitments under a 2015 international climate agreement).

The Role of NAMA Finance in Attracting Low-Carbon Investment

In this session, speakers discussed the role that public funding, development banks, and private financial institutions will play in various stages of NAMA development: capacity-building in the developing country, NAMA design, NAMA implementation, and investment in underlying projects or low-carbon

technologies. **Gert-Jan Koopman** (Deputy Director General, European Commission), explained that climate finance donors in Europe are looking to move away from grant-based financing to risk capital financial mechanisms such as credit lines, concessional debt, equity-type instruments and contingent funding mechanisms such as guarantees.

From the development bank side, **Michael Rattinger** (Asian Development Bank – ADB) discussed ADB’s response to climate change, noting the expected costs of mitigation (USD140-175 billion/year by 2030) and adaptation (USD40 billion/year by 2050) in Asian developing countries. He clarified that while private-sector contributions account for 89% of climate investments in developed countries, it is much lower (57%) in developing countries. Thus, for Asia, it is imperative that climate finance focus on increasing private-sector finance mobilization. The ADB is investing its funds in financing schemes such as venture capital and private equity in order to co-invest alongside private-sector investors.

Private-sector investors, such as pension funds, have trillions of dollars under management in mitigation projects. **Trevor Lewis** (ADB) explained that barriers for these investors include: an insufficient or uncertain business case for investment, regulatory uncertainty, lack of suitable financing vehicles, and lack of information and awareness on infrastructure investments. He encouraged governments to take specific actions to attract investors, such as ensuring a stable policy environment, addressing market failure, developing appropriate financing vehicles, and reducing transaction costs, among others.

Process of Designing Successful NAMAs

This session educated participants in the design of successful NAMAs, with a particular emphasis on economic analysis. **Leila Surratt** (CCAP) explained CCAP’s approach to designing NAMAs, which begins with sector research and stakeholder meetings to understand national priorities. Scoping analyses help identify options that are later prioritized based on technical and economic feasibility studies. CCAP also designs innovative financial mechanisms that can help catalyze private investment, such as in the Colombia waste NAMA example. Ms. Surratt elaborated on three NAMA design elements: technical (mitigation and sustainable-development goals), economic (feasibility and maximizing the impact of support), and political (political and stakeholder buy-in).

As a respondent, **Xander van Tilburg** (ECN) emphasized the need to engage both the government and stakeholders to understand existing efforts and identify the true barriers. This session included a hands-on group exercise where participants analyzed options for a waste NAMA based on economics and GHG potential. The activity helped guide the participants through the decision-making process of designing a successful NAMA.

The Role of NAMAs in Developing and Implementing National Climate Goals: Linking LEDS and NAMAs

Zooming out from the design of individual sectoral NAMAs, this session addressed the link between NAMAs and national-level LEDS, including the role of NAMAs in implementing national climate goals or LEDS. **Josephine Mangila-Tioseco** (Low Emissions Asian Development Program in the Philippines)

shed light on how the LEDS work stream can support the development of NAMAs. LEDS and NAMAs are both nationally driven, focus on GHG reductions, require economic analysis to determine feasibility, and MRV both GHG reductions and sustainable-development benefits.

This was followed by two examples from MAIN-Asia participant countries. **Joy Goco** (Assistant Secretary of the Philippines' Climate Change Commission - CCC) explained the overall evolution of LEDS development in the Philippines and the role of the CCC in designing NAMAs as a means of implementing LEDS, mentioning the Philippines' Eco-Towns Initiative as an example. A coordinating group oversees the identification of NAMAs in accordance with the Philippines' overall climate change strategy.

Syamsidar Thamrin (Indonesia's Coordinating Ministry of National Development Planning) gave an example of how Indonesia is applying LEDS development and how this aligns with their national medium-term development plan (2010-2014). Indonesia has developed an institutional framework and criteria for NAMA identification and design and has linked national and local strategies for addressing climate change (currently nearly a dozen NAMAs under development). Indonesia is also one of the few developing countries that has set voluntary commitments under the UNFCCC: to reduce emissions by 26% from business as usual by 2020 unilaterally, or by 41% with international support. In discussion, country participants expressed interest in implementing similar processes in their countries and in engaging the private sector. In response, Ms. Thamrin noted that businesses in Indonesia need clear policy signals before making climate change-related decisions.

