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Detailed Report  
Workshop  
“Institutional Arrangements for the Development of  
Ambitious Systems of Measurement, Reporting and  
Verification (MRV) of Greenhouse Gases (GHG) Emissions  
and Mitigation Actions on Climate Change”

April 1st and 2nd, 2014. Juan Dolio, Dominican Republic



This project is part of the International Climate Initiative (ICI). The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports the initiative based on a decision by the German Parliament (Bundestag).

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## DETAILED REPORT

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## I. Workshops' Objectives

The main objective of this two-day workshop was to establish the bases for sustainable institutional arrangements allowing the Dominican Republic to comply with the information requirements of the United Nations Framework Convention on Climate Change (UNFCCC). The Dominican Republic is keen in assuming an important regional role in the reporting of Climate Change data and, at the same time, it aspires to comply with the ambitious objectives set in its climate-compatible development plan in order to mitigate the country's greenhouse gases emissions.

To reach these goals, interinstitutional cooperation is essential. During this workshop, it was proposed to obtain an overview of the monitoring, reporting and verification (MRV) systems required to report transparently on GHG emissions and on mitigation activities to reduce these emissions. Furthermore, working groups discussed how to define the roles and responsibilities, schedules, and above all, agreements between relevant institutions to establish a sustainable MRV structure in the Dominican Republic.

## II. Program’s Agenda

The workshop was designed to work during two days with the participating institutions completing the program given in the table, below, following a hybrid scheme of discussions’ contextualization, leveling terms and concepts and examples from other countries.

Day 1 (April 1st)	
Time	Content
07:00 – 07:15	<b>Departure from Santo Domingo</b>
08:30 – 08:00	<b>Registry</b>
09:00 – 09:30	<b>Welcome</b>
09:30 – 09:45	<b>Project’s presentation and workshop’s introduction (R-AEA)</b>
09:45 – 10:30	<b>Presentation: What is MRV?</b>
10:30 – 10:45	<b>Coffee Break</b>
10:45 – 11:30	<b>Exercise M, R y V – What is it and why is it relevant</b>
11:30 – 12:45	<b>Approaches and National Benefits: Inventories, NAMAs’ MRV, MRV for Support</b>
12:45 – 14:00	<b>Lunch</b>
14:00 – 15:15	<b>Institutional Arrangements – Examples from Germany, Mexico and Chile, as well as, good national practices (IDAC)</b>
15:15 – 15:30	<b>Coffee Break</b>
15:30 – 17:15	<b>Group work: What information is needed and what information is available? Group discussion on collaboration between institutions.</b>
17:15 – 17:30	<b>Closure</b>

### Day 2 (April 2nd)



Time	Content
09:00 –09:15	<b>Welcome</b>
09:15 – 12:30	<b>Group work: Defining an MRV structure</b> – <i>Considering the organizations involved and the necessary exchange, how could a functional and sustainable institutional structure for the Dominican Republic be established?</i>
12:30 – 13:45	<b>Lunch</b>
13:45 –17:00	<b>Group work – Implementation Plan</b> – <i>Definition of responsibilities, strategies, required staff, technical training, among others.</i>
17:00 – 17:15	<b>Workshop closure</b>

### III. Facilitators

**Omar Ramírez:** Secretary of State. Executive Vice President of the National Council for Climate Change and the Clean Development Mechanism (CNCCMDL) and national focal point art. 6 UNFCCC.

**Oscar Zarzo:** Information Matters Project Coordinator. Representative of GIZ (German Cooperation Agency) headquarters in Germany and at the Competence Center for Climate Change, Department of Environment and Climate Change.

**Sina Wartman:** Principal Consultant Ricardo-AEA, subcontractor for the project who has experience with the National Inventories in the UK and the MRV for National Policy.

**Daniel Abreu:** Focal Point Information Matters Project in the Dominican Republic. He is Climate Change and Public Policy's consultant.

**Juan José Veras:** Airworthiness Inspector, Bureau of Flight Standards Service of the Federal Aviation Administration (FAA), who presented an example of Good National Practices.

## IV. Workshop Development

### 1. Protocol Section and Workshop Introduction

Daniel Abreu, Dominican Republic Focal Point for the “Information Matters” project, enunciated the welcoming remarks and asked the participants to introduce themselves and share their institutions and the work they are leading at this time. At that time, it was also clarified that during the course of the workshop the work would be based on the results of the kick-off workshop held in October 2013.

Attendees to this first capacity-building workshop in the Dominican Republic can be found in Annex 1 of this report.

Motivational words were presented by Mr. Omar Ramirez, Executive Vice President of the National Council for Climate Change and the Clean Development Mechanism (CNCCMDL, by acronym in Spanish), who welcomed the presence of the representatives of GIZ, UNDP and the Ministry of Environment and Natural Resources. He emphasized that, as external Annex I countries, our countries are obliged to start preparing information on climate change issues for submission to the United Nations Framework Convention on Climate Change (UNFCCC).

In addition to that, within the National Development Strategy (END, Law 1-12), Climate Change is considered as a transverse axis that is necessary to articulate to achieve sustainable development.

Additionally, he welcomed all the participants on behalf of the Council, highlighting the workshop relationship with the fifth report of the Intergovernmental Panel on Climate Change (IPCC), which underlines that human activity is responsible for climate change with a scientific certainty of 95%. The 2-degree increase goal in average temperature, as agreed by the countries of the convention, is the maximum bearable temperature for humanity, “more than two degrees would be catastrophic”.

He stressed that, in consultation with the Vice President of the Dominican Republic, it was decided that despite national circumstances, it is vital the realization of the report for 2014. Starting with the publication of the END the country has indicators that must be met, and by January 2015, the report should be ready to be presented to the Congress. In said report, it should be exposed, among others what has been the amount of emissions by 2014. It is the government's responsibility to establish emission reports and national communications. This would be a momentous step that we would be giving.

