

# **NAMA Design and Preparation: Prioritising NAMAs for Lebanon and General MRV Considerations – follow-up meeting**

**September 11, 2013  
Beirut, Lebanon**

## **Summary Report**

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## Overview

The 3<sup>rd</sup> national workshop<sup>1</sup> on “Nationally Appropriate Mitigation Action Design and Preparation: Prioritising NAMAs for Lebanon and General MRV Considerations” was held on September 11, 2013 in Beirut, Lebanon by the Lebanese Ministry of Environment (MoE) and the United Nations Development Programme (UNDP). The workshop took place within the framework of the Low-Emission Capacity Building Project (LECB) in Lebanon.

The follow-up workshop allowed experts and stakeholders<sup>2</sup> from public and private institutions, to revisit the outcomes of the second national NAMA workshop which was held on August 13, 2013, as well as continue discussion on the national MRV framework, and the nationally developed NAMA submission forms.

The follow-up workshop allowed to advance on the scoring of the short-listed NAMAs based on the agreed selection criteria, as well as continue general discussions on the MRV considerations at the national level. The follow-up workshop also served an opportunity to discuss and collect stakeholder feedback on the nationally developed NAMA submission forms for both types of NAMAs: those requesting support for preparation and the ones requesting support for implementation.

## Objectives of the workshop

- To brief the stakeholders on the final outcomes of the previous NAMA workshop
- To share the stakeholder responses obtained on the prioritization scoring
- Discuss difficulties of scoring – continue requesting scoring
- To share the comments received on the NAMA submission forms developed by the Ministry of Environment
- To present the broad MRV requirements and their considerations during NAMA preparation

## Workshop Proceedings and Conclusions

Following the welcoming note delivered by the Low Emission Capacity Building Project manager on behalf of the Ministry of Environment, the workshop started with sharing the results of the NAMA scoring received so far. Participants requested a recapitulation on the scoring process, as there was some ambiguity. Following that, the Ministries of Finance and Energy and Water, and Lebanese American University shared their scoring with the rationale applied. Discussion took place on the obtained scores, and the fact that they are close to each other (internal scores for each of the stakeholders); this was explained by the fact that since all short-listed NAMA ideas have crossed the “prerequisite criteria” and therefore the filtering using those two criteria (transformational and financing source) was indeed a good approach and therefore is recommended. The participants

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<sup>1</sup> Agenda in annex 1.

<sup>2</sup> List of Attendees is attached in Annex 2.

recommended to extend the pull of stakeholders for scoring purposes in order to have a wider range of views incorporated.

The second part of the workshop revolved around the nationally developed NAMA submission forms. The stakeholders provided input on the submission forms and raised concerns on the information to be included in the submission forms (for NAMAs requesting support for preparation) and whether the relayed information will be considered final once they are submitted to the Ministry of Environment. It was clarified that the NAMA submission form for NAMAs requesting support for preparation should be considered similar to a project's concept note and should present what is needed to prepare a NAMA and how much it might cost. However, it is important to keep in mind what would be required for the implementation of NAMAs (looking at the checklist in the submission form of NAMAs requesting support for implementation). Therefore, once the "NAMA preparation" is finalised, the information to include in the submission form for NAMAs requesting support for implementation is ready. It was also mentioned that NAMAs have to comply with national legislation and therefore, e.g., if a NAMA requires an environmental impact assessment (EIA), the EIA should be submitted and approved to and by the Ministry of Environment. The Ministry of Finance had specific comments related to the financial aspects of the NAMAs; the NAMA templates, similar to the NAMA Registry's templates, indicate several funding options (Sovereign loan, private loan, concessional loan, debt swap, equity, grant, guarantee, carbon finance, FDI, others). According to the Ministry of Finance, should the NAMA developer be requesting a grant, the request does not need to go through the MoF for review at the preparation phase of the NAMA. NAMAs requesting any of the other funding options need to have MoF onboard in an institutionalized process to approve the NAMA from the preparation phase. However, Council of Ministers' approval is requested for any type of NAMA (grant or otherwise). A mechanism needs to be developed for this. Ultimately, all NAMA implementation forms would need to be reviewed by MoF, including the financial analysis section, and when the financials of the proposed NAMA is not deemed to be sound, MoF would have the veto power on the project. In order to clarify this process, the MoF is willing to issue a circular to be distributed to all stakeholders, outlining the NAMA process depending on the type of financing being sought. Another issue highlighted is the capacity-building need at MoF in reviewing the financials of the proposed NAMAs. If MoF capacity is not built in time to perform the review in house, MoF will have to request funding/TA to outsource an audit to ensure the assumptions and calculations for the project are realistic and sound. Therefore, MoF suggests that NAMAs have a provision of funding or technical assistance to support this.

The last part of the workshop dealt with the general MRV requirements and their consideration during NAMA preparation. It was mentioned that MRVs should be as simple as possible, while being integral, in order not to hinder the development and implementation of NAMAs. It is also better not to create a new system, but rather adapt existing systems, if any. The government should be monitoring the NAMA process. However, since the Ministry of Environment does not have enough capacity for verification, depending on each NAMA's MRV system, the verification can be done by 2<sup>nd</sup> and 3<sup>rd</sup> party in a way that every 1<sup>st</sup> and 5<sup>th</sup> verification is conducted in coordination with the Ministry of Environment, while every 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> verifications are conducted by a 3<sup>rd</sup> party and submitted to the Ministry of Environment as part of the NAMA's reporting process.

