Enabling an Evaluation Culture: A Roadmap for Building Evaluation Frameworks for National Climate Change Strategies

Julia Larkin, IDEAS for Energy, Bonn, Germany
Liviu Gheorghe, eco2ro, Ploiesti, Romania
Viorel Blujdea, Independent Consultant, Bucharest, Romania

Abstract

This paper uses lessons learned from Romania's experience and an extensive literature review to highlight opportunities and challenges for measuring and evaluating (M&E) national efforts to address climate change and low carbon growth, and is particularly relevant for middle income and former Eastern Bloc countries.

As signatories to the Kyoto Protocol and members of the European Union, countries like Romania have significant obligations to monitor, report and verify (MRV) efforts for greenhouse gas mitigation and climate change adaptation. Yet, these MRV requirements do not have a direct continuous learning or evaluation component.

Most policy-makers in middle income countries are still developing their understanding of what makes good climate change policy. A robust M&E system is essential to ensure that limited resources are used as fully, effectively and efficiently as possible, yet few countries have them.

Countries focusing only on meeting international requirements miss a critical opportunity. Countries should move beyond only monitoring indicators to develop evaluation frameworks that provide policy-makers with the means to judge whether climate policies meet the intended purposes, and to inform future efforts. Countries need practical low-cost approaches tailored to national circumstances that look downwards and upwards, where national decisions are informed by sub-national experiences and progress is shared internally and with the international community.

This paper provides a roadmap for developing climate policy M&E systems and a Romanian case study. It highlights key challenges and strategies to overcome them and outlines good practices, including the institutional capacities, roles and responsibilities needed, and stakeholder engagement strategies.

Overview of Paper

This paper targets countries shifting from focusing on only climate change monitoring and reporting requirements to a more comprehensive approach that provides critically-needed feedback through evaluation. It is especially relevant for middle income and former Eastern Bloc countries.

In contrast to monitoring, which involves collecting data over time, evaluation uses data to answer specific questions about policy implementation and effects. With a staged approach tailored to local priorities and capacities, countries can shift to receiving the full benefits of evaluation.

The paper first outlines the current state of climate policy monitoring and evaluation (M&E). Next, it summarizes good practices for national climate M&E. It follows with a Romanian case study. The paper concludes with recommendations suggesting a solid, yet flexible, evaluation framework consistent with existing European Union (EU) and United Nations Framework Convention on Climate Change (UNFCCC) principles.

Overview of Climate M&E Internationally

As public climate change expenditures increase it is essential to use these limited resources effectively and efficiently. Evaluation is instrumental to providing policy-makers a means to judge whether policies are meeting the intended purposes and provides feedback to inform future efforts.

Yet, few countries have comprehensive climate M&E strategies, much less integrated national evaluation strategies for all policy sectors. For climate policy, the monitoring systems for greenhouse gas (GHG) emission levels for national inventories are typically the most advanced, with some type of measurement and evaluation (M&E) for mitigation policies or related GHG emission reductions also relatively common (e.g. energy efficiency or renewable capacity) at varying degrees of sophistication (Wartmann et al., 2013). M&E addressing indirect emission reductions (e.g. adjusting legal frameworks) or other effects (employment or resource use impacts) are less common; addressing adaptation is still rare, with most examples only at the project level.

These systems would allow countries to determine if they are meeting emission reduction targets, but do not incorporate more comprehensive evaluation principles that would enable them to identify the most effective and resource-efficient policies (CPI, 2012). Yet, most national policy-makers in middle income countries operating with constrained resources are still developing their understanding of what makes good climate change policy.

Countries focusing only on monitoring and reporting requirements miss a critical opportunity. A robust M&E system is essential to ensure that resources are used as fully, effectively and efficiently as possible. Effective M&E increases government accountability, enhances public trust, improves stakeholder engagement, and facilitates learning. (GGBP, 2014).

Good Practices for National Climate Change M&E

This section provides an overview of good practices for national climate M&E systems, which should be one piece of a broader national M&E strategy. [1] Ultimately, each system is expected to be unique, representing the priorities and opportunities most relevant for that country.

Elements of an M&E System

The climate goals are articulated through objectives or broad policies and targets, which are met through implementation of actions (e.g. policy instruments, programmes, sectoral activities or specific projects). The evaluation framework provides a feedback loop for continuous learning. Evaluations are completed at key intervention milestones, such as formative evaluations early on to identify possible improvements and summative or impact, evaluations upon completion. Indicators document progress, facilitate reporting requirements and help engage the public, such as to legitimize policies.

