



**PMR Technical Work Program:
Report on FY14 Activities and Proposal for FY15**

Introduction

1. The PMR aims to provide systematic support to Implementing Country Participants to explore and address the technical and institutional capacity gaps to assessing, designing, and adopting innovative and cost-effective approaches to carbon pricing – such as domestic emissions trading schemes (ETS), carbon taxes or payments for emissions reductions.
2. The PMR provides technical assistance and capacity building to Implementing Country Participants through the development and implementation of the **Market Readiness Proposal (MRP)**, allowing them to assess design and implement carbon pricing instruments.
3. **The PMR Technical Work Program** complements MRP activities with the objective to facilitate experience and knowledge sharing on best practices, outline options to address common questions, issues and their respective implications, and support the emergence of common standards through the development of domestic infrastructure which are credible, consistent, and potentially compatible (i.e., the 3Cs). Key components of the Technical Work Program include:
 - GHG monitoring, reporting and verification (MRV);
 - Data management, GHG registries, and tracking tools;
 - Offset programs; and
 - GHG baseline setting.
4. This note includes two parts for consideration by PA: (i) status and progress under the Technical Work Program since its launch in March 2013; and (ii) proposed activities and budget for the financial year 2015 (FY15).
5. The proposed activities for FY15 reflect the assessment of the Secretariat that the Technical Work Program should **focus on complementing and supporting countries' implementation activities** through knowledge and capacity development, experience exchange, and practical guidance. Additional analytical support – i.e., work stream on modelling – will also be also strengthened but outside of the Technical Work Program and in a new program on Upstream Analytical Support. See *PMR Note PA9-2014-1* for more information.

I. Technical Work Program: Driving Implementation Progress through Knowledge and Experience Exchange

6. A unique strength of the PMR is that it brings together more than 30 countries including most of the world's largest and fastest growing economies and leaders in climate action. It is therefore important to enable both Contributing and Implementing Participants, as well as Technical Partners, to share their insights, experience and lessons learned when designing and implementing cost effective approaches to climate change mitigation, thereby making the PMR a key platform for technical discussions, experience sharing, knowledge pooling, and collective innovation on such approaches.
7. Timely sharing of knowledge, experience and innovative and cutting-edge approaches among PMR Participants becomes crucial to the PMR process as countries are implementing their MRP activities. Moving forward, Implementing Country Participants will need to inform decisions on the development of domestic carbon pricing frameworks while ensuring that these remains credible, consistent, and potentially compatible with existing and emerging international practices. Informing such decisions through knowledge development and experience sharing is therefore increasingly important and will be necessary for the emergence of common standards across domestic developments.

A. Activities and Organization of the Technical Work Program

8. To achieve these objectives, and deliver technical assistance to Implementing Country Participants in a comprehensive and programmatic manner, the Technical Work Program uses a range of activities and delivery modes, including:
 - **Knowledge Products** such as **Technical Notes** and other analytical products can be used as tools and guidance to support countries to inform and complement their MRP activities. Going forward, the Secretariat plans to further work with PMR Participants on **Country Case Studies** to incorporate and adapt analytical work to country-specific circumstances – for instance, in the areas of registries or offset programs. The Secretariat also plans to produce just-in time **Technical Briefs** which will provide regular and timely insights on specific new developments at the domestic or international level. The dissemination of knowledge products will be supported by **Webinars**, as appropriate;
 - **Technical Workshops** provide an important platform for the PMR Participants to engage in technical discussions with experts and both provide and seek peer feedback on specific innovative policies, therefore enhancing their individual capacities;
 - **Country-to-Country Exchanges** support knowledge sharing directly among the PMR Participants, for example, through the organization of bilateral, regional or multilateral

dialogues. These provide an opportunity for PMR Participants to examine solutions on issues encountered in other PMR countries;

- **Technical Trainings** complement the technical work program by disseminating knowledge among and beyond the PMR Participants – notably through engaging a range of country stakeholders and practitioners with the aim to support the development of local expertise and enhance existing capacities. Technical trainings are designed as hands-on practical learning events featuring a number of case studies and group exercises to examine practical considerations relative to specific readiness capacity.
 - **E-Learning modules** are being used to effectively and efficiently disseminate knowledge products and experience to a wider audience, in collaboration with the World Bank Institute and potential other partners.¹
9. Some components of the Technical Work Program – i.e., MRV, offset, and baselines – are supported by a **Working Group** comprising the PMR Participants and nominated experts who support the Secretariat through providing guidance on the activities of the Technical Work Program, input to workshops, and feedback on knowledge products and other deliverables.
10. The Secretariat has also engaged in collaborative activities with other initiatives and organizations to implement the Technical Work Program. Going forward, this collaboration and key partnerships will be further leveraged on in order to systemize activities and scale up technical support provided to countries – notably technical trainings.