## Next Steps

The participants decided that further stakeholders should score the NAMA options. The consolidated results will be shared by email.

Once the prioritization process is done, the next steps would be to ensure that the relevant institutions and/or agencies concerned with the implementation of the NAMAs are indeed interested in the proposed projects and would like to implement it in partnership with the Ministry of Environment and under the NAMA umbrella.

## **Annexes**

Annex 1. Agenda

Annex 2. List of Participants

Annex 3. NAMA submission forms

Annex 4. Presentation

Annex 5. Photos from the workshop

## Annex 1. Agenda



### NAMA DESIGN AND PREPARATION:

#### Prioritising NAMAs for Lebanon and General MRV Considerations

Green Room – Ministry of Environment

Beirut – Wednesday, September 11, 2013

Agenda			
Time	Sessions	Potential speakers	Objective of the session
09.45 – 10.00	Arrival/Registration		
10.00 – 10.30	Welcoming notes/opening/Briefing on previous meeting outcomes	MoE/UNDP	<ul style="list-style-type: none"> <li>- To introduce the objectives of the meeting</li> <li>- Update on previous meeting outcomes</li> </ul>
10.30 – 11.00	Results of the NAMA prioritization	MoE/UNDP/Participants	<ul style="list-style-type: none"> <li>- To introduce the responses obtained via email on the prioritization scoring</li> <li>- Final list of NAMAs – prioritized</li> <li>- Future steps</li> </ul>
11.00 – 11.15	Nationally developed NAMA submission templates	MoE/UNDP	<ul style="list-style-type: none"> <li>- To present the comments received on the draft NAMA submission templates developed by the Ministry of Environment</li> </ul>
11.15 – 11.30	General MRV considerations – what should we be looking for? Strict vs. lenient MRV approach	MoE/UNDP/participants	<ul style="list-style-type: none"> <li>- To present the broad MRV requirements and their considerations during NAMA preparation</li> </ul>
11.30 – 12.00	Open discussion and Other matters raised by participants	Participants	
	Lunch		



## Annex 2. List of Participants

	Name	Institution	Email	Phone
1	Lea Kai	UNDP-Ministry of Environment	<a href="mailto:l.kai@moe.gov.lb">l.kai@moe.gov.lb</a>	03-744252
2	Vahakn Kabakian	UNDP-Ministry of Environment	<a href="mailto:vahakn@moe.gov.lb">vahakn@moe.gov.lb</a>	03-527679
3	Ramzi Shasha	Ministry of Industry/National Council for the Environment	<a href="mailto:Ramzi_shasha@yahoo.com">Ramzi_shasha@yahoo.com</a>	71-794522
4	Rani Al Achkar	Lebanese Center for Energy Conservation	<a href="mailto:rani.alachkar@lcecp.org.lb">rani.alachkar@lcecp.org.lb</a>	03-112766
5	Lea Hakim	UNDP- Ministry of Finance/National Council for the Environment	<a href="mailto:leah@finance.gov.lb">leah@finance.gov.lb</a>	01-981057
6	Walied Sayegh	UNDP – Ministry of Finance	<a href="mailto:walidsa@finance.gov.lb">walidsa@finance.gov.lb</a>	70-249672
7	Pierre El Khoury	Lebanese Center for Energy Conservation	<a href="mailto:pierre.khoury@lcecp.org.lb">pierre.khoury@lcecp.org.lb</a>	03-427283
8	Charbel Mansour	Lebanese American University	<a href="mailto:charbel.mansour@lau.edu.lb">charbel.mansour@lau.edu.lb</a>	70-645649
9	Chantal Akl	Ministry of Industry	<a href="mailto:chantalakl@yahoo.com">chantalakl@yahoo.com</a>	01-423338
10	Bassam Sabbagh	Ministry of Environment	<a href="mailto:b.sabbagh@moe.gov.lb">b.sabbagh@moe.gov.lb</a>	01-976555
11	Yara Daou	UNDP-Ministry of Environment	<a href="mailto:y.daou@moe.gov.lb">y.daou@moe.gov.lb</a>	01-976555
12	Bernard Ammoun	Green Arms	<a href="mailto:bammoun@rationalfinancial.com">bammoun@rationalfinancial.com</a>	70-850525
13	Hassan Harajli	UNDP-CEDRO	<a href="mailto:Hassan.harajli@undp-lebprojects.org">Hassan.harajli@undp-lebprojects.org</a>	01-981944



### Annex 3. NAMA submission forms

**REQUIRED INFORMATION BY THE NATIONAL COORDINATING AUTHORITY –  
MINISTRY OF ENVIRONMENT  
FOR  
NATIONALLY APPROPRIATE MITIGATION ACTIONS REQUESTING SUPPORT FOR  
PREPARATION**

#### A. General Information

**Title of the NAMA:**

---

**Date of submission:**

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**Name of entity(ies) submitting the project:**

---

**Role of entity(ies) in the submitted project:**

*Describe the expected role and task of each entity in the proposed NAMA- please indicate the managing entity*