Figure 1 illustrates the policy design and evaluation cycle.

1 These good practices are based upon an extensive literature review. It is beyond the scope to detail all of the evaluation strategies that could feed into a national climate policy. Interested readers should see, for example: Global Environment Facility, 2015, Good Practice Study on Principles for Indicator Development, Selection, and Use in Climate Change Adaptation, Monitoring and Evaluation; Wörlen, 2013, Guidelines to Climate Mitigation Evaluations; Stern, 2012, Broadening the Range of Designs and Methods for Impact Evaluations.

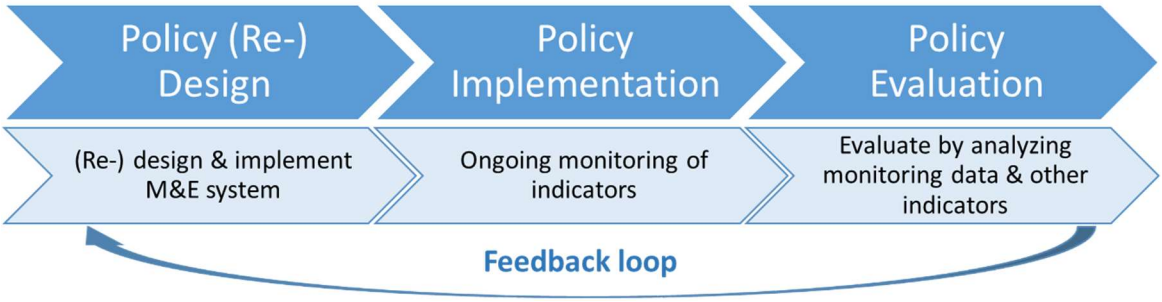

Figure 1. Policy Design, Implementation and Evaluation Cycle

At a minimum, the M&E system should capture local, regional and national conditions and responses to specific policies, integrating two concepts:

- Transparency and accountability: Document implementation status (activities/outputs) as well as what was achieved (outcomes/impacts). This facilitates reporting and aggregation, holding responsible entities accountable, and quickly identifying deviations.
- Continuous improvement: Continuous learning through systematic enquiry into what the policies have achieved facilitates understanding of successes and failures and their causal factors in order to better design and implement future strategies and action plans.

Specific evaluation approaches, indicators and verification strategies must be tailored to the national context, and be linked across different scales (international – national – subnational - local). Local and subnational M&E should feed into the national system.

Climate M&E systems should be seen as on a continuum that should evolve, expand and improve over time.[2] Even the most comprehensive systems began with modest origins, built up in stages where the breadth, rigor, detail, consistency and linkages with other systems evolve. For example, early stages may focus on minimum requirements; middle stages increase the scope, level of coordination, and apply more common methodologies; late stages address all major issues with substantial coordination amongst relevant authorities using consistent, stringent, and transparent methodologies easily compared or aggregated with data from other national systems.

Evaluation Principles

This section outlines a general process that provides a solid foundation for many types of evaluation. Barura (2014) recommends that countries like Romania use a theory-based evaluation approach for specific policies as it facilitates learning on why policies succeeded or failed and how they can be improved. Theory-based evaluation can address, for example: how to improve current implementation, transparency of decision-making, financial accountability, stakeholder engagement, intergovernmental coordination and/or replication potential (Barura, 2014).

First, the evaluator establishes a plausible theory on how a policy instrument (or a package of instruments) is expected to reach the its goals, and who is expected act at what stage; then she maps out the implementation process from initial inputs through direct and indirect impacts, including potential synergies or overlaps with other instruments (See Figure 2). This approach is

2 For more on this continuum, see Wartmann, S., Larkin, J., Eisbrenner, K. and M. Jung, Knowledge Product: Elements and Options for National MRV Systems, "International Partnership on Mitigation and MRV.

relevant for a variety of policies, including performance standards, taxes, subsidies or financing, tradable permits, voluntary agreements, research and development or infrastructure programmes.

