



**International Partnership
on Mitigation and MRV**

Asian Regional Workshop

Tracking Mitigation Actions in Asia
8 and 9 July 2014 – Seoul, Republic of Korea

Summary report



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Ministry of Environment
Republic of Korea

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

On behalf of:

 **Federal Ministry
for the Environment, Nature Conservation,
Building and Nuclear Safety**

of the Federal Republic of Germany



Workshop background

Within the framework of the Petersberg Climate Dialogue hosted in Bonn, Germany in May 2010, South Africa, South Korea, and Germany launched the International Partnership on Mitigation and MRV. The overall aim of the Partnership is to close the ambition gap by supporting practical exchange on mitigation-related activities and MRV between developing and developed countries. To this end, the activities of the Partnership contribute to the design and effective implementation of 'Low-Emission Development Strategies' (LEDS), 'Nationally Appropriate Mitigation Actions' (NAMAs) and 'Measuring, Reporting and Verification' (MRV) systems.

Bringing together climate experts and negotiators from a variety of countries, the Partnership seeks to foster mutual learning between peers, identify best practices, establish a shared mitigation-related knowledge base, and disseminate lessons learnt. This will contribute to trust-building amongst parties, capacity-building, and expertise, allowing countries to find nationally appropriate solutions to address and combat climate change.

Within this context technical workshops offer the opportunity for members of the International Partnership on Mitigation and MRV to immerse into topics of their specific and tailored interest within the thematic spectrum of mitigation and MRV.

The Asian Regional Workshop *Tracking Mitigation Actions in Asia* formed a basis for further consultation among the Asian countries with regards to MRV and Accounting over the next months and years. While having the Paris UNFCCC negotiations in December 2015 ahead, it helped countries to identify remaining gaps in their mitigation policies, and thereby facilitated collaboration amongst Asian countries in the international negotiations simultaneously. Accordingly, national interests in sustainable development and international collaboration on transforming economies were fostered.

Summary

The Asian Regional Workshop *Tracking Mitigation Actions in Asia* was held on July 8-9 in Seoul, Republic of Korea, with participants from Bhutan, China, Indonesia, Japan, Philippines, Singapore, Thailand, and Vietnam. The workshop was hosted by the Department of Environmental Affairs of the Republic of Korea in liaison with the International Partnership on Mitigation and MRV on behalf of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). The complete list of participant can be found in Appendix II of this report.

The Asian Regional Workshop provided a unique opportunity for Asian experts and negotiators to benefit from the expertise of the International Partnership on Mitigation and MRV. In doing so it



equipped the participating countries by sharing experiences and expert inputs with relevant information and approaches for MRV of mitigation actions in Asia.

The agenda included both expert inputs and sessions for sharing experiences on MRV requirements of the UNFCCC, on MRV system and NAMA development, as well as on the objective of the International Partnership on Mitigation and MRV. Participants were also given the opportunity to apply the Stock Taking Tool on their respective countries and discuss their findings in breakout groups.

Key Takeaways

- The countries showed high interest in sharing lessons learnt, particularly within the region.
- Several countries called for more regional workshops. These workshops should be based on a technical level as well as specific good practice for funding support and implementing programs, which could allow for an overall better understanding of neighboring countries' activities.
- The participants identified exchange of experience, knowledge-sharing, priority-setting, as well as the development and dissemination of tools to address priorities enlisted as valuable activities that the Partnership could facilitate.
- Several participants requested to circulate the data collected during the group exercise with the Stock Taking Tool. This could help to identify existing institutions, next steps and support needs. Furthermore, it would allow to identify common areas of interest.
- Individual MRV training and capacity building is needed.
- Some Asian countries showed special interest in systems for MRV of support. In addition, urgency to support national GHG inventory implementation plans of several participating countries was requested.
- There are many overlaps of shared efforts and activities between different agencies, a better coordination amongst them is thus needed and would therefore, enhance their overall potential.
- Improved capacity building needs assessment.
- Countries which have a role model function need further support.
- Exchange and support on the CTM (Clean Technology Mechanism) and other technology transfer mechanism could be key in supporting self-reliance economies. Especially for countries who manage the transformation from a carbon intense economic path towards a green and climate-friendly economic growth narrative, and action plans, exchange and support seem vital.