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**Signature and stamp of the entity(ies):**

*Confirmation on willingness to take the above described responsibilities*

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**Date(s) of signature(s):**

---

**Organisational Category of each entity**

*Please provide the type of organization as well as contact details of all entities participating in the NAMA (use as many as required to match the total number of entities – a separate sheet can be used if needed).*

- a. Public Sector
  - b. Municipality – Local Administration
  - c. Private Sector
  - d. Not-for-profit Non-Governmental Organisation
  - e. Other, please specify: \_\_\_\_\_
-

Contact Person(s)  
Full Address

Telephone/fax  
Email:

## B. Description

### 1. Description of the Mitigation Action

*Describe the contents of the proposed mitigation actions/measures relevant to GHG emission reduction*

---

### 2. Coverage

- a. **Sector** (*which sector the NAMA belongs to*):
- b. **GHG** (indicate which GHG(s) will be reduced):
- c. **Reduction** (indicate amount of GHG expected to reduce in CO<sub>2</sub>eq.):
- d. **Type and location of Beneficiaries**:
- e. **Number of Beneficiaries**:

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### 3. Implementation Schedule

- a. **Current status** (latest progress – e.g., feasibility study completed, etc.):
- b. **Expected Start date** (technical implementation of NAMA):
- c. **Duration of the project**(number of months for completion):

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### 4. Technology/measure

*Describe in detail the technology or measure to be introduced by the NAMA (use a separate sheet if needed)*

## 5. Location/site

*Indicate the exact address, if applicable. Otherwise, name of municipality, city, village, geographical coordinates, etc. where the NAMA will take place. (Attach a map)*

---

## 6. Beneficiary(ies)<sup>3</sup>

*Indicate whether there is buy-in from the targeted sector (relevant government agency, industries, etc., where the NAMA will be implemented) **Has (have) the beneficiary(ies) been contacted:***

- a. Yes (attach letter of confirmation on willingness to participate)**
- b. No**

---

## 7. Expected cost of Preparation:

*Describe the expected cost required for the formulation of the NAMA (feasibility study, technical design, establishment of monitoring plan, etc.)*

### **a. Amount co-shared for preparation:**

*Indicate any amount already secured for the preparation of the NAMA*

### **b. Amount requested for preparation:**

*Indicate the amount to be requested as financial support*

---

## 8. Financing sources:

*Describe any identified financing sources (partial or otherwise) for the NAMA (including the amount specified in section 7.a above) In case of any government funding already allocated (or planned to be allocated) kindly provide proof.*

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<sup>3</sup> This might include ministries, local governments, key stakeholders, etc.

## C. Information on Support Requested

**Indicate what type of support are needed for the preparation of the proposed NAMA:**

*Use as many options as applicable*

**Support required for Preparation:**

- 1. Amount of Financial support requested:**
- 2. Technical** (*e.g., feasibility study, provision of information on technology, financial analysis, etc.*):
- 3. Capacity Building<sup>4</sup>:** (*e.g., capacity building on available technology, establishment of MRV procedure and system, etc.*):
- 4. Other, Specify:**
- 5. Financial support – Type and Source:** *indicate what type of financing is being sought (loan, concessional loan, debt swap, grant, equity, foreign direct investment, etc.)<sup>5</sup>*
- 6. Describe the fund disbursement arrangements:** Indicate the institutional arrangements (i.e., who will receive the funds) and how will the funds be disbursed:

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<sup>4</sup> It is mandatory for all NAMA proposals to include an institutional capacity building component on the national MRV system and the . The financial support for the MRV component (for both NAMA types – i.e., seeking support for preparation and seeking support for implementation) – an amount of USD 150,000 to 200,000 per NAMA for MRV should be added as a grant to the Ministry of Environment to sustain the institutional requirements for MRV throughout the lifetime of the NAMA project

<sup>5</sup>

## D. Other Information

**Stakeholder consultation:**

*Describe the stakeholder consultation process that is envisaged to be undertaken. Be as specific as possible, with information on potential stakeholders, and approximate date(s) provided.*

## E. Contact Information

**NAMA National Coordinating Authority:**

**Organization:** Ministry of Environment

**Service:** Environmental Technology

**Department:** Air Quality

**Contact Person:** Ms. Rola El-Sheikh

**Title:** Head of Service

**Phone:** +961-1-976555 ext. 434

**Email:** [climatechange@moe.gov.lb](mailto:climatechange@moe.gov.lb)

REQUIRED INFORMATION BY THE NATIONAL COORDINATING AUTHORITY –  
MINISTRY OF ENVIRONMENT

FOR  
NATIONALLY APPROPRIATE MITIGATION ACTIONS REQUESTING SUPPORT FOR  
IMPLEMENTATION

**A. General Information**

**Title of the NAMA:**

---

**Date of submission:**

---

**Name of entity(ies) submitting the project:**

---

**Role of entity(ies) in the submitted project:**

*Describe the expected role and task of each entity in the proposed NAMA – please indicate the managing entity*

---

**Signature of the entity(ies):**

*Confirmation on willingness to take the above described responsibilities*

---

**Date(s) of signature(s):**

---

**Organisational Category of each entity**

*Please provide the type of organization as well as contact details of all entities participating in the NAMA (use as many as required to match the total number of entities).*