He thanked on behalf of the Dominican Government and on the part of the CNCCMDL the support of GIZ's “Information Matters” project. He also thanked the United Nations Program for Development (UNDP) for their support with the development of the Third National Communication.

## **2. Day 1. April 1<sup>st</sup>, 2014**

### **a. Project's presentation and workshop's introduction. Sina Wartmann**

The representative of Ricardo-AEA proceeded to the presentation of the project's objectives, and explained the role of Ricardo-AEA in this project as a subcontractor, providing its technical expertise and international experience in MRV issues. Ms. Wartmann explained that one of the objectives is to ensure that developing countries (non- Annex I) can make their GHG emissions' reports and national communications and biennial update reports through data collection and analysis of data, among other things. The project is currently supporting four countries: Chile, Ghana, the Philippines and Dominican Republic. Previous to this workshop, a gap analysis was done to understand what the needs in terms of capacity training for the Dominican Republic are. Here in the Dominican Republic, for example, there is a need to build institutional arrangements; prior to conduct any technical trainings, we have to build a communication infrastructure for the project to succeed. In addition, as part of the planning process, this two-day workshop is conducted with the aim of defining the roles and responsibilities of all the institutions involved in the MRV system for climate-change related information in the Dominican Republic.

Subsequently, in June, a one-week workshop on the scope of inventory of GHG emissions will be held in cooperation with UNDP, to join efforts in preparing the Biennial Update Report (BUR) and the Third National Communication. Tentatively planned for September or October is a further workshop on technical training for GHG inventory preparation to support implementation at operational level.

### **b. Presentation: What is MRV? Sina Wartmann**

The Ricardo-AEA representative made a presentation explaining what is MRV (Monitoring, Reporting and Verification), which means assessing and reporting on certain aspects and how they change over time.

The measurement/tracking/monitoring provides relevant data for related indicators. The report attempts to relevantly communicate facts to significant actors; and, verification is to check the data measured and reported to ensure quality. In short, MRV is a planning instrument, becoming a decision-making support element very similar to monitoring and Evaluation (M & E).

A robust MRV system increases the probability of receiving international support, because it guarantees a good cost-effectiveness relationship. MRV should point to the level of accuracy needed for decision-making. This ensures the design and subsequent implementation process of a measure, and finally guarantees the measure's evaluation based on the data provided.

For the subject of tracking/monitoring, measurements are based on indicators, which in turn must follow the SMART principles, as explained by the following acoustic:

- S Specific
- M Measurable
- A Achievable
- R Relevant
- T Time-Bound

For the report, the following aspects must be considered:

- The national and international audience
- The information needs, and
- The data that must be included.

As a final step, the verification of the above is carried out.

To complete the Biennial Update Report (BUR), the structure should be taking into account the following aspects:

- The national circumstances and institutional arrangements for MRV
- The national GHG emissions' inventory
- The mitigation measures (NAMAs and policies) carried out on a national level
- The technical and financial support received by the country (in this case the Dominican Republic), as well as, gaps and needs identified for the corresponding technical and financial support.
- And, MRV nationwide.

Following this model, the MRV for GHG emissions are worked out and the contribution of o the NAMA's to the reduction in total emissions registered in the country is reflected.

## Questions and Answers

Q1: When discussing verification and quality assurance, are there any rules or procedure to validate?

*A1: We do not have rules for verification. In developed countries, data from companies are verified and an average per year is made, this information is then secured using many verification processes.*

Q2: What could be the supporting role of Ricardo AEA in this process?

*A2: There are countries that have to do inventories every year. Some experts work inventories in developed and developing countries. In the process, experts like us, look at the data, calculations and ask a lot of questions. The process ensures the quality and exchange of the experience.*

Q3: What inventory guidelines are being used?

*A3: The United Kingdom uses old standards because there is a guideline in the European Union that indicates that everyone should use the same guidelines since 1997. However, they are already in the process of changing to use the IPCC 2006 guidelines. All developed countries have the same problem of having doubts with data and assumptions; there are always improvements in data collection.*

Following the presentation, the Engineer Juan Veras Cuevas from the Dominican Institute of Civil Aviation, share the experiences of the IDAC identified as a good Dominican practice for institutional arrangements for reporting of climate-change related information, as several institutions mentioned in the previous workshop that there are good practices in the country.

**c. Presentation: Dominican Republic CO<sub>2</sub> Reduction Plan for Civil Aviation- Update. Juan Veras Cuevas.**

This presentation tried to notify the public of an example of good practice for institutional arrangements and reporting GHG emissions made in the Dominican Republic and led by the Dominican Institute of Civil Aviation (IDAC, by acronym in Spanish) in which they are receiving technical cooperation for:

- The establishment of a system that allows reliably verification of fuel consumption in civil aviation.
- The improvement in tracking, managing and reducing CO<sub>2</sub> emissions.
- The establishment of GHG emission's inventories.
- Identification of measures to reduce the consumption of fossil fuels.

Implementation phases are to be applied in different airports as follows:

- Phase 1 in 2014
- Phase 2 in 2015
- Phase 3 in 2016

The country's strategy is geared to motivate the entire aviation industry (not just the commercial one) to the development of initiatives that are environmentally-friendly, building on staff training and implementation of best practices worldwide.

Currently, it is expected that international flights will increase; the hope is that new airplanes will be using technologies that are environmentally friendly, also improving the collection and management of information with the support of international cooperation.

## **Questions and Answers**

Q1: Who facilitates the fuel consumption's data to calculate emissions?

*A1: Usually, who supplies the fuel is a coalition named Tarpel. In 2011, there was a change in ownership and when called to investigate, they were not willing to provide information. At that time, you could not disaggregate the jet fuel with gasoline 100%. We raised the issue to the International Civil Aviation Organization (IDAC) to try to estimate this information from tables, but these did not include small aircrafts, then another table was used trying to collect and calculate the information through using a specific distance from point A to point B. Finally, the calculation had to be made based on the number of passengers per aircraft and on trip reports. The presenter explained that unfortunately the Dominican market does not have the culture of storing information in a timely manner and provide it.*

Q2: Why does this information not include helicopters?