Capacity Building Needs

Capacity building needs	Lessons learnt to share from
Regional Workshops on a technical level	International Partnership on Mitigation and MRV
Individual MRV-Training	International Partnership on Mitigation and MRV
Institutionalization of data collection	South Korea
Development of emissions factors	South Korea, Philippines
NAMA prioritization	Philippines
NAMA development	Philippines
Institutional arrangements for MRV-systems	International Partnership on Mitigation and MRV

*Please note that this table is a work in progress. We continuously update capacity building needs and identify countries, which are able to provide and share lessons learnt.

Workshop proceedings

(1) Welcome and Purpose of the Workshop

*Yeosoon Anh, Ministry of Environment Korea,
Dr. Rolf Schuster, German Embassy Korea,
Dr. Alexander Fisher, German Federal Ministry for the Environment, Nature
Conservation, Building and Nuclear Safety (BMUB)*

Participants were welcomed by Yeosoon Anh from the Ministry of Environment, on behalf of the Republic of Korea and by Dr. Rolf Schuster, Deputy Ambassador, Republic of Germany.

Dr. Alexander Fisher from the German Federal Ministry of the Environment, Nature Conservation, Buildings and Nuclear Safety (BMUB) provided an overview of the purpose of the workshop and presented the International Partnership on Mitigation and MRV.



(2) International Expert Input: MRV and the UNFCCC Requirements

Ranping Song, World Resources Institute

Ranping Song gave an overview of MRV and UNFCCC requirements. His presentation prompted to a lively discussion on the role of NAMA and MRV. Several questions and comments were discussed by the participants. Some of the key messages included:

- NAMAs can assist with the economic development of a country in a way, which is environmentally responsible.
- Without measurement there is no management. Measurement enables countries to understand the gaps, biggest emission sources, and ultimately to identify solutions.
- MRV should be considered at both country and facility level – it assists with identifying where energy is wasted. The same applies to NAMAs.
- If there is no MRV, the NAMA is weakened. MRV enables the evaluation of policy instruments.
- Within the context of global emission reductions NAMAs are the building blocks of sustainable development.
- MRV is the information which helps to identify the needs.

For more information please download the complete presentation [here](#).

(3) Sharing Asian Experiences from Korea: National MRV System

Yaewon Kim, Greenhouse Gas Inventory & Research Center of Korea

Yaewon Kim updated the participants on the progress Korea made in developing its national MRV system. In her presentation it became clear that feeding back the outcomes of verification process to ensure that opportunities for improvement and emissions will be addressed in Korea in the nearer future.

Her presentation prompted into lively discussion on the logistics of implementing a system for government and industry. A key issue identified was the need to institutionalise collaborative arrangements within the different agencies in the government, which collect the emissions data.

For more information please download the complete presentation [here](#).



(4) Sharing Asian Experiences from Japan: Introduction of MRV Guidebook *Takako Ono, The Institute for Global Environmental Strategies*

Takako Ono presented two guidelines, which assist countries in the development of MRV systems:

1. Institute for Global Environmental Studies (2013): One Hundred Questions & Answers about MRV in Developing Countries.
2. Institute for Global Environmental Studies, International Partnership on Mitigation & MRV (2014): MRV Guidebook for Policy Makers.

Both publications were provided for the participants. The usefulness of the guidelines was acknowledged by all participants and Takako advised that the guide will be translated and adapted into versions for Indonesia and Vietnam in the near future.

For more information please download the complete presentation [here](#).

Please find the download of “MRV Guidebook for Policy Makers” [here](#).

Please download the “One Hundred Questions & Answers about MRV in Developing Countries” [here](#).

(5) Breakout Groups – National Mitigation Strategy and Actions (NAMAs)

Using the [Stock Taking Tool](#) participants analysed the current status of their NAMA architecture. The key themes identified were:

- The need for a technical focal point to enable continuity in collaboration and to facilitate the needs of each country.
- In Korea, Japan, the Philippines and Singapore national climate change strategies have been implemented and are embedded in other strategies. All four countries have developed mitigation activities. The responsibility for developing and monitoring mitigation actions is clearly defined; three of the countries established an overarching institution for mitigation activities.
- For the other countries, there was no information available on that topic.