- f. Public Sector
  - g. Municipality – Local Administration
  - h. Private Sector
  - i. Not-for-profit Non-Governmental Organisation
  - j. Other, please specify: \_\_\_\_\_
-

**Contact Person(s):**

**Full Address:**

**Telephone/fax:**

**Email:**

## B. Description

### 1. Description of the Mitigation Action

*Describe the contents of the proposed mitigation actions/measures relevant to GHG emission reduction*

---

### 2. Coverage

a. **Sector** (*which sector the NAMA belongs to*):

b. **GHG** (*indicate which GHG(s) will be reduced*):

c. **Reduction** (*indicate amount of GHG expected to reduce in CO<sub>2</sub>eq.*):

d. **Type and location of Beneficiaries:**

e. **Number of Beneficiaries:**

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### 3. Implementation Schedule

a. **Current status** (*latest progress – e.g., feasibility study completed, etc.*):

b. **Expected Start date** (*technical implementation of NAMA*):

c. **Duration of the project:**

---

### 4. Technology/measure

*Describe in detail the technology or measure to be introduced by the NAMA (use a separate sheet if needed)*

---

**5. Location/site**

*Indicate the exact address, if applicable. Otherwise, name of municipality, city, village, geographical coordinates, etc. where the NAMA will take place. (Attach a map)*

---

**6. Beneficiary(ies)<sup>6</sup>**

*Indicate whether there is buy-in from the targeted sector (relevant government agency, industries, etc., where the NAMA will be implemented)*

**Has (have) the beneficiary(ies) been contacted:**

- a. Yes (attach letter of confirmation/ willingness to participate)(see checklist)**
- b. No**

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**7. Expected cost of Implementation:**

*Describe the expected cost required for the implementation of the NAMA (equipment purchase, O&M, etc.)*

**a. Amount co-shared for implementation:**

*Indicate any amount already secured for the implementation of the NAMA, including the source (national government and otherwise) – if so please provide proof.*

**b. Amount requested for implementation:**

*Indicate the amount to be requested as financial support*

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<sup>6</sup> This might include ministries, local governments, etc.



## C. Information on Support Requested

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### 1. Indicate what type of support are needed for the completion of the proposed NAMA:

*Use as many options as applicable*

#### Support required for Implementation:

##### a. Amount of Financial support requested:

##### b. Technical (*e.g., provision of equipment/ technology, etc.*):

##### c. Capacity Building: (*e.g., capacity building/development of human resources for sustainable operation, MRV component, etc.*):

##### d. Other, Specify:

##### e. Financial – Type and Source: *Describe the type of financing that is being sought (loan, concessional loan, debt swap, grant, equity, foreign direct investment, etc.)*

##### f. Describe the fund disbursement arrangements: Indicate the institutional arrangements (i.e., who will receive the funds) and how will the funds be disbursed:

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### 2. Financial Analysis:

*Results of financial analysis of the proposed NAMA using indicators such as Investment Profitability Analysis (Simple Rate of Return /pay-back period); Discounted Cash-Flow (internal rate of return/net present value); and Return on Investment Analysis (Liquidity analysis/Capital structure analysis); etc. Please attach the complete report (see checklist).*

## D. Expected GHG Emission Reductions

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### 1. Indicate the expected GHG emission reduction potential of the proposed NAMA:

*Indicate the GHG emission reduction estimations on tonnes of CO<sub>2eq</sub>. If the emission reduction is from non-CO<sub>2</sub> gases, such as CH<sub>4</sub> and N<sub>2</sub>O, kindly convert into CO<sub>2eq</sub> using the IPCC SAR 100-year GWPs<sup>7</sup>.*

a. Annual reduction in tCO<sub>2eq</sub>:

b. Total reduction in tCO<sub>2eq</sub> over the lifetime of the NAMA:

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### 2. Methodologies:

*Indicate the methodology(ies) used for the GHG emission reduction estimation (see annex A).*

*In case of any deviation from the methodologies described in Annex A, provide in a separate report (see checklist) a clear description of any modification and the reason/justification for such a deviation.*

*In case where a new methodology is developed, a full description in a separate report (see checklist) is needed with assumptions and justifications. Calculation steps, including used equations, and detailed sources of data should also be provided.*

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### 3. Calculation of emission reduction:

*Describe briefly the methodology(ies) applied as indicated above.*

*Use as many data/parameter as applicable*

#### 3.1 Data/parameter:

3.1.1 Unit: tCO<sub>2eq</sub>.

3.1.2 Description:

3.1.3 Source of data:

3.1.4 Value applied:

3.1.5 Any additional comment:

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<sup>7</sup>[http://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/ch2s2-10-2.html#table-2-14](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html#table-2-14)

**3.2 Data/parameter:**

**3.2.1 Unit:**

**3.2.2 Description:**

**3.2.3 Source of data:**

**3.2.4 Value applied:**

**3.2.5 Any additional comment:**

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**4. Baseline scenario:**

*Describe what would be the situation in the future if the proposed NAMA does not take place, e.g., the current situation will continue (no new technology will be installed or no improvement/efficiency achieved) due to financial/technical/institutional constraints.*

*Use a separate report(see checklist) for the baselinescenario.*

**Sources, amount and type of GHG emissions in the baseline scenario:**

## E. Measurement, Reporting and Verification (MRV)

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### 1. Monitoring Plan and Structure:

*Describe the overall MRV plan and the structure for the proposed NAMA.*

*Include the organizational chart, institutions, personnel/departments responsible for monitoring and reporting each activity.*

*A separate report (see checklist) for the MRV arrangements will have to be submitted.*

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### 2. Monitoring plan

#### **Data and parameters to be monitored:**

*Specify the indicator that will be monitored throughout the implementation of the proposed NAMA; this will serve to account for the GHG emission reduction achieved by the NAMA.*

*Use as many as applicable.*

#### **2.1. Indicator:**

**2.1.1. Unit:**

**2.1.2. Description:**

**2.1.3. Source of data:**

**2.1.4. Means of verification:**

**2.1.5. Monitoring frequency:**

**2.1.6. Responsible Party:**

**2.1.7. Any additional comment:**

**2.2. Indicator:**

**2.2.1. Unit:**

**2.2.2. Description:**

**2.2.3. Source of data:**

**2.2.4. Means of verification:**

**2.2.5. Monitoring frequency:**

**2.2.6. Responsible party :**

**2.2.7. Any additional comment:**

## **E. Other Information**

### **1. Contribution to Sustainable Development**

**Indicate how the proposed NAMA will contribute to sustainable development.**

*For analyzing and scoring the contribution to sustainable development of the proposed NAMA, the **multi-attribute utility theory (MAUT)** analysis approach can be used.*

*For sustainable development criteria and weights, please *refer to Annex B*.*

*Other standardized methods/approaches can also be used, however, a detailed count of the methodology is required in the report.*

*A separate report (see checklist) for the Contribution to Sustainable Development will have to be submitted.*

**a. Description:**

**b. Score (see Annex B):**

## 2. Stakeholder consultation:

*Describe the stakeholder consultation process that took place during the preparation phase.*

*Use a separate report (see checklist) for the Stakeholder Consultation process.*

## F. Contact Information

### NAMA National Coordinating Authority:

**Organization:** Ministry of Environment

**Service:** Environmental Technology

**Department:** Air Quality

**Contact Person:** Ms. Rola El-Sheikh

**Title:** Head of Service

**Phone:** +961-1-976555 ext. 434

**Email:** [climatechange@moe.gov.lb](mailto:climatechange@moe.gov.lb)

## G. Checklist

### Checklist:

**In addition to the current form ("Required Information by the National Coordinating Authority – Ministry of Environment for Nationally Appropriate Mitigation Actions Requesting Support for Implementation), the following documents should be attached:**

- |   |                          |
|---|--------------------------|
| 1. Letter of Confirmation (Willingness) from the Beneficiary(ies) (Section B, page 3) | <input type="checkbox"/> |
| 2. Financial Analysis Report (Section C, page 4)                                      | <input type="checkbox"/> |
| 3. GHG Emission Reduction Estimation – Methodology Report (Section D, page 5)         | <input type="checkbox"/> |
| 4. Baseline Scenario Report (Section D, page 6)                                       | <input type="checkbox"/> |
| 5. MRV Arrangements Report (Section E, page 7)  | <input type="checkbox"/> |
| 6. Contribution to Sustainable Development Report (Section F, page 9)                 | <input type="checkbox"/> |
| 7. Stakeholder Consultation Report (Section F, page 9)                                | <input type="checkbox"/> |
| 8. Environmental Impact Assessment report submitted and approved by MoE <sup>8</sup>  | <input type="checkbox"/> |

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<sup>8</sup> For projects that require environmental impact assessment – check MoE for requirements