*A2: For international operations helicopters are considered a private transaction. For IDAC the focus is mostly on commercial operations. The problem has been that all systems are adapted for commercial aircraft. Now they are changing the system to include "general aviation".*

Q3: The NASA study: how would the 291 million tons of CO<sub>2</sub> impact the country, in the case of replacement?

*A3: There are complications that can only be resolved by making changes to the fuel, but even those changes, to be made, need to wait for the certifications. In aviation, the ideas can be perfect but until they are not certified they cannot be used.*

**d. Presentation: MRV Tool: Support for the establishment of national MRV systems. Oscar Zarzo, GIZ.**

The GIZ representative and “Information Matters” project coordinator, presented information concerning the MRV tool, structure, purpose, and management perspectives.

He underlined that the governments of Germany, South Korea and South Africa have created an international partnership to work on the issue of mitigation and that the MRV tool is a response of the GIZ within this alliance, as an answer to the growing demand of countries on supporting material, since it has been highlighted the need for a guidance document on how to establish a national system of MRV.

This tool is mainly about three types of MRV, those MRV are:

- GHG emissions
- NAMAs
- Support

The common structure in the tool for each one of these points includes: success factors, first steps, measuring/monitoring, reporting, verification and continuous improvement. The main goal is to improve skills at national, subnational and sectoral level on MRV, and help establish and improve a national MRV system that includes records for national inventories, NAMAs and Support.

## Questions and Answers

Q1: The MRV of emissions, is the same as the inventory? And support?

*A1: The MRV of GHG emissions and the MRV of inventory is the same thing; and the MRV of support refers to the needs the countries identify; as to what kind of support is needed to improve their skills, to improve inventory to prepare the biennial report, and support received by the country.*

Q2: The software of the Convention yields the same results?

*A2: No, this is not meant to complete any inventory, but instead is a guide of steps to follow in order to work on an overall MRV system. This is not used for the inventory. The presenter also explained that the tool is a supporting tool for countries on how to design their MRV systems and a very good and compact source of information on many topics related to MRV.*

### e. Group work: MRV Exercise

The commissioned work had the goal to analyze what MRV is and what its main steps are. In this case the participants were divided into three groups so that each group, answers a series of guiding questions to support the analysis of the three components of an MRV system: measuring/monitoring, reporting and verification.

#### MEASUREMENT GROUP

##### ***What is measurement?***

- It is a tool to achieve goals
- Serves for decision making
- Projects priority indicators
- Provides data related indicators
- Validates information and redesigns strategies
- Improves/compares data in time slots

##### ***What are the most important steps?***

- Establish indicators in terms of quality, quantity and time
- Establish a baseline
- Establish a time horizon
- Design, operation and evaluation (D-O-E)

All this, obviously, following the SMART principles.

## REPORTING GROUP

### *What is Reporting for?*

- Inventories of GHG emissions are made
  - o To be reported to the UNFCCC on the status of national GHG emissions and as a planning tool to take mitigation measures (NAMAs or CDM), as well as identify funding and support needs.
  - o Using instruments such as the National Communications and Biennial Updated Report
- Who reports is:
  - o The country through focal points, which in Dominican Republic are:  
CNCMDL  
MIMARENA
- To measure progress of the commitments made to the UNFCCC.
- Provide information to estimate total global emissions.
- Access to technical and financial resources to develop mitigation measures.
- Development of national policies and actions to reduce emissions.

### *What are the most important steps?*

- Creation of the National MRV system. This, in order to ensure its permanence.
- Establish the structure for system operation.
- Establish the mechanisms for information flows.
- Create appropriate institutional and technical capacities.

## VERIFICATION GROUP

### *What is verification?*

- Quality control to validate the information obtained from the MRV giving us feedback to adjust strategies, tools and approaches.

### *What are the most important steps?*

- Identify indicators.
- Check the methodology
- Check the quality and relevance of the data.
- Verify that the methodology is correctly applied.
- Make comparisons with other similar validations.

#### **f. Presentation. National Inventory of Greenhouse Gas Emissions. Sina Wartmann.**

In this presentation the main objectives of national inventories were presented, among which are the following:

- Reflect the development of GHG emissions over time.
- Allow prioritizing sectors, sources and gases when defining mitigation activities.
- Allow planning and setting goals, best practices and lessons learned.

It also explained the system of GHG emissions inventory in the United Kingdom and its cycle, which is a process of: a) request for information, b) collection of information and analysis, and c) report preparation.

The presentation focused on what is needed to complete this cycle. The needs are presented in three levels, which are:

- Institutional Level
  - o Define roles and responsibilities
  - o Budget to be used
  - o Access to information sources.
- Capacity Level of skills
  - o Sectoral experts
  - o Reporting experts (the latter with knowledge of requirements of the UNFCCC)
- Technical level
  - o Methodology for calculating emissions.
  - o Well-defined processes for collecting data for calculations, for the management and archiving of data, report preparation, and continuous improvement processes
  - o Tools for all of the above

#### **Questions and Answers**

Q1: Much emphasis is put on data quality control, how is the system of data quality assurance?

*A1: There are ways, for example, when data is received, it is compared with the data we already have, like industrial benchmarks, among others. They can be compared with other members of the sector or the entire category studied. This comparison may lead to the conclusion of what data seems common to other organizations and companies, and which does not make sense.*

#### **g. Presentation. MRV of Mitigation Activities. Sina Wartmann**

This presentation tried to show what are Nationally Appropriate Mitigation Actions (NAMAs), which can be developed from a policy, based on national strategic objectives and projects, but its main feature is that it must have

government involvement. NAMAs are successful because they can help achieve the development goals of the country, and create and develop technical capabilities and attract financial and technical support.