The participants saw that there was a potential role for the Partnership to assist with addressing key barriers faced by countries – for example by keeping histories of progress and pilot projects as examples of lessons learnt.



(6) Breakout Groups – MRV of Emissions

In this group exercise, participants used the [Stock Taking Tool](#) to identify the existing institutions, processes and capacities for the compilation of national greenhouse gas inventories with the [Stock Taking Tool](#).

- Korea, Japan, Singapore, and the Philippines prepared and implemented national GHG inventories. Indonesia has a regulation in place for the implementation of the inventory.
- Whereas Korea, Japan, and Singapore have assigned responsibilities, in Indonesia and the Philippines the establishment of a formal process is planned or under implementation. A regular compilation process exists in Japan and Korea and is planned for Indonesia.
- Regarding the quality assurance: A QA/QC process and an inventory improvement process have been established in Korea, Japan and Singapore.
- In most of the countries sufficient staff is available at the institutions responsible for the inventory process. Nevertheless, there are capacity building needs in Indonesia, the Philippines, and Singapore regarding the understanding of technical and content related reporting requirements.
- There seem to be some shortages regarding the capacity to collect all relevant data required. The Philippines are currently working on that issue.
- The formalization of regular data collection from the sources is still under implementation in Japan and Singapore.
- Most of the countries are aware what their most relevant emitting sources are. Korea, Japan, and Singapore use country- or source-specific approaches (Tier 2 or Tier 3) for the key categories.
- The IPCC 2006 guidelines are used in Korea, the Philippines, and Singapore.

Key themes identified in the breakout session were:

- Capacity Building and Reducing Energy Intensity emerged as two key challenges
- Financial resourcing was also identified as an important barrier

(7) Sharing Experiences from China: Developing a national GHG Inventory

Yue Qi, National Center for Climate Change Strategy and International Cooperation

Yue Qi shared China's experience in developing a national GHG Inventory. Challenges faced by China focused on uncertainties in methodologies, activity level, and emission factors. Some of them included:

- Differences between governmental statistical classifications and the requirement for inventory, and the absence of data for some activity level indicators.





- Activity level data based on typical surveys are not sufficient.
- Emission factors based on sample tests and field measurements are a lack of representativeness.
- Emission factors assessed in 2005 are used for some calculations due to the lack of updated studies.

For more information please download the complete presentation [here](#).

(8) International Expert Input: Content & Challenges in Development of National MRV Systems

Ranping Song, World Resources Institute

Ranping Song gave an overview on National MRV systems, focusing on core elements and challenges when setting up such a system. He furthermore presented institutional arrangements and demonstrated how national MRV systems can be linked to international reporting. Some of his key recommendations included:

- Need for effective and sustainable capacity building
 - Large scale capacity building to fulfil HR needs
 - More effective use of harmonized tools, guidance and guidelines
 - Carefully consider the implications of outsourcing MRV-related activities
- Need for national MRV institutions
 - Robust institutional arrangements can formalize a system for data collection and QA/QC; build in-country institutional and technical capacity; ensure institutional memory and long-term sustainability of MRV processes; meet reporting requirements under UNFCCC
- Key institutional functions for national MRV
 - Designated lead MRV institution
 - Clear roles and responsibilities for relevant institutions – governmental and non-governmental
 - Mandates for data collection – MOUs and legal mandates
 - Data archiving

For more information please download the complete presentation [here](#).

(9) Breakout Groups – Needs and mechanisms of exchange/ cooperation

In the last session of the day, participants were asked to identify how collaboration could be enhanced and how the International Partnership of Mitigation and MRV could support such collaboration within the region.



A strong desire to continue and deepen the dialogue between countries and participants was raised in the discussions. Enabling exchange of lessons-learned was perceived as an important opportunity to build capacity within the member countries.