## Annex A: Methodologies for GHG emission reduction estimation

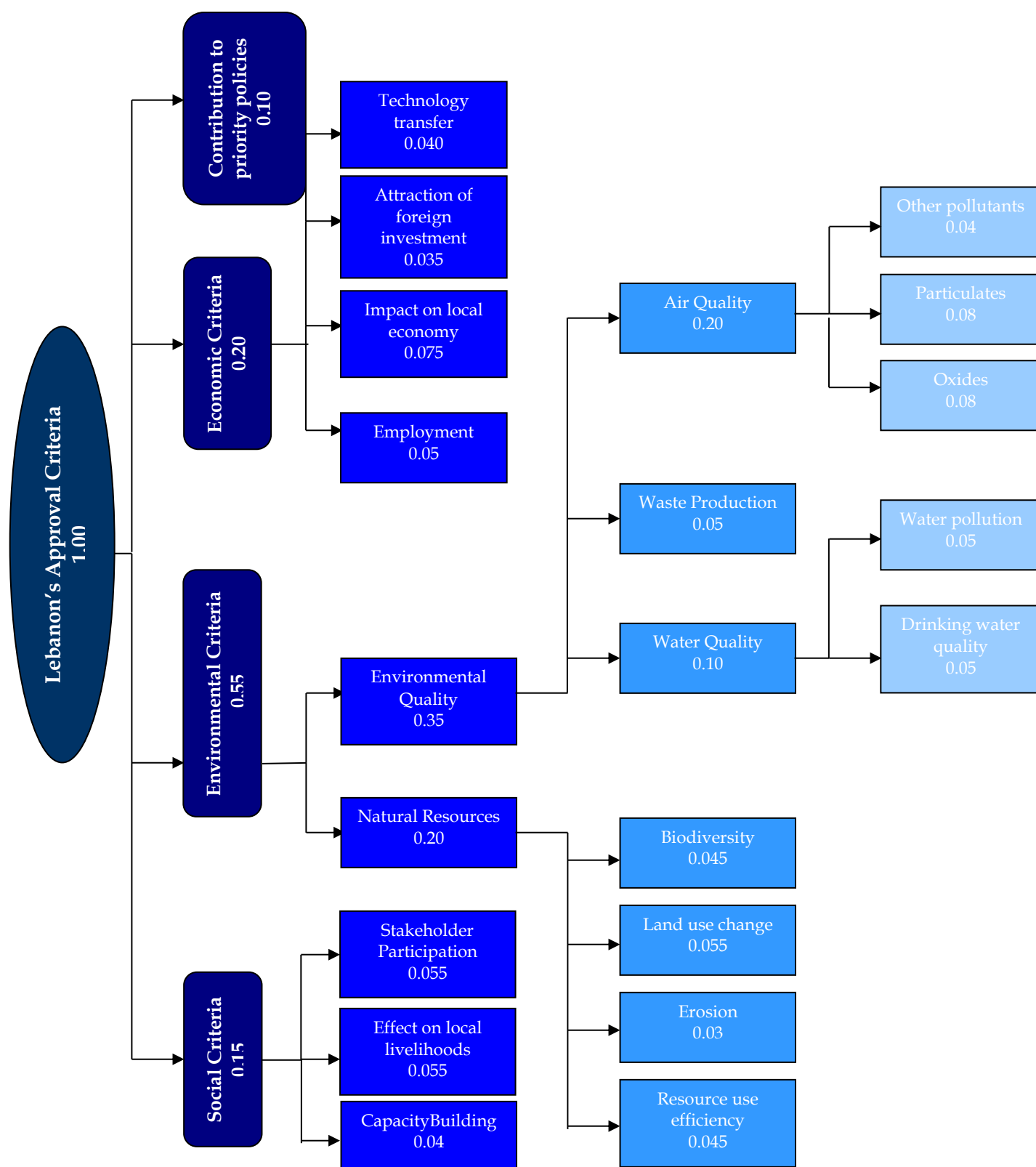
Methodology	Sectors	Reference link
<b>CDM</b>	<ul style="list-style-type: none"> <li>- Energy industries</li> <li>- Energy distribution</li> <li>- Energy demand</li> <li>- Manufacturing industries</li> <li>- Chemical industries</li> <li>- Construction</li> <li>- Mining/mineral production</li> <li>- Metal production</li> <li>- Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride</li> <li>- Solvent use</li> <li>- Waste handling and disposal</li> <li>- Afforestation and reforestation</li> <li>- Agriculture</li> </ul>	<a href="http://cdm.unfccc.int/methodologies/index.html">http://cdm.unfccc.int/methodologies/index.html</a>
<b>IPCC revised 1996 guidelines</b>	<ul style="list-style-type: none"> <li>- Energy</li> <li>- Industrial processes</li> <li>- Agriculture</li> <li>- Land use, land use Change and forestry</li> <li>- Solvent and other product use</li> <li>- Waste</li> </ul>	<a href="http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html">http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html</a>
<b>UNEP</b>	<ul style="list-style-type: none"> <li>- Transport (mobile fuel combustion)</li> <li>- Stationary fuel combustion (e.g., electricity consumption in buildings, heating, hot water and cooking)</li> <li>- Fugitive emissions (e.g., leakage of GHG from refrigeration and air-conditioning equipment)</li> </ul>	<a href="http://www.unemg.org/Resources/UnitedNationsGreenhouseGasCalculator/tabid/102178/Default.aspx">http://www.unemg.org/Resources/UnitedNationsGreenhouseGasCalculator/tabid/102178/Default.aspx</a>
<b>IFC Carbon Emissions Estimator</b>	<ul style="list-style-type: none"> <li>- Fuel consumption</li> <li>- Refrigeration/Air conditioning</li> <li>- Waste</li> </ul>	<a href="http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Policies+and+Tools/GHG_Accounting">http://www1.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Policies+and+Tools/GHG_Accounting</a>