October 23rd - Day 2

The second day of the dialogue was dedicated to smaller "breakout sessions" in four sectors: waste, energy efficiency, renewable energy, and transport/sustainable urban development. In each session, experts laid out policy options and financial mechanisms to overcome sectoral barriers, and country teams received feedback on sectoral NAMAs under development to improve NAMA design.

Waste Breakout Session

Municipal solid waste is an important sector for reducing emissions and improving quality of life. **Reka Soos** (Resources and Waste Advisory Group) described solutions to the challenges of increased urbanization in Asia, indicating that financing could be secured from the collection and transfer of waste. Ms. Soos provided examples of global best practices for composting, recycling, and mechanical biological treatment. She emphasized the importance of strong local governance, involvement of citizens, cost accounting, data collection, and the flexibility to build on countries' existing projects.

Anmol Vanamali (CCAP) discussed the financial barriers, solutions, and opportunities in the municipal solid waste sector, highlighting the potential for NAMA financing to close the gap between expected and actual returns (the financial viability gap). Mr. Vanamali emphasized the importance of flexible strategies in the sector and the utility of special purpose entities. He gave a case study example on the Colombia waste NAMA's equity fund, explaining that the fund is designed to engage the private sector.

Providing a practical example of how some of these principles can be applied in NAMAs, **Huynh Thi Lan Huong** (Vietnam Ministry of Natural Resources and Environment) presented Vietnam's waste sector NAMA. The NAMA encompasses a comprehensive waste sector strategy, including streamlining waste collection services in cities, 3R principles (reduce, reuse, recycle), the diversion of waste streams from landfill disposal, source separation, and the implementation of pilot waste-to-energy projects in Hanoi, Ho Chi Minh City, and select rural areas. **Sunee Piyapanpong** (Thailand Ministry of Natural Resources and Environment) responded highlighting the importance of awareness campaigns and rule of law to enforce compliance.

Emelita Aguinaldo (Philippines National Solid Waste Management Commission) gave an overview of the Philippines' waste NAMA, which will develop a comprehensive plan focused on reducing emissions from landfills, waste generation and disposal, and the use of fossil fuels in selected industrial processes through application of improved or innovative solid waste management techniques. **Prudencio Calado III** (LANDBANK of the Philippines) discussed the barriers to financial institutions entering into waste investment projects and explained that projects must show a strong return on investment and guaranteed revenue stream.

In discussion, participants expressed interest in learning more about CCAP's waste model and provided insights from their own national experiences (e.g., the differences in implementing waste policies in large vs. small cities). Also mentioned was a case study from Japan in which restaurants separate their organic waste, give this to a compost facility, and buy organic produce from farms that utilize the high-quality compost.

Renewable Energy Breakout Session

Given the contribution of the energy sector to countries' GHG profiles, renewable energy policies have become a priority for many countries looking to promote sustainable economic growth, energy security, and low-carbon development. **Gert Jan Koopman** (Deputy Director General, European Commission) – speaking in a personal capacity – shared the EU experience, indicating that renewable energy policies meant to increase renewable penetration often have unexpected negative consequences if not appropriately designed. He noted some perceived barriers, including cost competitiveness of technologies, fossil fuel subsidies, lack of familiarity in financial institutions with renewable projects, high transaction costs, and an insufficient regulatory framework. Mr. Koopman concluded with specific recommendations, such as combining supply obligations with the market (green certificates), reverse auctions for mature technologies, and production-related premiums instead of fixed tariffs.

In addition to appropriate policy frameworks, various financial instruments can help attract private investment in renewables. **Miles Stump** (International Finance Corporation) discussed sustainable energy financing, elaborating on four financing instruments used by the IFC for renewable energy: risk-sharing facilities, credit lines, mezzanine financing, and concessional finance. Mr. Stump provided several thoughts on stimulating private investment, including capacity-building for energy financing, establishment of centers of excellence, removal of fossil fuel subsidies, and design of appropriate regulatory frameworks. He asserted that NAMAs can utilize public funding to maximize private

investment and said the key to stimulating financing is transparency and early dialogue with banks. Participants discussed balancing the reality of substantial domestic fossil fuel reserves and the goals of economic growth and low-carbon development.

In the second part of the session, **Mario Marasigan** (Philippines' Department of Energy) explained that the Philippines is developing a NAMA that establishes a fund to provide construction financing for renewable energy developers, especially in designated "eco-towns." The government will also consider building on existing funds for project preparation, loan guarantees, and micro-financing. The NAMA seeks to streamline administrative processes by creating a virtual one-stop shop for developers. **Lily Gutierrez** (USAID) lauded the vision for streamlining the permitting process, but expressed concern that this could take some time to implement, perhaps further delaying projects.