The subsequent lists record the suggestions for further steps identified in the groups:

1. How can collaboration be improved?

- Create a web-based portal
- Develop pilot projects with Asian experts and share success stories and lessons learnt within the region
- Ensure better donor coordination
- Establish a Trans-Asian regional body for specific activities and where partner countries can view their respective needs and support each other.
- Establish focal points to distribute and push country uptake and information
- Provide technical training and assistance: coordinate cross country exchange and funding options.
- Introduce interagency mechanisms such as MoA / MoU
- Capacity building needs assessment: identify common challenges

Two barriers were identified:

- There are many overlaps of shared efforts and activities between different agencies (UNEP/UNDP/UNIDO)
- Not all countries have fast internet / broadband

2. How can the Partnership support countries?

- First issue – ‘making MRV system’
- Building capacity for Train the Trainers (ToT): This requires clear terms of reference and continuity of the person who is in charge of ToT.
- Capacity Development for institutional arrangements
- Finding a way to communicate continuously (e.g. through off line meetings, e-meetings, webinars etc.). The frequency of such interactions is still to be confirmed. Every year?
- The Asian group should have focal points. Continuity of the personal/people involved should be ensured.

Two barriers were identified:

- Invitations to workshops are often vague. As a result, it is difficult to ensure that the best person is selected to participate.



- There is a lack of continuity in terms of the focal people involved in the collaboration. For instance, one person attends one regional meeting; someone else attends the following one.

(10) Sharing Experiences from the Philippines

Albert Magalang, Climate Change Office

Albert Magalang shared the Philippines' approach to its Low Emissions Capacity Building program which aims at the establishment of:

- 1) a robust national system for the preparation of GHG emission inventories established at the national level;
- 2) NAMAs and 4 sectoral roadmaps formulated within the context of national priorities;
- 3) MRV Systems designed to support the implementation and evaluation of NAMAs and LEDS.

As the development of the National GHG Inventory Implementation Plan is on its way, there are several key sectors to reconcile and will need expert exchange and support (especially if it comes to the sectorial work on energy, LULUCF, agriculture, waste, and industry). Specific shortages in experts are identified, and will need support to overcome shortages in these fields.

For more information please download the complete presentation [here](#).

(11) Breakout Group: MRV of NAMAs

The participants reviewed the [Stock Taking Tool](#) and identified their country's status on MRV of NAMAs. Some of the main findings included:

- Three countries have already MRV systems for mitigation actions in place; in Indonesia it is partially implemented. South Korea built up MRV systems for the Emission Trading Scheme (ETS), the Target Management Scheme (TMS) and the Clean Development Mechanism (CDM). The Philippines implemented MRV systems for mitigation actions related to waste, rice cultivation, and the energy sector.
- Both countries capture sustainable development benefits in a quantitative way. In China, the MRV system captures air quality and health impacts. Bhutan established air quality monitoring stations that measure nitrogen oxides (NOx) and sulphur oxides (SOx). As a negative impact of mitigation actions, Korea and Thailand identified higher electricity prices.
- Regarding the coordination of MRV for individual mitigation actions, Japan and Singapore allocated the responsibility to an institution, whereas most other countries do not have such a focal point.



- Korea and Japan have processes in place to validate and verify MRVed mitigation action impacts; Thailand is planning to establish such a process.

(12) International Expert Input: Quantification and Verification of GHG Impacts of Mitigation Actions

Sudhir Sharma, UNEP RISØ Centre

Sudhir Sharma provided an overview of quantification and verification of GHG impacts of mitigation actions. Some of his key messages included:

- Countries have been preparing GHG inventories, most developing countries twice - but on an adhoc basis.
- Regular reporting on GHG inventories is required - essentially to create appropriate institutional arrangements for regular preparation of GHG inventories.
- IPCC Inventory guidelines provide detailed estimation tools. Most developing countries use Tier I, but it is useful for countries to move to Tier II or III.
- Key information required: activity data and country specific emission factors.
- A good starting point to identify the key activity data needed is to consult existing systems of collecting information (e.g, electricity authority, statistical organization, etc).
- Identify data gaps and appropriate institutions to collecting information.
- It is also important to assess the mechanisms for ensuring sound approaches for data collection and process to ensure quality of data.
- It is better to use an iterative approach, as this allows for improvements of the process.

For more information please download the complete presentation [here](#).

(13) Sharing Experiences from Bhutan: Mitigation Actions in Bhutan

Karma Tshering, National Environment Commission

Karma Tshering provided an overview of Bhutan's mitigation actions.

Bhutan is carbon net negative as of now. During the COP 11 in Copenhagen Bhutan furthermore declared to remain carbon neutral for all times to come. This marks a huge commitment for the economy, especially since Bhutan is a LDC and its primary goal is poverty reduction and economic self-reliance.