<b>Tool</b>	<ul style="list-style-type: none"> <li>- Wastewater</li> <li>- Gas flaring</li> <li>- Electricity</li> <li>- Cement</li> <li>- Metal industry</li> <li>- Geothermal gases</li> <li>- Reservoirs and dams</li> <li>- Forestry</li> <li>- Land use</li> <li>- Livestock</li> <li>- Chemicals</li> <li>- Glass production</li> <li>- Lime production</li> <li>- Oil and mining</li> <li>- Process inputs and materials used</li> <li>- Landfill gas capture</li> <li>- Manure Management</li> </ul>	
<b>World Bank</b>	<ul style="list-style-type: none"> <li>- Energy (including transport)</li> <li>- Industry and infrastructure</li> <li>- Land use (forestry, soil conservation, watershed management, etc.)</li> </ul>	<a href="http://documents.worldbank.org/curated/en/1998/09/1976183/gr/eenhouse-gas-assessment-handbook-practical-guidance-document-assessment-project-level-greenhouse-gas-emissions">http://documents.worldbank.org/curated/en/1998/09/1976183/gr/eenhouse-gas-assessment-handbook-practical-guidance-document-assessment-project-level-greenhouse-gas-emissions</a>
<b>OECD-IEA</b>	<ul style="list-style-type: none"> <li>- Energy (Electric power sector)</li> </ul>	<a href="http://www.oecd.org/env/cc/documentsonelectricityandclimatechange.htm">http://www.oecd.org/env/cc/documentsonelectricityandclimatechange.htm</a>
<b>ADB</b>	<ul style="list-style-type: none"> <li>- Energy</li> <li>- Transport</li> </ul>	<a href="http://www.adb.org/publications/transport-and-carbon-dioxide-emissions-forecasts-options-analysis-and-evaluation">http://www.adb.org/publications/transport-and-carbon-dioxide-emissions-forecasts-options-analysis-and-evaluation</a>
<b>GEF</b>	<ul style="list-style-type: none"> <li>- Energy (energy efficiency and renewable energy)</li> </ul>	<a href="http://www.thegef.org/gef/node/313">http://www.thegef.org/gef/node/313</a>
<b>JICA</b>	<ul style="list-style-type: none"> <li>- Forestry and natural resources (afforestation, forest conservation)</li> <li>- Transport (MRT, BRT)</li> <li>- Energy efficiency in industrial facilities</li> <li>- Energy (fuel switch, improved efficiency in power generation facilities)</li> <li>- Renewable Energy (wind, biomass)</li> </ul>	<a href="http://www.jica.go.jp/english/our_work/climate_change/mitigation.html">http://www.jica.go.jp/english/our_work/climate_change/mitigation.html</a>





	- Sewage and urban hygiene	
<b>JBIC</b>	- Energy (thermal power generation, electric power generation, thermal energy supply from biomass residue, and waste heat recovery and use) - Energy efficiency	<a href="http://www.jbic.go.jp/en/about/environment/j-mrv/">http://www.jbic.go.jp/en/about/environment/j-mrv/</a>
<b>WRI-WBCSD</b>	- Industry (cement, iron and steel, pulp and paper) - Office-based and service sectors	<a href="http://www.ghgprotocol.org/calculation-tools">http://www.ghgprotocol.org/calculation-tools</a>
<b>Gold Standard</b>	- Energy - Energy efficiency - Transport	<a href="http://www.cdmgoldstandard.org/project-certification/gs-methodologies">http://www.cdmgoldstandard.org/project-certification/gs-methodologies</a>
<b>CCB Standards</b>	- Forestry (afforestation and reforestation, sustainable forest management, forest recovery)	<a href="http://www.climate-standards.org/ccb-standards/">http://www.climate-standards.org/ccb-standards/</a>
<b>CCAR</b>	- Local government operations - Power/utility - Cement	<a href="http://www.climateregistry.org/tools.html">http://www.climateregistry.org/tools.html</a>

## Annex B: sustainable development criteria and their respective weights






## Annex 4. MRV Presentation



# **NAMA Design and Preparation: Prioritising NAMAs for Lebanon and General MRV Considerations**

**Ministry of Environment**  
**The United Nations Development Programme**





# **General MRV Considerations**



## *Background on MRVs: From where do they come from?*

MRV originates from the international climate negotiations:

**COP13, Bali 2007:** *decision to enhance mitigation actions “...NAMAs by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner.”*

Cancun Agreements (§62-64), Durban Outcomes (§37)

BUR guidelines

§ 2 f) scope of BUR

§ 13 mitigation actions

ICA modalities and guidelines

3 (a) information considered in the technical analysis

## Why the involvement of the Ministry of Environment?

### Measuring

Under the Convention, measuring has historically referred specifically to the conduct of national greenhouse gas (GHG) inventories, which are reported in National Communications and Biennial Update Reports submitted to the UNFCCC. During the Cancun and Durban negotiations, the Conference of Parties (COP) decided that “enhanced” GHG inventories must be conducted every four years for developing countries. Effects and progress of specific NAMAs will also undergo measurement.

### Reporting

There are two types of reporting specified under the Convention: National Communications and Biennial Update Reports (BURs). Reporting expectations were elaborated in the Cancun Agreements and finalized in Durban. Non-Annex I countries, or developing countries, are required to report their climate change mitigation actions in National Communications, which should be submitted every four years. In addition to national GHG inventories, this report includes mitigation actions and their effects, and support received. BURs provide an update to the information presented in National Communications and include information on mitigation actions, needs and support received. NAMAs can be voluntarily reported, but are not mandated, in both of these mechanisms. The COP-17 in Durban decided that non-Annex I countries should submit BURs every two years, beginning in December 2014, and include GHG inventories conducted within four years of submission.

### Verification

International Consultation and Analysis (ICA) of BURs is the mechanism used to verify mitigation actions, outcomes and support. It is emphasized that the ICA process “should be non-intrusive, non-punitive and respectful of national sovereignty”. It is intended to increase transparency of mitigation actions and their effects. The first round of the ICA is set to begin within six months of the submission of the first round of BURs. Although the modalities and guidelines of the ICA have been adopted, the composition and procedures for the team of technical experts for the ICA has yet to be decided.