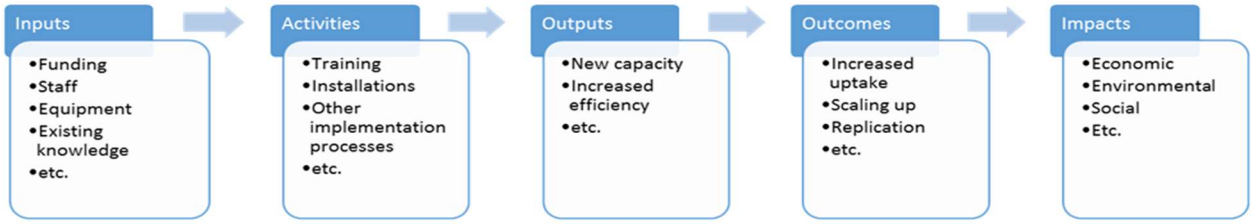

Figure 2. General Policy Input to Impacts Chain

Next, evaluation questions addressing key assumptions and evaluation priorities are developed. The EU, as well as Romania, has adopted the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria of relevance, efficiency, effectiveness, impact and sustainability, the use of which is adapted to each evaluation and which provides a categorization for the evaluation questions.[3]

This theory of change mapping would then be incorporated into a logic model with indicators for each implementation stage: inputs, processes/activities, outputs, outcomes, impacts. The key assumed cause–impact relations highlighted in the evaluation questions and tracked by the indicators are tested by evaluation techniques appropriate for that evaluation to assess whether observed effects are due to the implementation of the policy instrument or to external factors.

A monitoring plan for each indicator helps ensure that consistent approaches are used over time. The monitoring plan typically defines the overall approach, responsible parties, data sources, methods (measured, calculated or estimated), procedures and collection intervals. It should also address critical assumptions, quality assurance and control procedures and verification strategy.

Verification should involve, at a minimum, internal plausibility checks, which could be supplemented by review from disinterested but knowledgeable staff. A middle path is compliance to a national or international standard with or without verification; the most complex is third-party verification by accredited verifiers, which requires an accreditation framework implemented by a national accreditation body that typically handles other types of accreditations as well. Countries usually prioritize by assigning more stringent verification to data with the highest relevance and/or greatest risk of gaming, error or uncertainty in the beginning, expanding over time.

As the M&E system is being designed

Wartmann et al. (2013) and Barura (2014) recommend to begin elaborating the M&E system as early as possible in the policy development phase, mapping out and synchronizing timetables for finalizing the policy as well as developing the M&E system. The existing institutional resources and reporting frameworks should be reviewed to ensure that the new system builds upon existing structures to the extent feasible.

Government leaders, after consulting with stakeholders, then agree on and communicate the purpose, objectives and scope of the M&E system as well as provide a development strategy

3 The criteria were first outlined in a 1991 OECD Development Aid Committee document entitled, the DAC Principles for the Evaluation of Development Assistance.

that is appropriate for the local context that addresses minimum requirements and priorities for evaluation that facilitate continuous learning as opposed to simply tracking.

Governments should seek to develop the evaluation culture within all relevant entities and promote active learning as an integral part of the evaluation framework to realize the full potential of M&E activities and recommendations. It is recommended that comprehensive evaluations be conducted regularly, such as every 3 to 5 years, with evaluation plans developed for specific interventions, either collectively or individually as is most relevant and practical (World Bank, 2015a).

As new interventions are added, the responsible entity should illustrate how the new intervention fits within the broader climate strategy and the approach to evaluating the intervention. The scope should include developing procedures for regular review of the strategic objectives and institutional arrangements for the M&E system. The responsible coordinating authority would also help to ensure that evaluation results are channeled to highest levels of government and regional authorities as well as civil society and the public in a format most appropriate for each audience.

Institutional Arrangements

Having the appropriate institutional arrangements is critical for a smooth and efficient system. They need to be sustainable and resilient in the face of political or other shocks and address legitimacy, relevance, transparency, inclusivity, flexibility, and reliability (GGBP, 2014). Existing institutions and monitoring systems can be leveraged or adapted to maximize compatibility while minimizing double counting or unintended gaps or reinventing wheels.

Many countries find that it is most effective to have a single coordinating authority with overall responsibility for the M&E system, backed by legislation as necessary, with specific tasks delegated to specific units or entities. The responsible entity is then responsible for defining institutional structures and assigning clear roles and responsibilities, building sufficient capacity, allocating resources, and holds final accountability. This central coordinating authority can take a variety of different forms (e.g. inter-ministerial committee), as appropriate locally (GGBP, 2014).

The institution in charge of climate M&E will need to have sufficient influence, authority and capacity and must ensure adequate financial resources for the operationalization and on-going improvement and expansion of the M&E system. It also should ensure that there are adequate human resources with appropriate knowledge and skills committed to M&E activities, with a strategy for preserving institutional memory despite inevitable staff turnover.

Government staff can gain practical experience in climate issues by participating in national, EU and international processes and with other technical bodies. Also, using third parties for evaluation (including verification) helps ensure independence as well as impartiality.