B. GHG Monitoring, reporting and verification (MRV)

11. As the PMR Implementing Country Participants have finalized – or are in the process of finalizing – their MRPs, MRV has emerged as a key area in which countries need further support. Responding to this demand, the work program on MRV provides comprehensive and programmatic technical support to countries with the objectives of (i) addressing MRV issues and challenges common to Implementing Country Participants, (ii) complementing the MRV-related activities identified by Implementing Country in their MRPs, and (iii) sharing knowledge with a broader community. Reflecting the purpose of the Technical Work Program to support the development of domestic infrastructures which are credible, consistent, and potentially compatible, the Secretariat has engaged in a number of activities and partnerships to facilitate knowledge exchange and experience sharing on the development of robust domestic MRV frameworks.

¹ *The World Bank Institute (WBI) is a global connector of knowledge, learning and innovation for poverty reduction. WBI connects practitioners and institutions to help them find suitable solutions to their development challenges. For more information, visit <http://wbi.worldbank.org/wbi/>*

Activities to date

12. The Technical Work Program on MRV includes:

- **Establishment of the MRV Working Group (MRV WG):** The MRV WG has met three times and held virtual consultations to provide strategic input to define the work program, clarify scope of work of projects activities, and guide the program execution. Furthermore, the MRV WG has also convened expert contributions and support to MRV Technical Trainings and provided technical feedback during the review of several knowledge products.
- **MRV Regional Trainings:**
 - i. *First MRV Regional Training - Asia (September 2013, China):* this training focused on facility-level GHG reporting. The objectives were to provide information and share knowledge on the development of facility-level GHG reporting programs and engage participants in case studies and group exercises to examine practical readiness considerations. Participating countries included China, Indonesia, India, Thailand, Vietnam, and Singapore.
 - ii. *Second MRV Regional Training - Latin America & the Caribbean (Mexico, March 2014):* this training focused on MRV for NAMAs. The objective was to exchange good practices on MRV systems for NAMAs, explore similarities and differences with facility-level MRV frameworks, and discuss issues related to capturing NAMAs within national GHG inventories. The training was convened by the PMR and the International Partnership on Mitigation and MRV, and jointly organized in collaboration with the GIZ and the Latin American Development Bank (CAF). Participating countries included Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Peru, and Uruguay.
 - iii. *Third MRV Regional Training - Europe and Africa (Turkey, September 2014 – TBC):* the training will largely focus on MRV at the facility-level, and discuss opportunities and challenges of integrating information and data from facility-level GHG reporting programs into national GHG inventories. Participating countries will include Jordan, Morocco, Kazakhstan, South Africa, Tunisia, Turkey, and Ukraine.
- **Knowledge Products:**
 - i. *Technical Note on MRV in China's Pilot Emissions Trading Schemes:* the note provides an overview of the key components of the seven pilots' MRV frameworks, and analyzes the similarities and differences between these programs and the national reporting guidelines. The note will be published in June 2014.

- ii. *Design Guide for Mandatory GHG Reporting Programs*: the guidance document supports policy makers in regard to the establishment of reporting programs that reflect country-specific objectives. The Design Guide notably draws upon the experience of countries that have implemented or are in the process of developing GHG reporting programs. The Design Guide will be published in July 2014.
 - iii. *Discussion Paper on Components and Linkages of MRV at Different Levels*: this note identifies opportunities to coordinate and integrate components of MRV frameworks (e.g., data management, regulation) across facility, NAMA, and national levels. It was prepared for the Second PMR Regional Training Latin America & Caribbean.
- **Workshop on Monitoring, Reporting and Verifying Emissions under Existing and Emerging Carbon Pricing Mechanisms**: the PMR will co-host a workshop on MRV on June 3, 2014 in Bonn, Germany with a number of organizations involved in the Climate-KIC Research Project. International experts and country representatives will provide in-depth analysis of MRV practices in established and emerging carbon pricing initiatives across different scales (e.g., national GHG inventories, facility-level in ETS, sector-based – such as REDD+ – and project-based mechanisms) and discuss opportunities and challenges to building credible, consistent and compatible MRV infrastructure to support global mitigation action.