### MRV metrics

#### 1) GHG emissions

**GHG reductions** are measured relative to a business-as-usual baseline that reflects assumptions, such as GDP and population growth, that could alter the trajectory of emission generation. As these assumptions change, the baseline should be adjusted accordingly to facilitate more accurate measurements. Although MRV of emissions reductions is mandatory, it is important to minimize reporting burdens on developing countries so that MRV does not deter NAMA development.

#### 2) Actions and progress

**Action** metrics indicate that NAMAs are being implemented, such as establishing renewable energy portfolio standards or building waste treatment facilities. **Progress** metrics indicate the results of implemented actions, such as an increase in the renewable share of a nation's power sales or tons of waste treated. Many of these metrics may already be necessary to measure GHG emissions, and if compared to historic data, can help assess the effectiveness of actions.

#### 3) Sustainable development

**Sustainable development** metrics highlight the impact of actions on economic development, the environment, and public welfare. Examples include increased energy security, reduction of ground and surface water pollution, and reduced cost of power and transportation. By addressing citizens' concern, they are critical to harnessing domestic political support and securing funding from contributing countries that are interested in both stabilizing atmospheric concentrations of GHGs and promoting sustainable development.

## MRV Scope

- GHG emission levels (National Inventories)
- Mitigation actions (NAMAs, NMM, FVA, CDM/JI)
  - GHG emission reductions
  - Co-benefits and negative impacts
  - Additional parameters to manage and track progress of the mitigation action
- Support measures (finance, capacity building, technology transfer; from a donor and receiver perspective)
  - Volume/level of support
  - Specific use of support
  - Effectiveness of support

## HOW

Guiding design principles:

- Completeness
- Comparability
- Transparency
- Consistency
- Accuracy

## WHY

- Facilitate decision making
- Build trust through credible and transparent information
- Track performance and effectiveness
- Support mitigation actions and feedback for policymakers
- Access international support

## WHO

# MRV

## WHAT

- NAMA agency
- NAMA participants from private and/or public sector
- National/regional governments
- Verification entities
- Donors

- MRV of NAMA actions and results
  - GHG mitigation
  - co-benefits and potential negative impacts
  - transformational changes
  - operational data
- MRV of support and financing

## Monitoring

## Reporting

## Verification

- Indicators for GHG reduction, co-benefits/negative impacts and other relevant operational aspects
- Approaches & assumptions for calculation of indicators
- Parameters needed for calculation of indicators
- Measurement and data collection methods for identified parameters
- Frequency of measurement
- Data sources and data collection processes
- Quality assurance on data
- Roles and responsibilities of individual entities involved in the monitoring process

### Key considerations:

- Compatibility of targets/pledges, baseline scenarios and MRV systems
- Capacity of involved entities to carry out monitoring activities
- Complexity of system and resulting transaction costs
- Conservativeness of monitoring approach & credibility of system
- Usefulness of monitoring system for NAMA implementation entities
- Data availability and data confidentiality concerns

## Monitoring

## Reporting

## Verification

- Whom to report to
- Level of aggregation
- Reporting content (results by indicator, raw data?, calculation assumptions?, quality assurance information?)
- Reporting format
- Reporting period and frequency
- Reporting process
- Roles and responsibilities of individual entities for report compilation and review

### Key considerations:

- Level of detail and transparency of reporting
- Publication of report
- Data confidentiality
- Verifiability of the report



## Monitoring

## Reporting

## Verification

- Which information to verify
- Verification approach (1st, 2nd or 3rd party verification)
- Verification process and frequency
- Verification findings and recommendations for next MRV cycle

### Key considerations:

- Purpose and need for verification
- Independency, credibility and transparency of verification approach
- Level of influence of verification system
- Qualification requirements for verifiers
- Structure for assessment and coordination of verifiers (accreditation system to ensure robustness of system)?
- Transaction costs of verification

# Overview of existing MRV standards

## GHG Standards

- IPCC
- CDM/JI
- GHG Protocol
- ISO 14064/14065
- EU ETS
- Verified Carbon Standard (VCS)
- Climate Action Reserve (CAR)
- Carbon Farming Initiative (CFI)

## Co-benefits Standards

- Gold Standard
- Social Carbon
- Climate, Community & Biodiversity
- Women's Carbon Standard
- GRI

## Broader M&E Standards

- GEF
- GIZ BOW
- OECD DAC
- ISAE 3000

## MRV metrics

Financial Metrics

Technical Metrics

Process Metrics

Quantitative  
Metrics

Qualitative  
Metrics

## *Background on MRVs: where are they going?*

**SBSTA 10 (b)** 'General guidelines for domestic measurement, reporting and verification of domestically supported nationally appropriate mitigation actions by developing country Parties'

“the guidelines are to be general, voluntary, pragmatic, non-prescriptive, non-intrusive and country driven, take into account national circumstances and national priorities, respect the diversity of nationally appropriate mitigation actions (NAMAs), build on existing domestic systems and capacities, recognize existing domestic measurement, reporting and verification systems and promote a cost-effective approach”

## *Concluding thoughts*

1. Completeness
  2. Comparability
  3. Transparency
  4. Consistency
  5. Accuracy
- are important principles for MRV of NAMAs.

## ANNEX 5. Photos from the workshop



