



# **POLICY ANALYSIS WORK PROGRAM:**

## **REPORT OF FY16 ACTIVITIES AND PROPOSAL FOR FY 17**

### **(PMR NOTE PA14 2016-2)**

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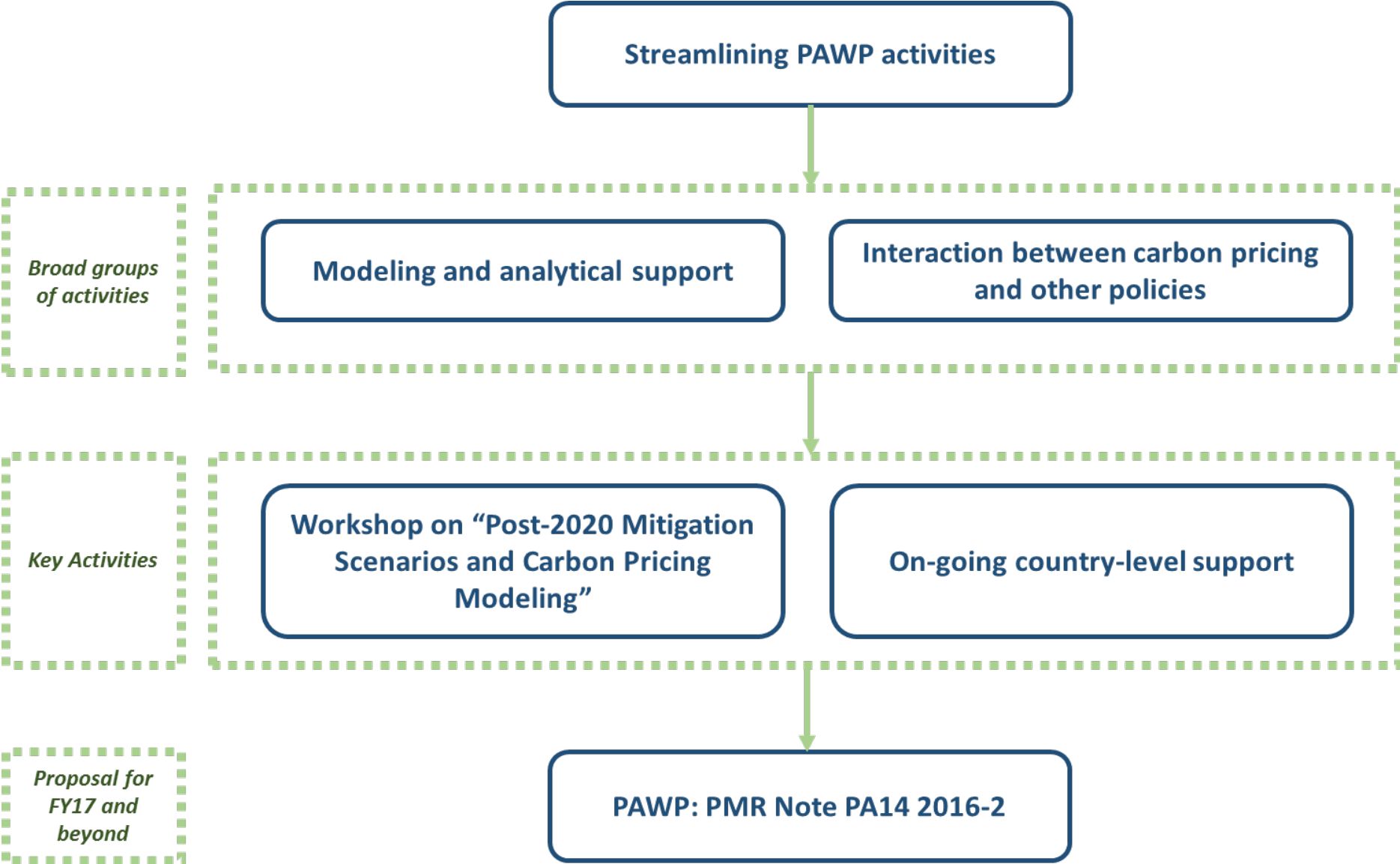
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# Policy Analysis Work Program: Background