Proposed Activities for FY15

13. In FY15, the Technical Work Program on MRV will continue working along existing channels, yet it will scale-up and deepen its activities with additional country- and region-tailored trainings and workshops, technical notes and other knowledge products, as well as the development an e-Learning program. Proposed activities are as follows:

- **Needs Assessment Tool for MRV Development Objectives**: this tool will be designed to help countries assess the “readiness” status of their MRV frameworks at the national and facility-levels, and provide a “how-to” guidance on data collection and overall infrastructure that is needed for effective integration of facility-level programs with national GHG inventories.
- **Regional and Country-specific MRV Trainings**: the Secretariat will work with the Implementing Country Participants to assess individual country needs and develop country-specific MRV Trainings focusing on their specific priorities and challenges. Such trainings will be targeted at a wide domestic audience, including representatives from government agencies, business associations, selected companies, organizations involved in verification, and other relevant stakeholders (50-70 participants per training). The number of in-country and regional trainings will be determined based on the needs and assessment of the countries and the capacity of the PMR Secretariat to organize such events. The PMR is discussing with a number of other MRV-related initiatives to explore opportunities to enhance strategic partnership and maximize

synergies. The experience with working with the International Partnership for MRV and Mitigation and other partners to organize the Second PMR Regional Training Latin America & the Caribbean demonstrated that such alliances will be necessary to systemize further efforts and develop comprehensive training programs going forward.

- **E-Learning course on MRV at Different Levels:** drawing on the experience with the e-Learning program on *Emissions Trading Systems: Using Markets to Promote Low Emissions Development* developed in collaboration with the World Bank Institute (in October 2013), the Secretariat will develop an e-Learning on MRV with the objective to spread existing knowledge on MRV at various levels and scales (i.e., national GHG inventories, facility-level GHG reporting, and NAMAs) in a comprehensive, cost-efficient and easily accessible manner. Key components of the MRV frameworks will be covered, including GHG quantification methodologies, institutional arrangements, data management systems and regulatory arrangements.

C. Offset Programs

14. Among the PMR Implementing Country Participants, 7 are currently in the process of developing a domestic offset program as a compliance option to domestic ETS, carbon tax or carbon neutrality frameworks. Other countries have expressed interest in enhancing their understanding and technical knowledge on the same matter. The Technical Work Program on Offsets aims to support countries to overcome challenges related to the design and implementation of country-specific offset programs that remain credible, consistent, and potentially compatible with one another.

Activities to date

15. Since its launch, activities under the Technical Work Program on Offsets have included:

- **Establishment of the Offset Working Group (OWG):** The OWG was established in October 2013 and brings together experts from 11 Implementing Country Participants and 9 Contributing Country Participants.² Members of the OWG have met twice through virtual platforms (in December 2013) and held face-to-face meetings (in March 2014) to provide strategic and technical support to the Secretariat and define the scope and activities of the Technical Work Program on offsets.
- **Knowledge Product:** *PMR Technical Note 6 on Overview of Carbon Offset Programs: Similarities and Differences (May 2013)*. The note provides a comprehensive overview of the key design

² Countries currently participating in the offset working group include: Brazil, Chile, China, Columbia, Costa Rica, the European Commission, Finland, Germany, Indonesia, Kazakhstan, Mexico, Netherlands, Norway, Peru, South Africa, Sweden, Switzerland, Thailand, UK, USA as well as representatives from California and Quebec.

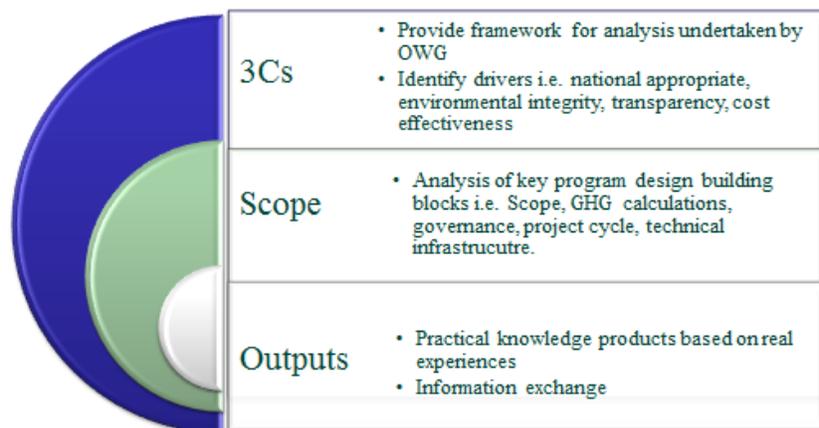
features of 8 international and domestic offset programs, and analyzes their commonalities and differences.