Prasert Sirinapaporn (Thailand's Office of Natural Resources and Environmental Policy and Planning) provided an overview of key sectors under consideration for NAMAs, including energy efficiency, renewable energy and transportation. According to a marginal abatement cost curve analysis, Thailand has devised a list of NAMAs in line with their Alternative Energy Development Plan that the country would like to pursue unilaterally or with international support. **Isabelle Floer** (Germany Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) commended Thailand for their progress and emphasized the importance of sustainable development impacts to secure stakeholder support (as one of four ambition criteria in the Germany/UK International NAMA Facility).

Energy Efficiency Breakout Session

Energy efficiency is often a zero- or low-cost solution for reducing emissions from the energy sector and thus offers significant opportunities for NAMAs. **Janine Migden-Ostrander** (Regulatory Assistance Project) shared her experience developing energy efficiency programs in the United States and emphasized that energy efficiency should be viewed as a least-cost option for meeting energy demand growth. She discussed the need to conduct integrated resource planning to understand forecasted energy demand versus existing and planned resources. In addition to promoting energy efficiency (i.e., deliver same use for lower energy), one should also look at energy conservation (i.e., lower demand), which can be incentivized through rate structures.

Building on the policy interventions of the previous speaker, **Anmol Vanamali** (CCAP) presented various financial mechanisms to promote investment in energy efficiency. Mr. Vanamali noted that to achieve a 450 ppm scenario by 2035, investments of roughly USD10 trillion are needed over the period 2011-2035 to meet the 44% abatement potential of energy efficiency. This is equivalent to an average annual investment of USD400 billion, hence the importance of NAMA financing for this sector. He discussed three ways of implementing demand side energy efficiency: utility-implemented schemes, end-user implemented schemes, and energy service companies (ESCOs). Mr. Vanamali elaborated on the barriers to implementation in each of these schemes, and how NAMA financial mechanisms could address these barriers.

Bringing in a concrete energy-efficiency case study, **Jesper Dirlefsen** (Denmark) shared Denmark's innovative approach to achieving significant energy savings in new buildings. He described how the building code in Denmark had an 80% reduction in allowed energy use per square meter from 1961 to 2010. The new code for 2020 will achieve an additional 68% decline from the 2010 standards. These reductions have been completely achieved through regulation, not financial incentives. Mr. Dirlefsen emphasized that regulation is key to achieving significant energy efficiency.

In the second part of the session, **Asad Mahmood** (Pakistan's Ministry of Water and Power) presented Pakistan's energy-efficient lighting NAMA, which employs several policy instruments, including: 1) development of a National Energy Efficient Lighting Strategy, energy codes, standards/labels and minimum energy performance standards; 2) a system for MRV; 3) design and deployment of a waste system for incandescent lamps and compact fluorescent lamps; and 4) and a public awareness campaign. The purchase of efficient lighting would be facilitated by a revolving loan fund.

Looking at the energy sector comprehensively, **Nguyen Quang Huy** (Vietnam's Ministry of Industry and Trade) provided an overview of the Ministry's programs to address climate change, energy efficiency and conservation, cleaner production in industry, and renewable energy. Ms. Nguyen elaborated on climate programs receiving international support, and strategies for achieving emission-reduction targets in industry. The government is exploring options for NAMAs in a range of sectors, including steel, chemicals, pulp and paper, textiles and garments, and energy.

Transportation and Sustainable Urban Development Breakout Session

Transportation and urban development are a major source of emissions in Asia and offer considerable opportunities for NAMAs. **Steve Winkelman** (CCAP) presented the Colombian transit-oriented development (TOD) NAMA as an example of a promising NAMA that integrates land use and transit and promises significant emission-reduction and sustainable-development benefits. This NAMA is expected to catalyze billions of dollars in private investment, including real estate development. Complementing the TOD case study, **Chris Hale** (Melbourne University) presented a toolkit of transport mode shift options for Asia and successful examples of integrated planning in Hong Kong, Tokyo, and Singapore. He emphasized the importance of established, proven technologies that can provide significant sustainable development benefits. In response to questions on overcoming barriers to TOD in already densely populated cities, the speakers emphasized the changing transport habits of the middle class and ability of NAMAs to deliver social and economic goals if state leaders are convinced of the opportunities TOD presents for improving quality of life.