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- **PA8:** Proposal on Upstream Policy Work (PMR Note PA8 2014-2) – *support for the analysis and development of policy options for mid- and long-term mitigation objectives*
- **PA9:** Official launch (Resolution No. PA9/2014-3)
- **PA10:** Update on PMR Upstream Analytical Work
- **PA11:** Update of the progress made and presentation on the “Checklist for Establishing Post-2020 Mitigation Scenarios”
- **PA12:** Endorsement of continuation (Resolution No. PA12/2015-1)
- **PA13:** Update + EOIs received from countries (PMR Note PA13 2015-2) – *to identify a package of policies/measures, understand impacts and barriers, and achieve effective policy design, relevant to (I)NDCs and use of carbon pricing*

# Policy Analysis Work Program in FY16



# Country-level activities in FY16

Country	Description
Brazil	Climate impact on energy system; low-hydro scenario to 2030 and implication on thermal generation increase and offset through EE, input to INDC
Chile	Modeling of policy options and developing action plan for energy sector in INDC, building on past work on carbon tax modeling and policy interaction
Colombia	Macro-economic modeling of carbon pricing instruments, contributing to INDC; modeling of ETS design options and design roadmap
Costa Rica	Developing modeling framework and capacity building for exploring decarbonization pathways to achieve INDC targets
Morocco	Identifying effective policies and market-based instruments to achieve INDC targets and provide incentives for low-carbon actions
Peru	Low-carbon scenarios and MAC curves by 2030 and their macro-economic impacts, contributing to INDC targets and cross-sectoral discussion
South Africa	Analysis of the principles and effectiveness of combining carbon budget and carbon tax in achieving mitigation goals
Turkey	Support for strengthening local modeling capacity and tools for analyzing mid- to long-term emission trajectory, policy options and impacts
Vietnam	Assessing policy options that would stimulate mitigation actions and private-sector investments toward meeting INDC targets

# Program-level in FY16: Brasilia Technical Workshop



- ❖ Feb 1<sup>st</sup>-3<sup>rd</sup>, 2016
- ❖ Hosted by the Brazilian Ministry of Finance
- ❖ 50+ participants (policy makers and technical experts)

# Brasilia Technical Workshop – Key Outcomes

## *Potential PAWP activities identified at the Technical Workshop*

Analytical support for modeling tools and approaches	Support for the analysis of policy impact	Support for the analysis of design features	Cross-cutting: Capacity building modalities
<ul style="list-style-type: none"><li>• Develop sector-specific models for carbon pricing instruments</li><li>• Modeling/ analytical approaches to assess barriers to low carbon options</li></ul>	<ul style="list-style-type: none"><li>• Analysis of co-benefits associated with carbon pricing policies</li><li>• Analysis of policy interaction between key sectors and relevant guidelines</li></ul>	<ul style="list-style-type: none"><li>• Assessment of design options for ETS, carbon tax, and implicit carbon pricing</li><li>• Analysis on new market mechanism and transfer of mitigation units</li></ul>	<ul style="list-style-type: none"><li>• Training on modeling techniques with deep dive into specific topic/s</li></ul>

- Other activities put forward at the workshop included: (i) MAC-based simulation tool; (ii) modeling tools and analysis of mitigation pathways including INDCs; (iii) assessment of linking national markets to create regional markets; (iv) assessment of cost and price impact of carbon pricing policies; and (v) strategies and approaches for national stakeholder engagement and consensus building
- **Based on the workshop outcomes, the PAWP proposal would be submitted for virtual feedback**

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# Proposed Future Activities – PAWP Framework