Other benefits of NAMAs unrelated to GHGs, is that they can create jobs, attract revenue, and increase agricultural crops, among other environmental benefits. GIZ created the NAMA tool as a support and consultation's tool. It has a list of policy measures or projects that could be NAMAs, because in reality, there is no strict definition of what are NAMAs, because ultimately, it is up to each country to define what the most appropriate measures are.

The main differences between NAMAs and GHG Inventory are first related with the scale, as NAMAs are sector specific measures, while the inventory should be done at the national level and with the participation of all sectors involved; and secondly with the scope, as NAMAs interact with costs, impacts (both from GHGs and others), short and long term, while GHG inventories, are specific to the latter gases.

Consequently, what is needed for NAMAs? In this regard, it is important to remember that NAMAs, besides the institutional arrangements and technical capabilities, will need a MRV for NAMAs.

- ✓ At institutional level
  - Responsibilities for the MRV of each individual NAMA
  - Responsibilities for the coordination of the MRV of each individual NAMA to be comparable to (in terms of baseline) with MRVs nationwide
  - Budget for activities.
- ✓ At capacity level
  - Knowledge of NAMA and MRV in general, for example: indicators, approaches, validation requirements and reporting data, among others.
- ✓ At technical level
  - Coordination requirements
  - Processes for individual and national reports
  - Tools for handling data filing.

### ***Questions and Answers***

P1: When we increase the NAMAs, MRV increases? Can you expand?

*A1: More processes are needed. We have the inventory's MRV and MRV of NAMAs, but the efficiencies and processes are different. There is the possibility of joining processes, for example, if we talk about NAMA at sectoral level, in that case, you can use the inventory data because there is an overlap of information, but they are different domains. It was clarified that NAMAs are multiple actions that will create data, and all data can be measured.*

#### **h. MRV of Support. Sina Wartmann**

For this part, she proceeded to explain that the requirements for developing countries are brief and distinguish between support received and support needed.

- Support needed:
  - o Updated information on the limitations and gaps in the MRV of GHG emissions and their mitigation actions, and the financial, technical and capacity building related needs.
  
  - o With respect to technology development and transfer, the Parties not included in Annex I shall provide information on technology needs to be determined at the national level, and on the technological support received.
  
- Support received:
  - o Updated information on the support in the form of financial resources, technology transfer, capacity building and technical assistance they have received from:
    - Global Environment Fund
    - Parties included in Annex II of the Convention and other developed countries,
    - Green Climate Fund (GCF), and.
    - Other related multilateral climate change institutions, that provide support for the preparation of the Biennial Update Report activities.

A clear summary of financial flows and other support, trends, sources, purpose and impact of national and international activities pointing to climate change allow to:

- Identify good practices and increase the efficiency of support and use of funds in the national and international level and provide incentives for private sector investment
- Follow up international support agreements related to climate change, and
- Receive support covering national needs

So, in terms of MRV of support, what do we need?

- At institutional level
  - o Clear responsibilities for collection, validation and reporting
  - o Knowledge of and access to data sources
  - o Budgets for MRV of support's activities
  - o Communication with the national inventory and MRV of NAMAs on the impacts of support.
  
- At capacity level

- Knowledge of national definitions of MRV of support, monitoring methodologies, data sources, validation, reporting requirements, among others. The implementation plan of the MRV activities. Rio Markers can be used.
- At technical level
  - Agreed scope and definitions
  - Processes for collection, validation, reporting
  - Tools for data management and archiving

### ***Questions and Answers***

Q1: What are Rio Markers?

*A1: These are a categorization system to provide information on financial flows. For example, if flows are for mitigation or adaptation; if used in the field of development to see financial flows for development. However, they are not well adapted to address climate change and MRV development needs.*

Q2: According to the experiences of other countries, what can be transferred to the country project? How have the MRV arrived and how successful have they been in these countries?

*A2: Above all, it should be an experience of measuring what we will do and how to use it to reach the population. Because you have to find a mechanism for this, so it is not left on desks. However, it is clear that each country goes through this process on its own because not always an appropriate structure applies to another. This system is very new and its development was completed in February 2014, so at this moment it is being approved at political level. It is not being implemented at this time. All countries are in the same situation of implementation, so there are not many experiences; only Mexico and Chile have done some MRV for NAMAs. Right now, its being study to see what is it about. Each country is different and has its own peculiarities. We are unable to establish a formula that can be copied from others, but we can take our own realities and see what works.*

#### **i. Presentation: Organizational Structure. Sina Wartmann**

This presentation explained that for an MRV to be effective, it must use, as much as possible, the existing structures and sectors, in terms of legal, institutional and process view. Typical institutional elements of an MRV system are:

- MRV Central Team
- Data equipment
- Steering Committee
- Data Providers
- Coordinating departments

These, in turn, can be coordinated by:

- A. Decentralized systems, which are easier to ensure that the MRV meets local needs, but have the issue that data collection at the national level is more difficult if there is no coordination.
- B. Centralized systems, which are easier to manage and ensure that data is comparable, but it is necessary to involve all relevant institutions to ensure a fully functional system.

Any of the two that is implemented, it should consider some of the following success factors:

- Use existing institutions
- Define clear roles and responsibilities
- Ensure ownership by the institutions involved
- Enable capacity development
- Should be a process that goes in two directions, and especially
- Communication

### ***Questions and Answers***

Q1: Does the MRV contemplate climate change adaptation?

*A1: Yes. The MRV does cover it, but this particular project is focused on mitigation. And, in other countries they are already speaking of organizational change. But we support the integration of this subject in the MRV.*

Q2: They were called systems, however, it seems too big a concept for all that encompasses a system, would not be more feasible to focus it? What has worked more an integrated system or a more focused MRV system?