Mitigation efforts have been reflected in the 11th Five Year Plan with regards to all sectors within the government (both central and local level). Mr. Tshering stated that due to such initiatives, huge challenges for the government occurred. As the transition of the economy requires a lot of financial and technical support to all sectors, it remains a challenge to attain their goal.

However, Mr. Tshering stressed the fact that such actions are taken by the government as a global and shared effort in combating climate change on the one hand and on the other hand to achieve national benefits and co-benefits. This national and co-benefits create opportunities as the country progresses towards economic development and its commitment for carbon neutrality.

The recognition of the need to mainstream climate change into priority areas was also identified as a key activity, which should encourage other countries. Bhutan will be happy to provide examples and further information in this regard.

Mr. Tshering also briefly presented the work on the Bhutan's Technology Needs Assessment stream along with the Technology Action Plans, which now requires support in terms of technical, financial and other forms. Having conducted such an assessment, if no support from developed countries comes, it would again become another assessment in the shelf.

(14) Sharing Experiences from Thailand: Thailand's experiences on challenges faced when developing NAMAs *Natthanich Asvapoositkul, Office of Natural Resources and Environmental Policy and Planning*

Natthanich Asvapoositkul presented the modeling work, which had been undertaken to quantify the marginal abatement costs for domestic and international NAMAs. Some of her key messages included:

- There are several groups of stakeholders and responsibilities: government technical team, government decision maker, private sector, donors, and civil society.
- It is important to engage different stakeholders:
 - Ensure active stakeholder support, and encourage their public endorsement of the NAMA.
 - Engage policy makers, and secure the necessary support for carrying out the implementation of NAMA.

Moreover, Natthanich Asvapoositkul identified key challenges, which emerged as common themes amongst many of the "sharing experiences" sessions:

1. Executive level support
2. Funding support for initiatives
3. Capacity building



4. Institutionalizing key skills in developing MRV, NAMA and LEDS.

For more information please download the complete presentation [here](#).

(15) International Expert Input: *The International Partnership on Mitigation and MRV's Objectives and Opportunities for Supporting Capacity Building*
Dr. Alexander Fisher, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)

To close the workshop, Dr. Alexander Fisher provided information on the capacity building support available through the International Partnership on Mitigation and MRV (IPMM). Participants were encouraged to register at the IPMM website and request access to the Asian Regional section of the website.

For more information please download the complete presentation [here](#).

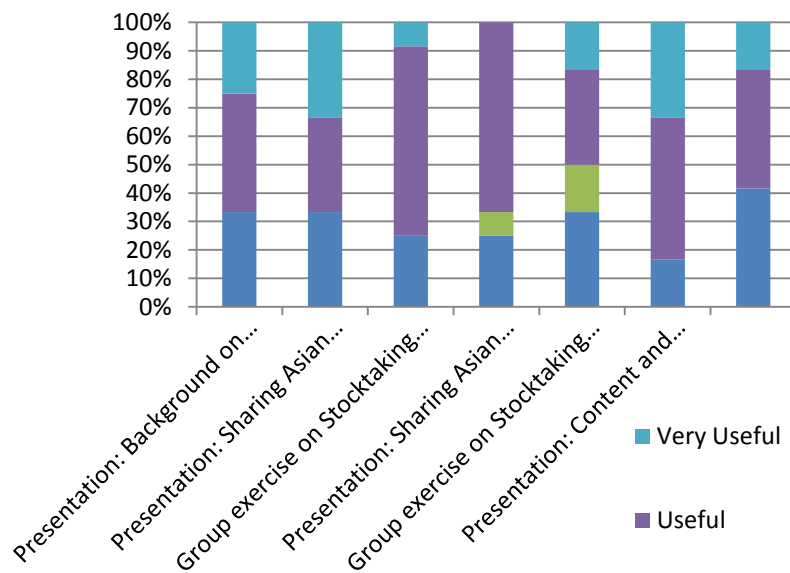
Conclusions/Next Steps

- Exchange of good practice cases (and lessons learnt). This will be facilitated by the Partnership and can be realized via regional workshops, webinars or through the website of the Partnership (e.g. an e-discussion)
- Conduction of technical workshops addressing knowledge gaps on MRV and NAMA
 - Workshops that are specialized on more detailed information sharing on a technical level
- Conduction of MRV-Trainings in selected partner countries (possibly also LEDS- and NAMA-Training)
- Facilitation of information exchange through the IPMM
- Continue the fruitful discussion at the MRV Partnership meeting at the margin of the UNFCCC October 2014 session in Bonn. The tentative date for the MRV Partnership meeting is October 22 2014, from 6 to 9 p.m in Bonn, Germany.
- The Partnership will in particular support countries which provide a role model case within their region.
- The Partnership will enhance exchange and support on the CTM and other technology transfer mechanism.