Coordination and Stakeholder Engagement

The responsible coordinating entity should develop a knowledge management strategy that addresses information exchange between relevant governmental entities, research institutions, technical and evaluation communities, civil society and the public to facilitate stakeholder engagement and transparency. Also external parties (e.g. independent evaluators, or technical experts) can be engaged to help develop M&E protocols or provide training.

Engage stakeholders early and often using national and institutional networks, such as by providing them the opportunity to give feedback in written form or by organizing meetings and workshops to gather input on local priorities and/or share information on impacts of implementation of policies. To maximize effectiveness, results must be communicated regularly and the level of detail tailored to each audience group. Also, stakeholder committees can provide an important advisory, monitoring and watchdog role (Deaton, 2010).

Indicator Selection

Countries like Romania often spend significant resources to select the most appropriate indicators to support their climate M&E strategy as they seek the best balance of headline indicators to facilitate easy communication with the public compared more detailed indicator sets that facilitate tracking underlying changes as well as meeting reporting requirements (Barura, 2014).

It is important to carefully assess which indicators are most relevant for current needs, as driven by the M&E system objectives; weighing different options as needed. It can be useful to incorporate existing macro-level indicators currently used for international reporting (e.g. Sustainable Development Goals) as feasible, while recognizing that national efforts frequently take into account the local context situations more effectively than universal or international examples.

The level of effort should be proportional to the usefulness/need. Developers should carefully balance potentially competing principles (e.g. completeness and accuracy) with feasibility while prioritizing transparency and comparability and may consider cost-benefit analysis of options (Wartmann, et al. 2013).

Incorporating indicators that cover relevant economic, environmental and social objectives may help to provide a complete and integrated picture. Using common themes across international, national, and local levels allows comparison of trends and patterns. It may be possible to use the same metric at all levels, yet often indicators meaningful at the national level may not be relevant at the community level. Also there may be inconstancies in definitions across different sources or geographic levels that limit comparisons (GGBP, 2014).

Special Considerations for Adaptation

M&E for adaptation is the assessment of progress made in implementing initiatives that directly or indirectly affect the level of climate resilience. The long time horizons and uncertainty about future conditions complicate the assessment of adaptation activities. Almost all of the M&E of adaptation to date has been at the project level (Climate-Eval, 2013).

The logical framework should capture the enabling environment in which adaptation takes place. Context-specific strategies are needed to assess reduction in vulnerability in each sector affected. Also, systems should allow for recognizing unanticipated outcomes from adaptation activities and climate resilience drivers (Climate-Eval, 2013).

When developing strategies for adaptation M&E, designers can build on experiences from environmental monitoring, environmental impact assessments, cost-benefit analysis, and M&E for disaster risk reduction. Participatory processes are emerging as particularly relevant to inform on resilience priorities as there are diverse drivers of vulnerability and resilience, recognizing that climate change will affect communities, and household groups differently (Climate-Eval, 2013).

Case Study: Romania

This section provides a case study of Romania's efforts to evolve from a reporting focused system to a more comprehensive M&E system. It describes the current status and a roadmap the Romanian Government can follow to incorporate evaluation into its evolving climate strategy.

International Context

When developing its climate M&E framework, Romania is able to expand upon and integrate the existing required monitoring, reporting and verification (MRV) efforts for GHG mitigation and climate change adaptation at the EU and international treaty level.[4]

UNFCCC Requirements. Romania has committed to the following under the UNFCCC and the Kyoto Protocol:

- Emissions inventories (National GHG Inventory): current and historic emission trends
- National communications (NC): emission trends plus mitigation and adaptation efforts,
- Biennial reports (BR): progress in achieving emission reductions and financial, technology and capacity-building support provided to other countries.

All three documents are also submitted to the European Commission, which compiles information from all Member States (MSs) and reports at the EU-level to the UNFCCC.

EU-level Policy and MRV Requirements. This section only briefly summarises EU MS requirements for activities in the evolving EU climate and energy package. The 2020 package includes the EU Emissions Trading System (ETS); the Effort Sharing Decision addressing sectors not covered in the ETS, such as housing, agriculture, waste and transport; National Renewable Targets; and a legal framework to facilitate carbon capture and storage.[5]

Related EU-level legislation includes the Energy Efficiency, Energy Performance of Buildings, Energy Labelling and Ecodesign Directives. For example, the Energy Efficiency Directive requires MS to develop National Energy Efficiency Action Plans (NEEAPs) addressing estimated energy consumption, planned energy efficiency measures and expected improvements. There are complementary EU-level initiatives that address reducing F-gases, innovative technologies (e.g. Horizon 2020) and climate change adaptation strategies.