*A2: I cannot know what works well here in RD, and in reality, it is not necessary to have a large system; it can be applied more easily without many costs, and many human resources, but it is the decision of each country.*

#### **j. Presentation: Similarities and differences in institutional arrangements for MRV (summary of the document published by GIZ). Oscar Zarzo**

This presentation summarised all the ground covered throughout the day, and focused on commonalities and differences regarding institutional arrangements in different developing countries. It presented the mains outcomes of the study “Arreglos Institucionales de MRV”, published by the GIZ under the International Partnership on Mitigation and MRV.

Commonalities of institutional arrangements in developing countries:

- ✓ A coordinating/leader entity
- ✓ A interinstitutional/ministerial entity or steering committee
- ✓ One or more technical coordinators
- ✓ Sectorial working groups

Differences:

- ✓ Scope of the system
- ✓ Institution of verification
- ✓ Institutional arrangements for the administration and management of the DATA
- ✓ Compliance Bodies

**k. Presentation: Inventory Management by the Single National Entity in Germany. Oscar Zarzo**

In this presentation on the German national system for GHG inventory, it was explained that the basis for successful functional MRV systems are strong networks and agreements between institutions (voluntary in the German case). Furthermore, in the German system, the roles, sectors and their coordinators are clearly defined; a steering committee is selected and the Single National entity acts as a central focal entity with the following responsibilities:

- Coordinates the exchange of information
- Establishes a framework for inventory planning
- Determines standards
- Ensures documentation and centralized data archiving
- Initiates and ensures improved inventory
- Coordinates the review of the inventory

All this taking into account the following instruments:

- Database for inventory management
- Calculation and reporting of GHG emissions
- Documentation and archiving of all relevant information for inventory
- Development of a good practice guide, and
- Preparation of a National Inventory Improvement Plan.

***Questions and Answers***

Q1: The presentation lacked the sustainability theme, how is this type of program funded? Is there some kind of funding to continue beyond 2016?

*A1: It is a question to discuss amongst you in the Dominican Republic and that should be planned according to the national circumstances. We will provide you the technical support to reach that goal. It is however very important to discuss how to maintain the program in the future through GEF, through carbon trading, and provide other ideas. Mr. Moisés Alvarez, reminded those present that there is a commitment on the part of the country, with participation at the Convention, among others. And so far the Council has the support of the highest-level government instances.*

Q2: The quality management system, is typical of the agency or the German government?

*A2: The German quality system is something common to all processes developed at the German Federal Environment Agency. It is much more complicated than the minimum requirements, there are other guidelines (IPCC) that may be less complicated than the German.*

### **1. Group Work: What information is needed and and information is available?**

After the presentations, a working session in groups took place. The working sessions were divided into three blocks between the afternoon of April 1 and all day April 2.

For each block, participants were divided into three groups:

- MRV of Inventory
- MRV of NAMAs
- MRV of Support

During the first block, each group had to answer to the following questions:

- What do we need for a MRV system? In terms of:
  - o Roles
  - o Capacity
  - o Processes
  - o Data
- What do we have? In terms of:
  - o Roles
  - o Capacity
  - o Processes
  - o Data

#### **GROUP MRV OF INVENTORY**

Organizations represented in this group:

- |  |  |   |
|--|--|---|
| - General Direction of Migration (DGM) | - National Council on CC (CNCCMDL)         | - Center for Exports and Investment (CEIRD) |
| - GIZ                                  | - Dominican League of Municipalities (LMD) |   |

- Institute of Teachers Training (INAFOCAM)
- Ministry of Environment (MA)
- National Energy Commission (CNE)
- Ministry of Industry and Commerce (MIC)

**What do we have?**

<b>Coordinators:</b>	CNCCMDL MA			
<b>Sectors (according to IPCC Guidelines categories):</b>	Energy and Transport	Industrial Processes and Solvent Use	Waste	Agriculture and LULUCF
	<ul style="list-style-type: none"> <li>• Ministry of Energy and Mines</li> <li>• CNE</li> <li>• DGM</li> <li>• Dominican Corporation of Electrical Companies (CDEEE)</li> <li>• Coordinating Institution of the National Interconnected Electrical System (OC)</li> <li>• National Office of Terrestrial Transport (OTTT)</li> <li>• Dominican Institute of Civil Aviation (IDAC)</li> <li>• National Direction of Taxes (DGII)</li> <li>• Dominican Authority of Ports (APORDOM)</li> </ul>	<ul style="list-style-type: none"> <li>• MIC</li> <li>• CEI-RD</li> <li>• Dominican Association of Cement (ADOCEM)</li> </ul>	<ul style="list-style-type: none"> <li>• LMD</li> <li>• Dominican Federation of Municipalities (FEDOMU)</li> <li>• Ministry of Tourism (MITUR)</li> <li>• National Institute of Potable Water and Sewing (INAPA)</li> <li>• Dominican Institute of Hydraulic Resources (INDRHI)</li> </ul>	<ul style="list-style-type: none"> <li>• MA</li> <li>• National Direction of Customs (DGA)</li> <li>• MA</li> </ul>

**How to do it?**

Through a decree such as Greenhouse Gases's Inventory System (SIGEI, by acronym in Spanish) or a regulation.