- **South-South Exchange on Developing Domestic Offset Schemes (March 2014, Mexico):** the workshop featured and discussed key developments in established and emerging offset programs and provided a platform for consultation the priorities of PMR Participants be addressed under the Technical Work Program on Offsets. The event was organized with funding support from the United Kingdom Department of Energy and Climate Change (UK DECC).
- **Webinar on California’s Compliance Offset Program (February 2014):** the Secretariat invited the California Air Resources Board to introduce PMR Participants to California’s offset program and share recent developments.

Proposed Activities for FY15

16. From October 2013 to May 2014, the Secretariat carried out in-depth consultations with the PMR Implementing Country Participants and the OWG to better comprehend the development status of offset programs in countries, collect feedback and expectations, and define the scope of the Technical Work Program on Offsets (see
17. **Figure 1** for more details on the consultations outcomes).

Figure 1 – Framing the scope of the Technical Work Program on Offsets



As a follow-up, the Secretariat has identified a number of activities for the Technical Work Program in FY15.

- **Knowledge Products:**
 - i. *Technical Note 6 on Overview of Carbon Offset Programs: Similarities and Differences:* the note will be updated and will expand in coverage with additional offset programs such as California’s Compliance Offset Program, Australia’s Carbon Farming Initiative, and the Swiss offset program being examined.
 - ii. *Country Case Studies:* the Secretariat is currently discussing with several Implementing Country Participants to identify potential candidates for Country Case Studies. Two Country Case Studies could potentially be delivered in FY15. The objectives of Country Case Studies are to incorporate analytical work in country-specific developments and deliver demand-driven support with an output which would be of interest and relevance to several PMR Implementing Country Participants. Areas for support identified by the Secretariat and OWG include:
 - *Building on existing infrastructure:* guidance on the challenges and opportunities associated with the use of existing offset programs and their infrastructure (e.g., GHG protocols, registries etc.) within a specific country context;
 - *Scope of offset programs:* guidance on “how-to” define the scope of a domestic offset program (i.e., sectors and activities covered) highlighting potential time and resource involved, and taking into account domestic priorities and potential demand for such offsets;
 - *Development of domestic offset protocols:* guidance on “how-to” identify and adapt existing offset protocols and tools of interest to a country - leveraging on local data and regulatory environment (i.e., standardization).
 - *Architecture and governance of offset programs:* guidance on the design of the project cycle and governance framework of an offset program (e.g., third party verifiers, stakeholder consultation etc.) – including special features (e.g., invalidation clause, replacement buffer etc.) – based on an assessment of the specific risks to be managed in the operations of the program and its project activities (e.g., errors in GHG reductions calculation, non-permanence, corruption etc.).
 - *Data management and registry infrastructure:* such infrastructure supports MRV frameworks through their several dimensions (i.e., GHG inventory, project database, and tracking of credits) and levels (i.e., from project-based to national). It will therefore be addressed separately as cross-cutting component of the Technical Work Program (see Section D).
 - iii. *Technical Briefs:* this category of knowledge products will provide the PMR Participants with regular and timely insights on new developments or technical issues related to international or domestic offset programs. A first Technical Brief will focus on the provisions for voluntary cancellation of CERs is under consideration.

- **Technical Workshop:** the Secretariat intends to hold an international workshop on domestic offset programs convening international experts and country representatives which will aim to place and examine national approaches to offset into an international perspective. The workshop will provide a platform to discuss the opportunities and challenges for domestic offset programs to collectively participate in the emergence of global carbon pricing going forward.

D. Data Management, GHG Registries and Tracking Tools

18. As Implementing Country Participants are moving forward with the development of domestic MRV frameworks and pricing instruments (e.g., offset programs, ETS), they have expressed a need for guidance on the technical infrastructure that supports these developments – such as data management systems, GHG registries or transaction registries. The design and implementation of such technical infrastructure may be challenging for policy makers to comprehend as it often involve IT systems and consist of several different elements serving different purposes – such as the management of GHG data at the facility or/and national level (i.e., GHG registry) or the issuance, tracking, and cancellation of carbon units in established market mechanism (i.e., tracking tool/ transaction registry).
19. The Secretariat is developing a comprehensive Technical Work Program on Data Management, GHG Registry and Tracking Tools to provide countries with technical knowledge and practical guidance for implementation. Given the cross cutting nature of such developments, both the MRV and Offset Working Groups may be solicited for guidance and input.