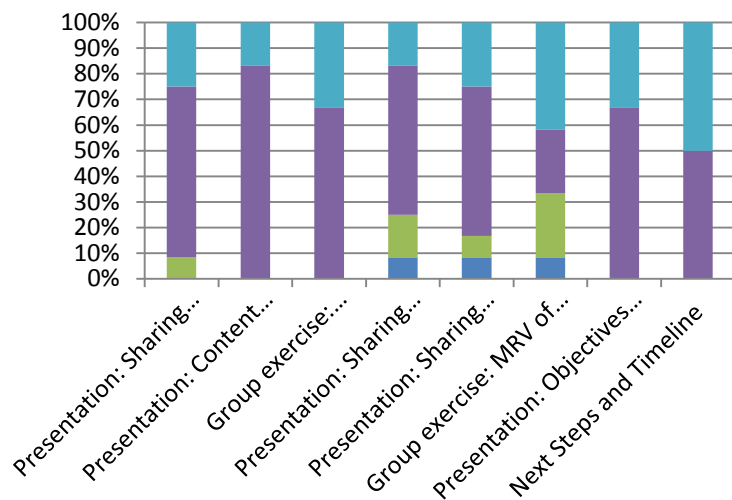


Evaluation

Day 1



Day 2





Annex 1: Agenda

DAY ONE – JULY 8, 2014		
9:00	Republic of Korea: Welcome and Purpose of the Workshop	Katrina O'Mara Moderator Mr. Yeonsoon Ahn Executive Director Korea Environment Corporation
9:15	International Expert Input: Background on MRV and Overview of requirements from UNFCCC on <ul style="list-style-type: none"> a) Domestic MRV b) GHG inventories c) BURs, NCs: Common Tabular Format d) ICA e) Registry f) NAMAs: Mitigation in developing countries 	Ranping Song China Climate and Energy Team Lead World Resources Institute
9:45	Sharing Asian experiences: Korea Challenges and strengths in national institutional systems for responding to the reporting requirements of the UNFCCC Introduction of MRV Guidebook: Japan One Hundred Questions & Answers about MRV in Developing Countries	Yewon KIM Researcher Greenhouse Gas Inventory & Research Center of Korea Takako Ono Senior Researcher The Institute for Global Environmental Strategies
10:15	Breakout Groups: National Mitigation Strategy and Actions (3-4 countries in each) 30 min each country checks individually the checklist what data is available and what challenges have to be faced	



	60 min each country presents to the breakout group which challenges they face, other countries react to that and present how they deal with these challenges <i>Methodology/ Instrument: prepared checklist “National Mitigation Strategy and Actions” from Stock Taking Tool</i>	
11:45	Discussion round on best practices, recommendations, next steps in national reporting systems	
12:15	Lunch	
13:15	Breakout Groups: MRV of Emissions (3-4 countries in each) 30 min each country checks individually the checklist what emission reduction potentials exist in their countries, what data is available, and challenges will have to be faced in the data collection 60 min each country presents to the breakout group which challenges they face, other countries react to that and present how they deal with these challenges <i>Methodology/ Instrument: prepared checklist “MRV of Emissions” from Stock Taking Tool on flip chart</i>	
14:45	Sharing Asian experiences: China Challenges and strengths in developing GHG inventories	Yue Qi <i>Assistant Researcher National Center for Climate Change Strategy and International Cooperation</i>
15:15	Coffee Break	
15:30	International Expert Input: Content and challenges in development of a national MRV system Q&A	Ranping Song <i>China Climate and Energy Team Lead World Resources Institute</i>
16:00	Stationary Talk in three groups on <i>How can different Asian countries work closer together – needs and mechanisms of</i>	