The cornerstone of the EU's M&E strategy for these policies is the EU Monitoring Mechanism Regulation (MMR) assessed through the European Semester as well as through evaluation of specific elements. The EU MMR facilitates tracking of progress towards meeting emission targets for 2013-2020 and facilitates further development of the EU climate policy mix. It also addresses low-carbon development; financial and technical support to developing countries; use of revenues from auctioning allowances in EU ETS; land use, land-use change and forestry (LULUCF); and adaptation measures.[6]

In addition, the Renewable Energy Directive requires National Renewable Energy Action Plans (NREAPs) and the Energy Efficiency Directive requires National Energy Efficiency Action

4 The new MRV requirements for the 2015 International Climate Change Agreement agreed in Paris in December 2015 are still being developed, so cannot yet be incorporated here.

5 For a more detailed comparison of UNFCCC and EU MS requirements, see for example Meyer-Ohlendorf, 2015.

6 http://ec.europa.eu/clima/policies/g-gas/monitoring

Plans (NEEAPs), both with associated monitoring of progress towards targets. The European Semester process requires National Reform Programmes (NRPs) to report on progress towards all objectives as well as any Country Specific Recommendations. Furthermore, EU MSs have other M&E or reporting requirements for specific initiatives, such as for the EU ETS.

Evaluation in the EU. In addition to MRV requirements, the EU's evaluation culture continues to deepen and evolve with increasing focus on evaluation as both a planning tool and throughout implementation, such as is reflected in requirements for Structural Funds. Each funding stream now has an associated evaluation and/or monitoring framework with tailored requirements.[7] Also, in 2015, the European Commission published Better Regulation Guidelines to cover the entire policy cycle, addressing, for example, how to conduct an impact assessment or stakeholder consultations, and providing information on methods, models and assessing costs and benefits.[8]

Evaluation is well-established in many EU MSs, such as France, Germany, the Netherlands, and the UK, though the scope, depth, methods and priorities differ widely. These countries provide examples from Romania will be able to draw. Italy also offers an important lesson learned as they initially relied on the EU framework for evaluations of Structural Funds to help build evaluation capacity in the 1990s. However, neither the general public nor the administration perceived the value initially. Agencies that adopted guidelines in only a mechanical way did not create the ownership necessary to fully benefit from evaluation. Interest and ownership increased once the process was internally driven by local needs, priorities, and capacities (Romanian Ministry of Public Finance, 2007).

Current Status of the Evaluation Culture in Romania

Romania does not yet have a comprehensive M&E system for its National Strategy on Climate Change (NSCC) and Action Plan for Climate Change (APCC), which are being developed now. Yet, it does have the foundation of a system for M&E of all public policies.[9] Each national agency that initiates public policies must have a Public Policy Unit (PPU) to advise on how to:

- Monitor implementation of the current Regulation(s)
- Link the Ministry with the PPU in the General Secretariat (GS) of the Government
- Prepare monitoring reports, in cooperation with the specialized departments.

Also, the action plan for each public policy must provide details on M&E for it.

In the past, there was little evaluation activity outside EU requirements associated with specific funding. Instead, reporting has been mostly for descriptive or conformity purposes. Overall, M&E of public policies is not yet consistently performed, and the systems for collecting data are not yet systemically organized. Reasons include the lack of specialized personnel, clearly-defined M&E methodologies, insufficient funding and/or political will (World Bank, 2015a).

In the past, independent evaluators found that Romania was not yet meeting criteria identified in the International Atlas on Evaluation, such as whether evaluation is taking place in many domains and levels (e.g. strategy, policy, programme, projects) the degree of institutionalization, sufficient capacity and supply of domestic evaluators, and information flow within government relating to evaluation (Garboan and Sandor, 2007).

---

7 See for example the EU Framework Programme Evaluation & Monitoring http://ec.europa.eu/research/evaluations
8 http://ec.europa.eu/smart-regulation/evaluation
9 The framework for M&E of public policies (PP), are in Governmental Decision (GD) 775/2005 and GD 870/2006.