Proposed Activities for FY15

- **Knowledge Products:**
 - i. *Guidance on the Development of GHG Registries:* building on *Technical Note 4: Supporting GHG Mitigation Actions With Effective Data Management Systems* this guidance document will present and analyze the architecture of the national data management system in several countries, and more specifically explore how a national GHG registry may interact with – and potentially integrate – other systems such as reporting registries for air pollutants, various databases (e.g., offset project information), and transaction registries for tracking units in market mechanisms. It will also provide countries with practical guidance on the steps to consider when developing a GHG registry – from the development of specifications to define the overall architecture of the system, to the choice of the supporting technology. The costs associated with the development and day-to-day operations of a GHG registry will be analyzed. Uncertainties and challenges with regards to international policy developments will also be discussed.

- ii. *Country Case Study on Transaction Registry/Tracking tool*: the Secretariat will discuss with several Implementing Country Participants implementing market-based instrument(s) to identify a potential candidate for a Country Case Study on the development of a transaction registry to issue, track, and retire the domestic carbon units. The study will lay out the different options available for the country to implement such systems (i.e., build own registry, outsource development and/or operations) and assess each option in light of technical (e.g., software), institutional, regulatory, and cost considerations.
 - **Technical Workshop**: The Secretariat will organize a workshop to discuss latest country developments and challenges on data management systems, GHG registry and tracking tools and define further activities under the work program.

E. GHG Baseline Setting

20. Recognizing that baselines are a critical element of the readiness work for market based instruments, the Secretariat established a Working Group on Baselines to advise on scope of work on baselines. To date, the Technical Work Program on Baselines has delivered the following outputs:
 - Technical Workshop on Baseline Setting (May 2012, Cologne) to explore options to leverage on the existing experience with baseline setting in the context of scaled-up crediting mechanisms;
 - Knowledge Products: *Technical Note #6: The Nuts and Bolts of Baselines Setting: Why, What and How?* (August 2012), and *Technical Note #5: Options and Guidance for the Development of Baselines* (October, 2013).
21. Originally, the Secretariat had proposed to use the principles and steps outlined in the *Technical Note #5* in several case studies to road test the guidance and reflect options to address trade-offs and challenges. Such case studies were envisioned to focus on baselines for scaled-up mitigation actions in sectors with different economic and institutional features.
22. Due to the lack of clarity in regard to the "end result" of the proposed scaled-up crediting programs, the Secretariat decided to temporarily put such road testing on hold. In the absence of demand for the credits they generate, it seems highlight hypothetical to carry out further studies or road testing. The Secretariat will therefore resume activities when the context allows. The potential forthcoming establishment of a piloting purchasing fund for scaled-up crediting programs could – for example – provide such opportunity.

F. Other

23. In February 2014, the Secretariat published the *Technical Note 7: Lessons Learned from Linking Emissions Trading Systems: General Principles and Application* which reviews the lessons learned

from linking ETS – notably based on the experience of California and Quebec as well as the EU and Australia. The note lays out general recommendations on formats and priority areas of collaboration between jurisdictions considering to link – such as MRV, enforcement framework, or auction design. Beyond providing insight on options for linking, such experience provides concrete and much valuable insight to support the emergence of credible, consistent, and potentially compatible carbon pricing frameworks across countries. The Secretariat intends to further explore considerations on the equivalence of specific components of carbon pricing frameworks – such as MRV.

II. Technical Work Program Budget

24. For FY14, the PA approved a budget of \$1 million for the delivery of Technical Work Program. Actual expenses totaled \$958,000 to support the activities described in Section I.³
25. Based on the proposed activities, the Secretariat proposes to allocate \$1million for the delivery of the Technical Work Program in FY15. Some flexibility is needed for the allocation to individual components of the Technical Work Program.

Action by the PA

26. PMR Participants are invited to provide feedback on the proposed activities and budget for the PMR Technical Work Program in FY15 and consider it for endorsement at PA9 in Cologne, May 25-27, 2014. Following endorsement, the Secretariat will report back to the PA periodically on progress of the work program and seek further guidance on its scope and activities.

³ These figures represent actual expenses through March 31, 2014 and estimated expenses from April 1 through June 30, 2014.