**What do we need?**

- Human Resources
- Protocol for obtaining and handling information
- Training in software use

**GROUP MRV OF NAMAS**

Organizations represented in this group:

- LMD
- GIZ
- Network of Universities for the Environment (RAUDO)
- National Office of Terrestrial Transport (OTTT)
- Institute of Meteorology (ONAMET)
- Dominican Federation of Municipalities (FEDOMU)
- UNDP
- CNCCMDL

In terms of:	What do we need?	What do we have?
Roles →	<ul style="list-style-type: none"> <li>- Leaders</li> <li>- Monitoring</li> <li>- Collection and Data Processing</li> </ul>	<ul style="list-style-type: none"> <li>- Focal point per sector</li> </ul>
Processes →	<ul style="list-style-type: none"> <li>- Interinstitutional Agreements</li> <li>- Methodology (Measurement, verification and quality)</li> <li>- Standardized final report format</li> <li>- DATA Storage</li> <li>- Reports' Periodicity</li> </ul>	<ul style="list-style-type: none"> <li>- National Development Strategy</li> <li>- National Climate Compatible Development Plan (DECCC)</li> </ul>
Data →	<ul style="list-style-type: none"> <li>- Data collection for the different sectors</li> </ul>	
Capacities →	<ul style="list-style-type: none"> <li>- Technical capacity for measurement</li> <li>- Technology</li> <li>- Financial resources</li> </ul>	<ul style="list-style-type: none"> <li>- Institutionalisation of the process</li> </ul>

**GROUP MRV OF SUPPORT**

Organizations represented in this group:

- Office for the Reorganization of Transport (OPRET)
- Ministry of Finance
- DOMINICAN CORPORATION OF ELECTRICAL COMPANIES (CDEEE)E
- Ministry of Planning, Economy and Development (MEPYD)
- INDHRI
- National Office of Statistics (ONE)
- MIMARENA
- RICARDO-AEA

What do we have?	What do we need?
<ul style="list-style-type: none"> <li>- We have the Climate Change in the National Development Strategy (END) and the Plurianual Plan of the Public Sector (PNPSP)</li> <li>- National Climate Compatible Development Plan (DECCC)</li> <li>- Financial investment flows for adaptation in water, tourism and, energy mitigation</li> <li>- National Council on Climate Change</li> <li>- Green Climate Fund (forthcoming, draft)</li> <li>- A seat at the Green Fund</li> <li>- Technical support and funding with Germany</li> <li>- Industrial involvement (ADOCEM)</li> </ul>	<ul style="list-style-type: none"> <li>- National Carbon Fund</li> <li>- Capacity building</li> <li>- Multisectoral committee to coordinate and manage the country’s MRV of support</li> <li>- Framework Agreement to create the Steering Committee</li> <li>- Funding to run DECCC Plan</li> <li>- Technical and support teams in the institutions related to MRV of support</li> <li>- Define the institutions that would be involved with MRV of support for DR.</li> <li>- A specific law creating the conditions and to oblige the government to implement a national MRV with specific goals</li> </ul>

**3. Day 2, April 2<sup>nd</sup>, 2014**

The second day was devoted to group work and presentation of results, both in the morning and afternoon sessions.

**MORNING GROUP WORK**

For the morning group work, participants were asked to define:

- A map of actors
- Then, agglomerate actors and roles and responsibilities, and
- Include communication flows and processes needed

**GROUP MRV OF INVENTORY**

**Map of actors:**

<b>GHG Inventory Coordinators:</b>	CNCCMDL MIMARENA			
<b>Sectors (according to IPCC Guidelines categories):</b>	Energy and Transport	Industrial Processes and Solvent Use	Waste	Agriculture and LULUCF
<b>Task Manager/existing/proposed rector</b>	MIC-CDEEE	MIC	MIMARENA	
Existing players in each sector with relevant information for the SIGEI	Energy and Mines CNE DGM CDEEE OC OTTT IDAC DGII APORDOM MA	MIC CEI-RD ADOCEM National Refonery of Petroleum (REFIDOMSA) Institute of Sugar (INAZUCAR) Central Corporation of Sugar (CEA)	LMD FEDOMU MITUR INAPA INDRHI Water Companies (CORAs) Municipal Units of Environmentak Management (UGAMs)	MA DGA MIMARENA

<b>Data:</b>	<b>What do we have?</b>	<b>What do we need?</b>
Energy and Transport →	<ul style="list-style-type: none"> <li>- Fuel Consumption (MIC, OC)</li> <li>- Energy Balance (CNE)</li> <li>- Transport data (DGII, OTTT, OPRET, IDAC and APORDOM)</li> </ul>	<ul style="list-style-type: none"> <li>- Biomass (MA)</li> <li>- Self-supply (CNE)</li> </ul>
Industrial Processes and solvent use →	<ul style="list-style-type: none"> <li>- Refinery (REFIDOMSA)</li> <li>- Cement, Mining (MIC)</li> <li>- Textile (BC, MIC)</li> <li>- Chemical Ind. (MIC)</li> <li>- CEA (BC)</li> <li>- Free Zone (BC)</li> </ul>	<ul style="list-style-type: none"> <li>- Production waste oils (MIC)</li> </ul>
Waste →	<ul style="list-style-type: none"> <li>- Municipal Solid Waste (UGAM)</li> <li>- Domestic sewage (CORA)</li> </ul>	<ul style="list-style-type: none"> <li>- Industrial waste (municipalities, UGAM)</li> <li>- Municipal Solid Waste (UGAM)</li> <li>- Sewage, industrial and domestic water (INAPA, CORA)</li> </ul>
Agriculture and LULUCF →	<ul style="list-style-type: none"> <li>- Forestry/ REDD (MIMARENA)</li> <li>- Agriculture (MA)</li> </ul>	<ul style="list-style-type: none"> <li>- Land use (MIMARENA)</li> <li>- Forest fires (MIMARENA)</li> </ul>

### How to do it? Roles and Responsibilities:

It is proposed that each of the sectors should provide information to the Central Bank, whom would be responsible for preparing economic statistics. Data collection for the GHG inventory should be institutionalized through a decree so that the institutions commit to provide relevant information to the Council. Also there is the need to elaborate regulations so that ONE and INDOCAL become involved in the collection and management of information.

### What do we need? Information flow and processes:

- Gather relevant information,
- Train staff to handle programs and data,
- Institutionalise reporting process up to a final report that would go to the steering committee,
- In the case of the energy sector, we have some data for transport and energy balances; however, we would need biomass data, because it is unclear what amount of biomass is used in the country for energy production purposes. Self-supply of energy should be also considered as part of GHG inventory reporting for this sector.
- In industrial processes we have REFIDOMSA as data facilitator; further important data providers would be associations of cement and mining companies. Other relevant industry data providers include the textile industry, for which the Central Bank has the data and statistics; and, in the chemical industry, the Ministry of Industry and Trade and the Free Zones could provide information.