	<i>exchange/cooperation: Next Steps</i>	
17:00	Wrap-up of day 1 Rapports from the breakout groups: which challenges, how to face them <i>Methodology/ Instrument: group presentation on flip charts from the break out groups</i>	Katrina O'Mara <i>Moderator</i>
17:30	End of Day 1 of the workshop	
18:00	Welcome Dinner Grand Hilton Hotel Peacock Room (4 th floor)	

DAY TWO – JULY 9, 2014

9:00	Breakout Groups: MRV of NAMAs (3-4 countries in each) 30 min: each country checks individually the checklist what policies, strategies, plans and targets already exist 60 min: each country presents to the breakout group which challenges they face, other countries react to that and present how they deal with these challenges <i>Methodology/ Instrument: prepared checklist "MRV of NAMAs" from Stock Taking Tool on flip chart</i>	
10:30	Sharing Asian experiences: Philippines NAMA processes in the Philippines and the linking of its MRV system for emission reductions into their inventories	Albert Altarejos Magalang Head Climate Change Office,
11:00	International expert input: Content and challenges in development of a NAMA and embedding in a LEDS Q&A	Sudhir Sharma Advisor UNEP RISØ CENTRE



11:30	Discussion round on best practice, recommendations, next steps in developing MRV systems, NAMAs and LEDS	
12:00	Lunch	
13:15	<p>Breakout Groups: MRV of Support (3-4 countries in each) 30 min each country checks individually the checklist what capacities, technologies and finance is available and where the country might have needs for support to develop and implement NAMAs</p> <p>60 min each country presents to the breakout group which challenges they face, other countries react to that and present how they deal with these challenges</p> <p><i>Methodology/ Instrument: prepared checklist "MRV of Support" from Stock Taking Tool on flip chart</i></p>	
14:45	<p>Sharing Asian experiences: Thailand Challenges in developing NAMAs</p>	<p>Natthanich Asvapoositkul Director Office of Natural Resources and Environmental Policy and Planning</p>
15:15	Coffee Break	
15:30	<p>International expert input Partnership and Cooperation: The International Partnership on Mitigation and MRV's objectives and opportunities for supporting Capacity Building</p> <p>Q&A</p>	<p>Alexander Fisher Advisor German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)</p>
15:45	Stationary Talk in three groups on <i>What support would the countries like to receive from the International Partnership on Mitigation and MRV?</i>	



16:15	Outlook and agreement of next steps: <ul style="list-style-type: none"> - In each country individually - In the regional collaboration 	Katrina O`Mara <i>Moderator</i>
16:45	Wrap-up of the Workshop as a Whole Host and Partnership All developed flip charts will be discussed together in the plenary: <ul style="list-style-type: none"> a) What needs require support, what needs can be addressed by the countries themselves? b) What can be learned in terms of what ambition is feasible for countries? , What should be taken into consideration by negotiators? 	Katrina O`Mara <i>Moderator</i>
17:30	End of Day 2 of the workshop	
18:00	Dinner outside the hotel in a restaurant Meeting point at the hotel lobby	



Annex 2: List of participants

No.	Country	Title	Name	Position	Organization	Email
1	Australia	Ms.	Katrin O'Mara	Associate Director	AECOM Technology Corporation	Katrina.O'Mara@aecom.com
2	Bhutan	Mr.	Karma Tshering	Senior Programme Officer	Policy and Programming Services , National Environment Commission Royal Government of Bhutan, Thimphu	ktshering@nec.gov.bt
3	Bhutan	Mr.	Ugyen Thshering	Chief	TNA Task Force on Mitigation	ugyentshering33@yahoo.com
4	China	Dr.	Xiaohua Zhang Ph.D	Director	International Cooperation Department, National Center for Climate Change Strategy and International Cooperation (NCSC)	xzhang.ncsc@outlook.com
5	China	Dr.	Yue Qi Ph.D.	Assistant Researcher	International Cooperation Department, National Center for Climate Change Strategy and International Cooperation (NCSC)	qiyue@ncsc.org.cn
6	China	Mr.	Ranping Song	Team Lead	China Climate and Energy Team, World Resource Institute	rsong@wri.org
7	Germany	Dr.	Alexander Fisher	Advisor	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)	Alexander.Fisher@bmub.bund.de alexander.fisher@giz.de
8	Germany	Dr.	Rolf Schuster	Deputy Ambassador	Embassy of Germany	
9	Germany	Ms.	Claudia Olbrich	Third Secretary	Embassy of Germany	