An evaluation awareness campaign was conducted and a National Strategy for Evaluation (NES) was developed in 2006 under the Phare-funded Technical Assistance for Programming, Monitoring and Evaluation project.[10] Prior to development of the NES, the awareness campaign held conferences on evaluation for targeted groups focusing on the utility of evaluation, EU requirements and international evaluation experiences. The campaign also distributed a booklet highlighting good practices for evaluation with examples from other EU MS that is still relevant today, but that have yet to be fully incorporated into the public administration.[11]

GHG MRV Institutional Arrangements in Romania

When developing an M&E system for its climate strategy, Romania is able to build upon existing institutional arrangements, such as for UNFCCC and EU reporting, which appears to be complete, although the MRV system is not yet functioning as smoothly as it could. Knowledge of overall MRV requirements is not uniform throughout affected institutions and new regulations are still being integrated (World Bank, 2015a).

The first Romanian NSCC and APCC was set-up in 2005, and did not include M&E provisions or dedicated institutional arrangements. Romania's most recent NSCC was adopted in 2013, and proposed developing an M&E system and indicators as a part of the APCC, which are in the process of being finalized, with support from the World Bank (e.g World Bank, 2015a, 2015b).

Climate-related regulation and reporting are administered by the Romanian Ministry of Environment, Waters and Forests (MEWF). It prepares GHG-related reports for the EU and UNFCCC, for which it coordinates data collection from dozens of entities. A major challenge identified is that climate change is fundamentally a cross-sectoral issue overseen by the MEWF, which has authority over only a fraction of the relevant issues (World Bank, 2015a).

A broader issue is that mitigation and adaptation expertise is limited at the operational level, especially relating to policy analysis. There are limited tools available for monitoring performance, such as for energy efficient housing programmes. Also, Romania does not yet have procedures for assessing the socio-economic impact of GHG emission reduction measures or the impact other sectoral measures have on overall emissions. The data needed on LULUCF, for example, cannot rely on CO_2 emissions or removal levels (World Bank, 2015a).

As there have been only a few reporting requirements on adaptation as compared to mitigation previously, the relevant Romanian ministries must now include objectives related to climate change adaptation, set up appropriate MRV arrangements, and assign and train staff.

In addition, new requirements relating to the 17 new Sustainable Development Goals (SDGs) will emerge over the next few years, which are part of the international agenda on sustainable development, relating to all developed and developing countries. Romania is in the process of considering its response to the main climate change goal, Goal 13: Take urgent action to combat climate change and its impacts.

10 RO 2003/005-551.03.03.04

11 The booklet is at: http://discutii.mfinante.ro/static/10/Mfp/evaluare/Broshure_on_evaluation_EN.pdf

Next Steps for Romania

Romania is actively considering ways to further develop the M&E framework for its NSCC and APCC. The country is at an early stage on the continuum of evaluation. Identifying options to encourage collaboration among national authorities and local governments is key to realizing Romania's full GHG reduction potential, which is largely untapped. Also, while national organizations and institutions have the potential to inform policy development, research and education on climate change and adaptation are at an early stage. Increasing engagement, building capacities, and promoting a learning culture are all areas of opportunity (World Bank, 2015b).

The M&E system for the climate strategy. The M&E system is in the process of being developed. Romania should aim for practical yet cost-effective M&E activities, building upon and improving the current activities and the institutions as much as possible. The ultimate aim would be to better report on the targets established and assess policy effectiveness and facilitate continuous learning to underpin the design, implementation and delivery of future climate strategies and actions. The M&E system would be expected to evolve, expand and improve over time as capabilities increase and the value is increasingly recognised.

The major policies and draft high-level indicators have been already identified at the national level to assess the progress and performance of the NSCC and APCC in the coming years. More work is still needed, and stakeholder inputs are still being considered and operationalized. For example, it is clear that they would need to define the evaluation strategy for different policies and programmes, including refining the indicators, as well as clarifying responsible parties, sources of information, frequency, evaluation procedures, the process for stakeholder engagement and procedures for amendment.

In the meantime, government staff also continue to gain experience through compliance with evolving and deepening EU evaluation requirements.

Indicator Development. Romania has already developed an initial list of indicators for its NSCC and APCC as this area had the most solid foundation from which to build. When developing indicators in the future, Romania will need to review needs and existing capabilities for each sector as well as address ongoing cross sectoral and cross agency issues. The appropriate indicators and responsible institutions will need to be clearly defined for the named policies and measures for GHG mitigation. Yet, it can take advantage of indicators for the existing National Sustainable Development Strategy, such as (a) Biofuels use in the transport sector or (b) Income from taxes for the use and consumption of energy (World Bank, 2015a).