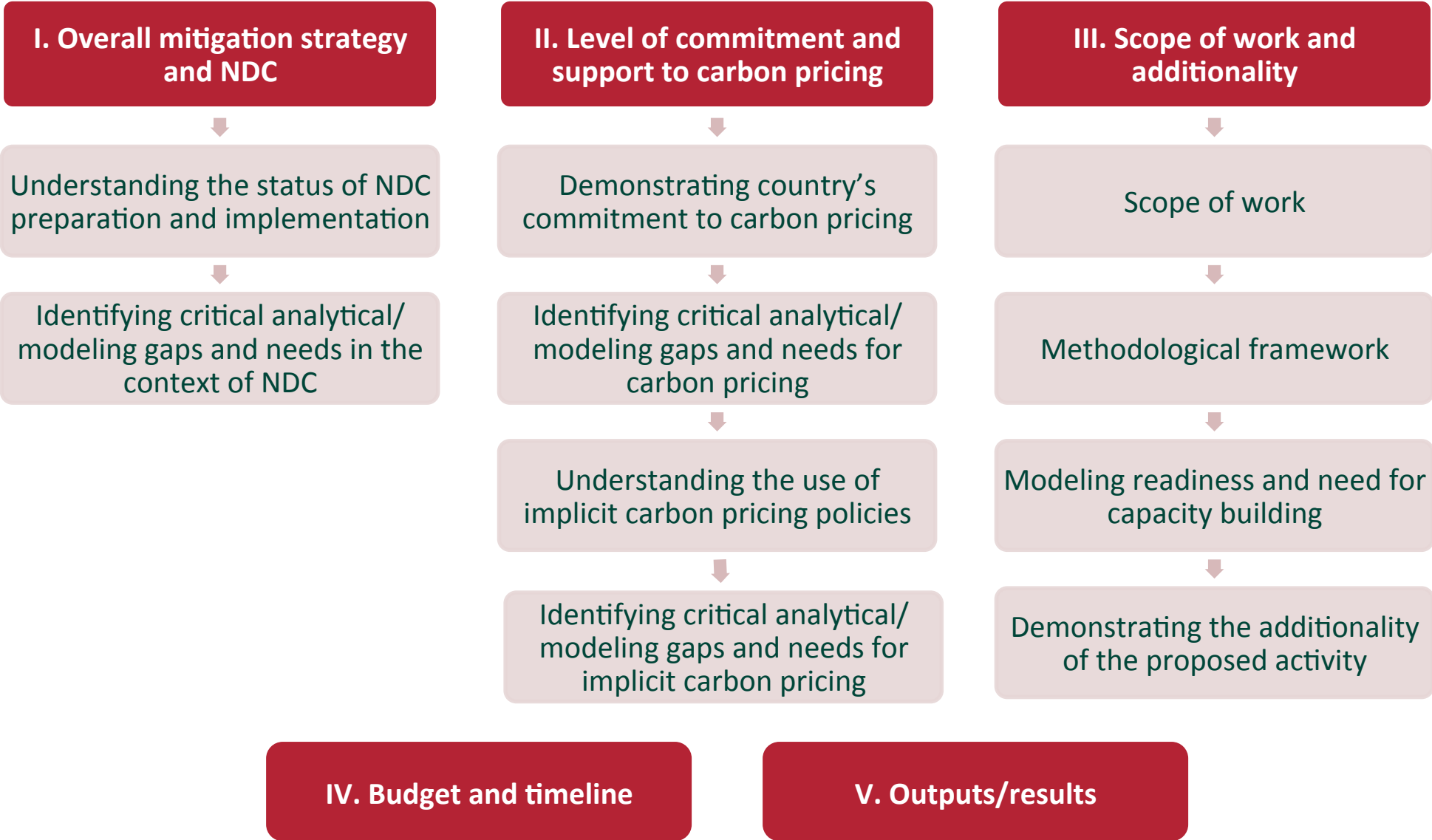
<i>Activity</i>	<i>Development and application of modeling tools and approaches</i>	<i>Modeling and analysis of policy impact and policy interaction</i>	<i>Capacity building in modeling and policy analysis</i>	<i>Modeling of policy design options and their implications</i>
Country-level activities	<b>ICP’s proposal</b> (in-depth, detailed country-specific modeling)	<b>ICP’s proposal</b> (country-specific issues)	<b>ICP’s proposal</b> (targeting local technical experts, local modelers, local institutions)	<b>ICP’s proposal</b> (in-depth, country-specific modeling)
Program-level activities	<b>Carbon pricing simulation tool</b> (global model, linkages between ICPs and other regions, support linking national model to international framework/scenarios)	<b>Carbon pricing simulation tool</b> (international dimensions, and cross-country issues)	<b>Carbon pricing simulation tool</b> (targeting policy makers, non-modelers, general audience, peer exchange, model comparison)	N/A
<b>Global and regional workshops</b> (consolidate all country- and program-level activities around the overarching framework)				