### What would be missing?

- Data on the use of oils to produce biodiesel and other data that is not at hand for inclusion in the inventory.
- There is not much information regarding sewage, or industrial waste, and perhaps municipalities can provide that information.
- In the case of forest, there are inventory data through the Ministry of Environment. A forest inventory is conducted for the REDD project in the Dominican Republic.
- Little is known about changes in land use, and furthermore, we should determine what the contribution to GHG emissions of forest fires is.

### *Questions and Answers*

Q1: That inventory would generally include all sectors or would it be an inventory per sectors?

*A1: In this case the data is taken individually by industry, but when the inventory is processed, it is done all together: emissions from the energy sector and the industry sector, among others. Comment by Oscar Zarzo: As you can see, four sectors were defined in accordance with the IPCC Guidelines: Energy and Transport, industrial processes and solvent use, waste and Agriculture and LULUCF. Each sector has a coordinating organisation and the information is collected separately, but then everything flows in a general report to be made by the overall coordinating body, the Council according to the participants of the workshop, and evaluated by an interministerial committee.*

Q2: In the map of actors you have the Dominican Municipal League and FEDOMU but you do not have municipalities themselves, why they do not appear?



*A2: Yes, they do appear, however, it is better to work with them grouped, instead of individually, also that the most important ones are in Santo Domingo and Santiago, among others.*

*Comment: The important thing is to have the support of the umbrella organization.*

*Comment: Municipal authorities are those with competence in their municipalities and sometimes what they have in their agenda and guidelines differ somewhat from the guidelines we have.*

*Comment: Yes... but it is important to keep in mind that we also have the UGAMs who are handling waste.*

*Feedback from the representative of ONE: "When collecting all the information we say it goes to CNCCMDL, but the ONE is the one who coordinates national statistics, and although we are not at that level, we should coordinate and strengthen ONE so it is through that organization that inventory information is provided.*

**Q3: Why is ONAMET not included?**

*A3: Because there is no need of information from ONAMET (since they are focused on climatic and meteorological data) to prepare the Biennial Update Report, which is what the "Information Matters" project focuses on. For the development of the National Communications the information facilitated by ONAMET on climate change and climate scenarios will be necessary.*

**GROUP MRV OF NAMAS:**

**Map of actors with roles and functions**

<b>National Focal Point: CNCCMDL</b>			
<b>Interinstitutional Committee</b>			
Diffusion and Training: - Ministry of Higer Education (MESCYT) - Ministry of Education (MINERD) - Institute for Technical Training (INFOTEP)	Special Functions: - ONAMET - Ministry of Finance	Reporting: - CNCCMDL	Verification: Coordination and Management Unit: - CNCCMDL - Viceministry of Planning - ONE - MEPYD Coordination and information processing

**Actors relevants for existing and potential future NAMAs**

<b>Forestry:</b>	<b>Transport:</b>	<b>Waste / Cement:</b>	<b>Energy:</b>	<b>Tourism:</b>	<b>Agriculture:</b>
MIMARENA	OPRET DGII OTTT Authority for Metropolitan Transport (AMET) IDAC APORDOM	MIMARENA LMD FEDOMU Dominican Asociation of Councilmen (ASODORE) INAPA CORA's ADOCCEM	CNE Ministry of Energy and Mines	MITUR National Association of Hotels (ASONAHORES) Cluster of Turism	MA Dominican Agrarian Institute (IAD) Presidential Fund for Agriculture (FEDA) Dominican Institute for Agricultural and Forestry Research (IDIAF) Centre for the Agricultural and Forestry Development (CEDAF)

Included in this part of the functions was education, because they are responsible for the diffusion and training. Although some considered this to be such a specific topic, education should be placed as a responsibility of the Council. However, information on research and education on climate change is not the focus of the BUR and not necessarily relevant for MRV of NAMAs, it is only relevant for the preparation of the National Communications.

Comment from Sina Wartmann: we must take into account that the type of training received should be considered not only on the basis of the training already received, but based on what is needed to complete the process of gathering information.



**GROUP MRV OF SUPPORT**

<b>National Focal Point: CNCCMDL</b>	
<b>Actors</b>	<b>Roles and Responsibilities</b>
MEPYD	Would draw policies, plans and programs
Ministry of Finance	Capture and distribute funds
Ministry of Environment	Develop and execute plans and policies relating to MRV / GEF Focal Point and Green Fund
National Energy Commission	Technical support for energy efficiency policies
National Statistics Office	Coordinate the national statistical system of information
National Council on Climate Change	Coordinate the design of technical, monitoring and training actions

**Communication Flows and Processes Needed:**

- At political level
  - o Interinstitutionals Agreements
- At technical level
  - o Constitution of the sectoral committee
- At process level
  - o Data Collection
  - o Data processing
  - o Data dissemination