Linkages to Local Activities. Another area of consideration is the linkage to local climate change actions and M&E activities. Romania's cities are increasingly taking climate action. For example, by mid-September 2015, 63 municipalities and local administrative units (LAUs) in Romania had signed the EU Covenant of Mayors (CoM), in which they voluntarily agree to account for emissions and address climate change. Signatories commit to a target of at least a 20% reduction by the year 2020 as compared to 1990 levels, through the implementation of strategies adopted at the local level. Key CoM activities include development of a Baseline Emissions Inventory and a Sustainable Energy Action Plan (SEAP), and issuing periodic Implementation Reports and Monitoring Emissions Inventories that assess the effectiveness at achieving CO_2 reductions, which can link to broader evaluation efforts (World Bank, 2015b).

Municipal sustainable development activities clearly have impacts at the national level, for example, local implementation of climate-related policies manifest positive changes in electricity and fuel use. The national government is currently assessing how much to directly support and integrate these voluntary efforts into its national framework. Local governments could be encouraged to boost their activities through national support and assisted with integrating community initiatives with national-level policies. For instance, national-level policies regarding renewable energy and energy efficiency can create an enabling environment that encourages the adoption of clean energy resources and efficient activities at the local level. At a minimum, Romania has identified the value of increased collaboration and information sharing that enhances awareness of policy options and opportunities to facilitate local government action. The national government can also provide tools and resources to help overcome legislative, organizational and financial hurdles faced by local authorities addressing climate change (World Bank, 2015b).

Evaluation Culture. While the monitoring culture is well developed, the evaluation culture is not. Romania will need to work to deepen the evaluation culture, particularly with MEWF staff, as the lead on climate change issues, in a process expected to take several years. They can also include strategies to promote active learning as an integral part of the NSCC. Romania will need to facilitate a broad commitment to full and effective evaluation of the NSCC and APCC at all levels of government and amongst all relevant stakeholders to realize the full potential of climate actions. Fostering a real "culture of evaluation" will help to fully utilize the M&E system potential and take advantage of the feedback to increase effectiveness and better target resources.

Cross-sectoral issues like climate change may require new functional intra-institutional communication at the national level. Furthermore, the information needed to make these decisions in an integrated way has historically usually only been available to the sectoral authority, with no easy channels for communicating to other relevant authorities.

Strengthening Institutional Capacity. Romania has already identified opportunities to further strengthen the institutional capacity and the framework for climate M&E, which is seen as a key theme. The government is already taking steps to clarify roles, secure funding, train relevant staff, increase cross-agency coordination, expand stakeholder engagement, and better leverage national and international private sector, researcher, and civil society expertise. Expanded institutional arrangements should include participants from all socio-economic areas (from Ministries to research entities and to economic operators) and administrative levels (from the national government level to the local level).

Also existing legal requirements would need to be fully and consistently implemented. New legal structures would likely be needed to supplement the existing structures, particularly relating to the new adaptation and resilience measures (World Bank, 2015a).

Building National Capacity and Awareness. Romania is also considering strategies to build the awareness and technical capacities of its researchers, technical experts and local citizens.

For example, it is examining opportunities to increase collaboration among and educational programmes for research, scientific observation (of natural processes), data collection and technical knowledge, as well as new technological development and innovation, to better support informed and responsible decision-making regarding climate change mitigation and adaptation. This may be a key building block to help the government align its economy with the priorities set forth in the national climate change strategy and action plan (World Bank, 2015b)

Increased coordination, information exchange and training will help ensure that a critical mass of scientists and professionals have integrated climate change topics into their activities and are effectively sharing their results. This would stimulate knowledge production, such as through the development of dedicated climate change research initiatives and leveraging public-private partnerships. Research and information also could be made more accessible to the wide community of researchers and policy makers, particularly at the local level, as well as the general public.

Stakeholder engagement is an important component to provide opportunities to facilitate support and buy-in of government policies within the business community, civil society, and community groups, among others. Engaging the public increases the awareness of research by promoting it directly to interested parties, e.g. industry, farmers, population, etc. For example, this could be further institutionalized by more deeply involving appropriate regional or national institutions (Worldbank, 2015b).

There are several options to improve education and awareness being considered, which would involve additional training for staff within MEWF, and potentially deeper involvement of the National Commission on Climate Change.

Summary. Romania has begun the process of expanding the M&E framework as part of development of the NSCC and APCC. To be successful, the MEWF would need to ensure that the appropriate resources are allocated, ongoing evaluation activities are conducted, and that key results are channeled to higher levels, including the prime-minister, as well as civil society and the general public, as appropriate. There is an ongoing need for more communication and data/information exchange between relevant government entities at all governance levels to further improve system functioning and proactively address any weaknesses. Information will need to circulate freely, so that data providers understand the importance of the process and the results, as well as the importance of their contribution (Worldbank, 2015b).