International Partnership on Mitigation and MRV

10	Germany	Dr.	Sebastian Wienges	Advisor	International Partnership on Mitigation and MRV	sebastian.wienges@giz.de
11	India	Mr.	Sudhir Sharma	Advisor	UNEP RISØ CENTRE	sudr@dtu.dk
12	Indonesia	Mr.	Ari Wijanarko Adipratomo	Technical Staff	National Council on Climate Change (NCCC)	ari.adipratomo@gmail.com
13	Japan	Ms.	Takako ONO	Senior Researcher Task Manager	The Institute for Global Environmental Strategies (IGES)	mifuji@iges.or.jp ono@iges.or.jp
14	Korea	Mr.	Hyunjoon Lee	Deputy Director	Global Environment Division, International Cooperation Office, MoE	tocexpert@korea.kr
15	Korea	Mr.	Haeyong Jung	Project Manager	M&C Communications	nostra0531@gmail.com
16	Korea	Ms.	Sohyeon Ahn	Assistant	M&C Communications	sha_mnc@naver.com
17	Korea	Ms.	Jieun Bae	Staff	M&C Communications	-
18	Korea	Mr.	Jaeseong Lee	Staff	M&C Communications	-
19	Korea	Mr.	Yeonsoon AHN	Executive Director	KECO	-
20	Korea	Mr.	Kiwook Seong	Deputy Director	KECO	-
21	Korea	Ms.	Kim Seona	Program Officer	MoE	-





International Partnership on Mitigation and MRV

22	Korea	Mr.	Choi Hanchang	Deputy Director	MoE	-
23	Korea	Ms.	Mi-Youn MIN	Deputy General Manager	KECO	-
24	Korea	Ms.	Ji-Hye YUK	Assistant Manager	KECO	-
25	Korea	Ms.	Hyun-Jung KIM	Assistant Manager	KECO	-
26	Korea	Ms.	Yewon KIM	Researcher	Greenhouse Gas Inventory & Research Center of Korea(GIR)	yewon@alumni.lse.ac.uk
27	Phillipines	Mr.	Albert Altarejos Magalang	Head	Dept of Environment and Natural Resources	albertmagg@emb.gov.ph
28	Singapore	Ms.	Linda Siow	Assistant Director	National Climate Change Secretariat, Prime Minister's Office	Linda_SIOW@nccs.gov.sg
29	Thailand	Mr.	Thanyathorn Sawatdiwong	Policy and Plan Analysis Officer	Office of Natural Resources and Environmental Policy and Planning	thanyathorn.saw@gmail.com
30	Thailand	Mr.	Natthanich Asvapoositkul	Director of Climate Mitigation Analysis and Development Section	Office of Natural Resources and Environmental Policy and Planning	natthan.asv@gmail.com
31	Vietnam	Mr.	Hoang Manh Hoa	Director	GHG Emission Monitoring and Low Carbon Economy, Department of Meteorology, Hydrology and Climate Change, Ministry of Natural Resources and Environment	vnccoffice@fpt.vn
32	Vietnam	Mr.	Nguyen Kim Tuyen	Researcher	Institute of Meteorology Hydrology and Environment	kimtuyenbn85@gmail.com



Ministry of Environment
Republic of Korea



On behalf of:



of the Federal Republic of Germany



Annex 3: Stock Tacking Tool

Stock Taking Tool

The Stock Taking Tool is an analytical tool that countries can apply for the identification of prioritized action for national MRV systems including LEDS and NAMAs. It aims at supporting countries in the assessment of the current comprehensive mitigation architecture, in order to create transparency and an information basis for planning and implementing mitigation actions. The tool addresses two demands: First, the tool can support the operative planning of mitigation projects, actions and policies and prioritize the next steps based on the user's input. Second, the tool can be used as information data base for the countries for monitoring their policies regarding MRV, LEDS and NAMAs and for the implementation process of different aspects regarding these topics.

You can download the Stock Taking Tool [here](#)