**AFTERNOON GROUP WORK. DEFINITION OF THE ROADMAP OR “NEXT STEPS”:**

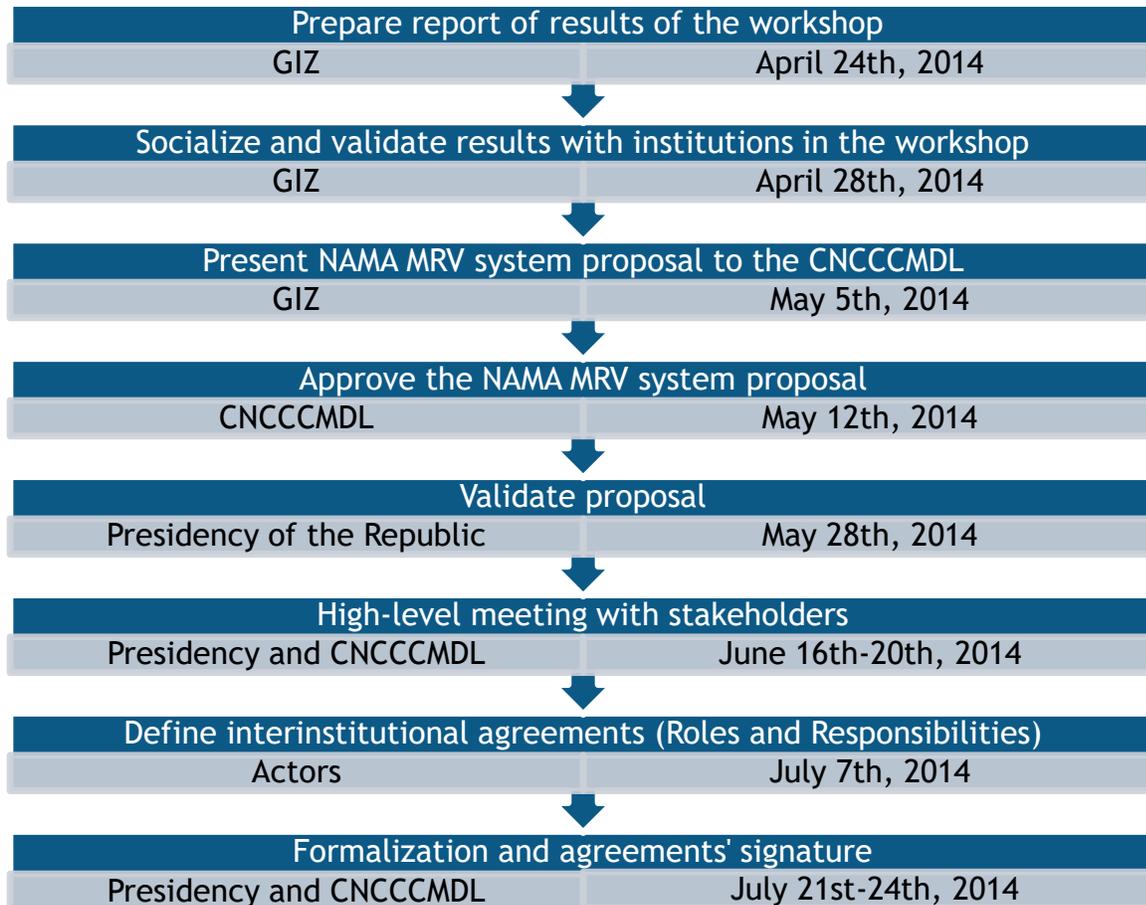
1. What?
2. Who?
3. When?

**GROUP MRV OF INVENTORY**

<b>Institutional Level</b>		
What?	Creation of SIGEI: <ol style="list-style-type: none"> <li>1. Meeting to Design Proposal</li> <li>2. Technical-legal Review</li> <li>3. Promulgation of the Decree</li> </ol>	<ul style="list-style-type: none"> <li>- Technical Supervisor Committee of GHG inventory</li> <li>- Verification of inventory information.</li> </ul>
Who?	CNCCMDL MIMARENA MIC Ministry of Energy and Mines	
When?	April-May 2014	
<b>Technical Level</b>		
What?	<ol style="list-style-type: none"> <li>1. Specialist expert on GHG inventories</li> <li>2. Handling IPCC methodology</li> <li>3. Baseline emissions (per sector)</li> <li>4. Management of NAIS Software (2014)</li> </ol>	Definition: equipment, physical infrastructure, vehicles, waste materials, financial resources, meetings, among others.
Who?	CNCCMDL MIMARENA UNDP/GEF	<ol style="list-style-type: none"> <li>1. Energy and Transport</li> <li>2. Industrial Processes and Solvent Use</li> <li>3. Agriculture and LULUCF</li> <li>4. Waste</li> </ol>
When?	April-June 2014	
<b>Capacity Level</b>		
What?	<ol style="list-style-type: none"> <li>1. Induction Program for the GHG inventory</li> <li>2. Special training on Emissions Calculation</li> <li>3. IPCC methodological training (1996-2006)</li> <li>4. Especial Training on Management NAIS Software (2014)</li> <li>5. Special Training on inventory guidelines (UNFCCC / IPCC)</li> </ol>	
Who?	Group of Experts	
When?	June 2014	

It was recommended that the training should always be attended by 2 people of each institution, so that the “know how” is not lost if one of the participants cannot continue with the training activity or the work in general.

## GROUP MRV OF NAMAS



Comment: This process was only defined until the signing of the agreement because it was understood that if the agreement is signed, an organized process would begin with the participation of all organizations involved. They would work on the basis of that agreement and the actors would define the next steps based of their own roles and responsibilities.

## GROUP MRV OF SUPPORT

What?	Who?	When?
Interinstitutional Design for the MRV of support	CNCCMDL	After the first meeting (April)
Meeting to socialize the results of the workshop		April 2014
Design working agenda		1 <sup>st</sup> meeting (April 2014)
Circulate workshop results		1 <sup>st</sup> meeting (April 2014)
Circulate draft		1 <sup>st</sup> meeting (April 2014)
Process to design MRV for support's system		2 <sup>nd</sup> meeting 3 months from that
Implementation MRV for support's system		3 <sup>rd</sup> meeting 6 months from that.

Once the working groups' session concluded, gratitude was expressed to the workshop participants by Mrs. Sina Wartmann (AEA-RICARDO) and Mr. Daniel Abreu, Focal Point of the Project in the Dominican Republic (GIZ). They indicated that the activities and group work designed a roadmap to define a working plan; they also informed the participants that they would be communicating with them for next workshop once the date is assigned.

## V. Annex

### Photographic Memory Working Groups