The lessons learned in expanding the evaluation focus for climate action should feedback into other policy areas to more fully realize the vision initially articulated in its framework for M&E of public policies (PP), first articulated in 2005.

Conclusions and Next Steps

An effective and efficient M&E system is an essential component of any climate change strategy and is especially important where policy-makers are still developing their strategy. Yet most middle income countries, like Romania, have focused on monitoring and reporting, and are therefore missing the opportunity to incorporate evaluation findings into future policy development to better target resources. The good practices and examples in this paper can provide a roadmap for stakeholders to better understand what will be required to shift to a more comprehensive approach that can support governments to more effectively and efficiently operationalize the strategic path for implementing national climate change and low carbon green growth strategies.

Developing an effective climate M&E system requires pragmatism, a clear sense of purpose with defined roles, responsibilities and accountability, backed by sufficient financial, legal and political support. Increased stakeholder engagement as well as inter-agency and expert coordination is critical. Yet, it will have great potential to: enhance understanding amongst policy-makers and other key stakeholders of the country's opportunities, risks and vulnerabilities, and help identify cost-effective approaches to meet climate goals and to better target limited resources.

An effective M&E system has substantial benefits, yet requires considerable time and resources; therefore, building on existing principles and practices is highly recommended, as is integrating the principle of continuous improvement over time as best serves the local priorities and resources.

References

Barura, P et al., 2014, "Climate Policy Implementation Tracking Framework," World Resources Institute.
http://www.wri.org/publication/climate-policy-implementation-tracking-framework.

Climate-Eval. 2013. Study on Framework for Monitoring and Evaluation of Adaptation to Climate Change. https://www.climate-eval.org/content/framework-monitoring-and-evaluation-adaptation-climate-change

Climate Policy Initiative, 2012, "Tracking Emissions and Mitigation Actions: Evaluation of MRV Systems in China, Germany, Italy and the United States."
http://climatepolicyinitiative.org/wp-content/uploads/2012/05/Tracking-Emissions-and-Mitigation-Actions-Evaluation.pdf

Deaton, A., 2010. Instruments, Randomization, and Learning about Development. *Journal of Economic Literature*. 48: 424-455.

Meyer-Ohlendorf, N. et al. 2015, An Effective Governance System for 2030 EU Climate and Energy Policy: Design and Requirements Ecologic Institute.
http://www.ecologic.eu/sites/files/publication/2015/meyer-ohlendorf-15-effective-governance-syystem-2030.pdf

EU Commission, 2013, "Greenhouse gas Monitoring Mechanism Regulation (MMR). Regulation (EU) No 525/2013.

Global Environment Facility, 2015, Good Practice Study on Principles for Indicator Development, Selection, and Use in Climate Change Adaptation, Monitoring and Evaluation.

Green Growth Best Practice, 2014, "Green Growth in Practice: Lessons from Country Experiences" http://www.ggbp.org

Romanian Ministry of Public Finance, 2007, "Evaluation – an essential component in the process of formulating and implementing public interventions," Evaluation Central Unit. http://discutii.mfinante.ro/static/10/Mfp/evaluare/Broshure_on_evaluation_EN.pdf

Stern, E., et al., 2012, DFID Working Paper 38: Broadening the range of designs and methods for impact evaluations, DFID, London, UK.
http://r4d.dfid.gov.uk/pdf/outputs/misc_infocomm/DFIDWorkingPaper38.pdf

Wartmann, S., Larkin, J., Eisbrenner, K. and M. Jung, Knowledge Product: Elements and Options for National MRV Systems," International Partnership on Mitigation and MRV. http://mitigationpartnership.net/sites/default/files/mrv_knowledge_product_130830.pdf

Wörlen, 2013, Guidelines to Climate Mitigation Evaluations; Climate Change Evaluation Community of Practice c/o GEF Evaluation Office Washington D.C. https://www.climate-eval.org/sites/default/files/studies/Climate-Eval%20Guidelines%20to%20Climate%20Mitigation%20Evaluations.pdf

World Bank, 2015a, Report on monitoring & evaluation indicators related to the implementation of the climate change strategy and action plan, Romania Climate Change and Low Carbon Green Growth Program, The World Bank, Washington DC.

World Bank, 2015b, Romania Climate Change Advisory Report: Monitoring, Reporting, and Verification, Romania Climate Change and Low Carbon Green Growth Program The World Bank, Washington DC.

World Bank. 2011. Romania - Functional Review: Environment, Water and Forestry, Volume 1. Main Report. Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/12209