Considerations about the synergies and challenges of integrating MRV of mitigation and M&E of adaptation

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International Partnership on Mitigation and MRV

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Outline

• What is MRV of Mitigation?
• What is M&E of Adaptation?
• Where could an integrated MRV approach lead to synergies? Where could be limits for integration?
• Conclusion
1. What is MRV of mitigation?

- Measuring, reporting and verification (MRV) of emissions (GHG-inventory), of mitigation and of support

**Purpose**

- Show development of GHG emissions at national level over time
  - Learning,
  - Transparency, Comparability
- Allow prioritizing of sectors, sources or gases for mitigation action
2. What is Adaptation M&E?

- Monitoring and Evaluation (M&E) of adaptation supports keeping track of the implementation of adaptation plans and actions and assessing their effectiveness and outcomes.
- Adaptation M&E can focus on the **process** of adaptation as well as on its **outcomes**.
- We speak of M&E (and not of MRV) because of the different nature of adaptation:
  - Very context specific (geography, sector, ecosystem, climate)
  - No universal metric available (such as reduction of GHG emissions)
  - Paris agreement emphasizes adaptation is a country-driven process, less need for “verification”
Why adaptation M&E?

- Adaptation M&E can support the ongoing management of adaptation interventions by assessing progress and pointing out needs for adjustments.
- Adaptation M&E can also support learning and exchange about what works well and what does not, thereby helping to improve adaptation actions.
- Adaptation M&E can also provide accountability by demonstrating and reporting on results.
3. Where could an integrated MRV approach lead to synergies? Where could be limits for integration?

New topic – only first thoughts:

5 Levels of Analysis:

- Data, Indicators
- Collection of Information/Data
- MRV/M&E of Actions/Measures
- Reporting
- Institutional Arrangements
3.1 Level of Indicators/Data

Could the same data or information be used for monitoring of both mitigation and adaptation?

Mitigation:  

Adaptation:
Data/information for mitigation and emissions:

**Emissions = Activity Data x Emissions Factor**

Key elements to consider:

- **Activity Data:** Sources: surveys, national statistics, proxy data, bottom up data

- **Emission Factors:** Sources: international defaults, country-specific factors, use of data from other countries with similar national circumstances.

- **Use of IPCC Guidelines, Good Practice Guidance, Emission Factors Database**

- **Tiered approach to emission estimation:**
  - Tier 1 (International default factors)
  - Tier 2 (National default factors)
  - Tier 3 (Country-specific methods, more complex models)
3.1 Level of Indicators/Data

Could the same data or information be used for monitoring of both mitigation and adaptation?

Mitigation:
- Emissions level:
  Emissions factor * activity data
  e.g. electricity mix, livestock, forest cover, forest type
- Mitigation actions

Adaptation:
- Climate parameters: e.g. change in annual precipitation
- Climate impacts and vulnerability: e.g. percentage of total livestock killed by drought
- Adaptation results: e.g. percentage of households at reduced flood risk due to construction of new or enhanced defences
- Adaptation actions: Percentage of trade and industry chambers using and distributing climate information

➢ Rather limited synergies.

Source: Repository of Adaptation Indicators
3.2 Level of data collection

Could some data be collected together, e.g. by the same entity?

Mitigation

- Sources of information: rather national level:
  
  Statistical offices, sector ministries, companies, industrial operators, trade associations, Government department, research institutes.

- Main sectors: Energy, AFOLU

➢ Sectors with highest synergy: Agriculture sector & Forestry sector (AFOLU)
➢ Rather different sources and actors

Adaptation

- Sources of information at various scales: meteorological services, ..

- Main sectors: water, agriculture, infrastructure, health, ecosystems…
3.3 Level of MRV/M&E of actions

- Could there be synergies from an integrated monitoring and reporting of actions of mitigation and adaptation?
  - Both monitor status of implementation, co-benefits; common registry for measures?
  - Since data content and analysis are rather different, there are few opportunities for M&E synergies.
  - Joint reporting can, however, increase awareness for both topics.
- How to deal with actions with benefits for both:
  - Projects typically have results-based monitoring systems with indicators that could cover both mitigation and adaptation benefits.
  - Example: climate smart agriculture
MRV of mitigation: Country example - Lebanon

- Summary of measures developed and implemented during 2005-2012 with information on estimated $tCO_2_{eq}$ abatement as well as expected $tCO_2_{eq}$ reduction per year.

- Annex with detailed sectoral information (objectives and goals, coverage, budget, GHG reduction potential, etc) for each mitigation action.

- The list is not exhaustive and Lebanon plans to enhance qualitative and quantitative assessment by setting up its MRV system.

### Table 16: Summary of mitigation activities in Lebanon for the period 2005-2012

<table>
<thead>
<tr>
<th>Sector</th>
<th>Activity</th>
<th>Achieved outcome</th>
<th>Estimated reduction of GHG emissions ($tCO_2_{eq}$)</th>
<th>Yearly emission reduction ($tCO_2_{eq}$/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Installation of PV</td>
<td>Total of 1,936 kWP of capacity installed, Annual savings of 2,877.12 MWh</td>
<td>5,046 for the period 2010-2012</td>
<td>1,682</td>
</tr>
<tr>
<td>Energy</td>
<td>Installation of Solar Water Heaters (SWH)</td>
<td>Total of 126,000 liters, 1,800m² installed</td>
<td>7,960 for the period 2005-2012</td>
<td>995</td>
</tr>
<tr>
<td>Energy</td>
<td>Light Emitting Diode (LED) street lighting</td>
<td>Annual savings of 10,965 MWh</td>
<td>7,434 for 2012</td>
<td>7,434</td>
</tr>
<tr>
<td>LULUCF</td>
<td>Forest fire management</td>
<td>50% of forest fires suppressed between 2009-2012, 40% of forest fires suppressed between 2010-2012, 20% of forest fires suppressed in 2012</td>
<td>786,450 for the period 2005-2012</td>
<td>98,306.25</td>
</tr>
</tbody>
</table>

Total known GHG emissions reduced during 2005-2012: 1,084,829

Yearly GHG emissions expected from sustaining the implementation of these activities: 226,710

3.4 Further levels of analysis:

- Reporting: check if there are synergies in terms of reporting outputs (NC, BURs, …)

- Institutional arrangements:
  - Access to data, data sharing: if same actors involved:
  - Procedures
Example South Africa

South Africa reports annually on progress made in responding to climate change.

The report covers mitigation, adaptation and climate finance.

The joint reporting ensures attention to all topics.

The report does not look at synergies in particular.
Conclusion

• New topic: only first thoughts and considerations

• If too much focused on synergy: risk of loosing effectiveness of MRV/M&E
  • Data needs and indicators rather different
  • In view of different actors involved in mitigation & adaptation: integrated data collection/reporting will encounter institutional complexity--> risk of affecting effectiveness
  • Opportunities with benefits for both not necessarily the most effective ones: net effect of investing in synergetic activities/monitoring might be smaller than investing in separate activities.

• Recommendation to strengthen NAP as the process for planning adaptation.
Thank you!

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