Indonesia, like many countries, is exploring NAMAs as a means to promote sustainable urban development. **Dodhy Wibowo** (Indonesia's Ministry of Transport) presented Indonesia's evolving transport NAMA, which initially would implement low-carbon mobility plans (including bus rapid transit systems) in three pilot cities – namely Medan, Menado, and Batam – to curb rising motorization. **Ko Sakamoto** (ADB) responded stressing the importance and replicability of city-level LAMAs (locally appropriate mitigation actions) and ADB's interest in supporting related efforts in Asia. **Massimo Petrone** (CDIA) also expressed interest in providing support. There was general agreement that

growing private vehicle use and declining use of low-carbon modes of transportation, such as walking, bicycle use and public transportation, were causing a growth of emissions in the transport sector. Participants expressed interest in taking a more comprehensive approach to urban development.

October 24th – Day 3

Sustainable Development Monitoring, Reporting and Verification (MRV) of NAMAs

This session aimed to increase participants' understanding of the processes and metrics for a broader approach to MRV, which can help ensure that actions advance both national development priorities as well as climate goals. Beginning with a focus on GHG reductions, progress and impact indicators, **Frauke Roser** (Ecofys) gave examples of different MRV accounting systems, including the World Resources Institute's GHG Accounting Protocol. She mentioned Ecofys' work in the Chilean energy sector and the promise of NAMAs in closing the mitigation gap.

Exploring MRV of non-GHG impacts, **Julie Cerqueira** (CCAP) discussed indicators to measure actions, progress, and sustainable-development benefits of NAMAs. She provided examples from Bogota's bus rapid transit system, including examples of metrics used in the transportation sector, and the national level criteria used to develop project-specific metrics. She also discussed lessons learned through the Climate Investment Funds on monitoring sustainable development of mitigation actions, and provided an example from the Philippines' stakeholder process in the development of climate change plans. During discussion, participants emphasized the usefulness of building on existing frameworks, particularly those where data is available. They also discussed the importance of MRV and sustainable development benefits in achieving a global climate agreement in 2015.

Integrating Climate Adaptation and GHG Mitigation Actions

This session explored the opportunities for synergies between adaptation and mitigation efforts in developing countries. **Steve Winkelman** (CCAP) emphasized that "connecting the dots" between adaptation and mitigation policies and infrastructure investments (e.g., green infrastructure, building weatherization, and elevated subway grates) can help take advantage of different funding sources. Mr. Winkelman explained the climate risks to the private sector and why it is important for them to be engaged. He also explored the analytical, institutional, policy, and budgetary barriers to aligning mitigation and adaptation planning, and stressed that, by planning now, countries can save money on responding to natural disasters in the long term.

Providing a developing-country example, **Lovella Segayo** (Philippines Climate Change Commission) emphasized that the Philippines is prioritizing climate-smart development to achieve sustainable growth amid the climate shocks frequently experienced. The Eco-Town Initiative helps local governments design enhanced development plans that consider climatic threats, natural resource assets, and financing schemes to link climate resilience and mitigation. Nearly three-quarters of all government climate funding is geared towards adaptation, including the innovative Philippines People's Survival

Fund, which supports the adaptation activities of local governments. Program Approach Budgeting helps local governments identify ways to access national resources for climate change programs. **Huynh Thi Lan Huong** (Vietnam Institute of Meteorology, Hydrology and Environment) stressed that developing countries like Vietnam prioritize adaptation, but that mitigation is an increasing focus. Participants discussed the economic benefits of adaptation measures and the importance of incorporating the private sector. They noted the need for policymakers to consider the distinct drivers of adaptation and mitigation.

Conclusions & Next Steps

Ned Helme closed the dialogue with a summary of key takeaways from the sectoral breakout sessions and facilitated a discussion on reactions to the dialogue and next steps for MAIN-Asia. Participants highlighted the usefulness of: case studies from Colombia, the discussion on adaptation/mitigation linkages, sectoral breakout sessions, and NAMA peer review sessions. They also expressed an increased understanding of NAMAs as a combination of policies and financial mechanisms.

Among next steps, Mr. Helme proposed a global meeting (with MAIN-Asia, MAIN-Latin America and contributing-country participants) in Europe or the U.S. at the end of 2014, which would serve as a milestone for advancing NAMAs to a financeable stage. He mentioned CCAP's interest in increasing bilateral, on-the-ground support and in-country workshops in MAIN-Asia participant countries to advance NAMAs to the next level. CCAP will also plan to hold another MAIN-Asia regional dialogue in 2014, perhaps in Indonesia.

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