# Country-level activities: FY17 and beyond

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- **Scope of work:** Support activities that fall within the PAWP framework
- **Principles:**
  - Relevance to the preparation and/or implementation of (I)NDC
  - Commitment to the development/implementation of carbon pricing
  - Well-targeted scope that addresses critical analytical/modeling gaps and demonstrates additionality
- **Process**
  - Integrated approach for funding additional activities (PMR Note PA14 2016-1)
  - ICPs are invited to submit proposal using a template (annex to PMR Note PA14 2016-1)
  - A tool is available to support proposal development (annex to PMR Note PA14 2016-2)

# Country-level activities: Proposal Tool



# Program-level activities: Carbon Pricing Simulation Tool

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## ➤ Rationale:

- Complement country-level modeling, through international dimensions/linkages/scenarios, and allow model comparison
- Direct use by policy makers and non-modelers, for policy analysis/discussion, developing consensus on scenarios, and capacity building

## ➤ Characteristics

- **Platform (front-end):** Web-based, user-friendly simulation tool, with flexibility in policy choice and ambition levels;
- **Coverage:** Global, with all individual ICPs – Modeling of specific scenarios for 4-5 ICPs is planned for FY17;
- **Target policies:** Explicit and implicit carbon pricing policies (national policies and international cooperation), as part of overall policy package;
- **Impacts:** GHG emissions across sectors relative to (I)NDC and global targets, key macroeconomic indicators (e.g. GDP growth, competitiveness, international trade), sectoral/structure changes, co-benefits, financial/economic implications;
- **Underlying model (back-end):** Existing IPCC-grade, hybrid modeling framework

# Comparison: proposed CPST and similar tools

	Carbon pricing modeling	All individual ICPs	International dimensions	GHGs/ sectors in INDC	Impacts beyond GHG	Use by non-modelers	Underlying model
<b>Global Calculator (UK, WRI)</b>	No	No	No	All	Yes	Yes	Bottom-up
<b>WITCH simulator (CMCC/FEEM)</b>	Yes	No	Yes	All	Yes	Yes	Dynamic Op (IPCC)
<b>LEAP (SEI)</b>	No	No	No	All	Limited	No	Bottom-up (peer-reviewed)
<b>RunGTAP (Purdue)</b>	Yes	Yes	Yes	Partial	Yes	No	CGE (peer-reviewed)
<b>EFFECT (World Bank/ESMAP)</b>	Limited	No	No	Partial	Limited	No	Bottom-up
<b>MAGICC (NCAR et al)</b>	No	No (global)	No	All	No	Yes	GCMs/IAMs (IPCC)
<b>EVALUATE (World Bank, Enerdata)</b>	Yes	No	Limited	Partial	Limited	Yes	Partial Eq (Peer-reviewed)
<b><i>Proposed CPST (World Bank/PMR)</i></b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>All</b>	<b>Yes</b>	<b>Yes</b>	<b>Hybrid (IPCC)</b>

# Next Steps

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- The PA is invited to provide feedback on the proposed activities (PMR Note PA14 2016-2)
- The ICPs are invited to indicate interest in receiving support for additional activities at country- and program-levels
- The PMR Secretariat will refine the scope of PAWP based on feedback and further consultation
- The PMR Secretariat will revise and finalize the proposal template and tool for country-level activities
- The PMR Secretariat will present initial design and detailed proposal of the Carbon Pricing Simulation Tool at PA15 for feedback and input

# Thank You for Your Attention

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