

June 18, 2019

SB50 Side Event Report
Considering the adoption of carbon pricing to meet Paris Goals:
Experience and way forward

Overseas Environmental Cooperation Center, Japan

Prepared by Jun Watanabe

This is a report of a side event held at 50th Session of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body (SB 50) for Implementation organized by UNFCCC from 17th to 24th June 2019, in Bonn, Germany.

- Title: Considering the adoption of carbon pricing to meet Paris Goals: Experience and way forward
- Date: 18 June 2019, Tuesday, 13:15–14:45
- Organizers: UNFCCC
- Venue: Room Bonn
- Panel: Ms. Julianne Bosse (Quebec), Ariel Yu (UNFCCC RCC BKK/IGES), Mr. El Hadji Mbaye Diagne (Vice-Chair CDM EB), Mr. Carlos Rulz Garvia, (UNFCCC RCC Panama)
- Moderator: Mr. Nicolas Muller (Technical Officer for CI-ACA)

■ Abstract

This side event is a part of “The Collaborative Instruments for Ambitious Climate Action (CI-ACA) Initiative” work stream to provide an overview of the achievement in the first phase of CI-ACA from 2016 to 2018. CI-ACA has overachieved its initial goal and has been working with 18 jurisdictions. The side event especially focused on recently finalized activities in ASEAN and Pakistan but also shared experiences in Quebec, Senegal and Latin America.

■ Session summary

1. Ms. Julianne Bosse, Quebec: Opening Remarks
 - All governments should understand that climate protection and economic growth need to march together. The PA underlines the importance of putting price on carbon to effectively reduce GHG emissions.
 - Growing number of jurisdictions worldwide are implementing/planning carbon tax or ETS. According to WB, there are total of 57 initiatives and the number is set to grow. 20% of global GHG emissions will be covered under these carbon pricing initiatives by 2020.

- Quebec was one of the early adopter of carbon pricing. Carbon pricing is a center piece of Quebec's climate approach. Backing to 2007, Quebec was the first government in North America to put price on carbon through a levy on fossil fuel. Cap & Trade system was established in 2013 which now covers 80-85% of Quebec's GHG emissions. In 2014, Quebec linked its system with California and became the largest carbon market in North America and firstly designed and operated by governments of different countries.
 - Government of Quebec committed to reinvest all the revenue generated by carbon market into a green fund to be used for implementing the climate action plan in Quebec.
 - Thanks to this green fund, Quebec has been able to implement various international climate cooperation measures including supports for developing countries and contribution to the Least Developed Countries Fund (LDCF)¹.
2. Ariel Yu (UNFCCC RCC BKK/IGES): Cooperative MRV as a foundation for a potential regional carbon market in ASEAN
- The study was undertaken together with ASEAN Working Group on Climate Change (AWGCC)². The importance of harmonizing MRV system in the region was emphasized by member states in a AWGCC meeting.
 - There are multiple benefits from harmonized MRV. If MRV systems are designed in incompatible ways, more difficult to harness collaborative opportunities in the scope of Article 6.2 and 6.4 of the PA, especially at the regional level.
 - This study itself doesn't represent a commitment to the cooperative action but is setting a foundation for exploring such an option.
 - Three objectives of the study
 - To assess the current status of MRV systems in ASEAN Member States
 - To review country progress and future prospects for the adoption of carbon pricing instruments
 - To identify commonalities and differences among ASEAN Member States on MRV and carbon pricing, with a view of exploring opportunities for alignment and harmonization
 - Scope of the analysis and approach: 10 countries were assessed and country reports and synthesis report were developed. Brunei, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Singapore, Thailand and Vietnam.
 - Scope of MRV assessment: Analysis of MRV considered at three levels: 1) National

¹ <https://www.thegef.org/topics/least-developed-countries-fund-ldcf>

² <https://environment.asean.org/awgcc/>

GHG inventory, 2) Sectoral/Policy, and 3) Facility/Installation.

- Findings in MRV at national level
 - GHG inventory preparation is a regular process in majority of ASEAN Member States
 - Potential for regional collaboration in the areas of knowledge transfer, capacity building and best practice sharing
 - To set up of a regional knowledge centre that could serve as “one-stop-shop” for countries to develop their capacities and knowledge on this dimension of MRV (recommendation of the assessment)
- Findings in MRV at sectoral/policy level
 - Countries’ initiatives such as NAMAs on energy, industry, transport, AFOLU and waste sector, REDD+ Programmes and policies on energy management can be linked with MRV of GHG emissions.
- Findings in MRV at facility/installation level
 - Only four countries of ASEAN are developing MRV at the facility level: Indonesia, Singapore, Thailand and Vietnam
 - Some experience exists in most ASEAN Member States on MRV at this level, particularly CDM or voluntary standards and voluntary GHG emissions reporting by companies.
 - More progress is observed in monitoring and reporting than in verification protocols /procedures.
- Carbon pricing instruments are at different levels of development in ASEAN Member States

Indonesia	Four market-based instruments assessed: i) domestic ETS, ii) energy efficiency certificate system; iii) cap-and-tax; iv) domestic carbon offsetting scheme
Philippines	Carbon tax and ETS being considered in the national context
Singapore	Economy-wide carbon tax from 1 January 2019 Instrument covers 80% of national emissions
Thailand	Thailand V-ETS being piloted by TGO Study underway to assess the impacts to the economy of carbon tax and ETS
Vietnam	ETS under consideration, with activities underway in the scope of the PMR programme

- There are opportunities for cooperation, alignment and harmonization such as 1) MRV

Hub concept, 2) M&R requirements or guidelines, 3) design elements of carbon pricing instruments

- All reports of “Study on cooperative MRV as a foundation for potential regional carbon market within ASEAN” are available at <https://unfccc.int/about-us/regional-collaboration-centres/the-collaborative-instruments-for-ambitious-climate-action-ci-aca-initiative>

- 3. Nicolas Mueller (UNFCCC): Study on the Introduction of Carbon Pricing Instruments in Pakistan
 - Nicolas Mueller (UNFCCC) gave presentation instead of Md. Irfan Tariq (Ministry of Climate Change, Pakistan) who couldn't come to the event.
 - Based on national circumstances, SWOT analysis & Readiness assessment was prepared.
 - Lower-middle income country
 - Development priorities: poverty reduction, food security, energy access
 - Priority on Adaptation over mitigation
 - Emissions expected to increase 4 times over 2015-2030 period
 - Net energy importer (oil and petroleum imports accounts about 3% of GDP)
 - Energy sectors is the major source of emissions (46% in 2015)
 - Potential benefits for Pakistan with the adoption of a carbon pricing instruments
 - Achievement of NDC targets
 - Co-benefits from GHG mitigation: reduction of air pollution and cost of energy imports, technology transfer and long-term de-carbonization
 - Could be additional source of revenue for the government
 - The study considered two options of Carbon taxation.
 - Adjusting the already existing Petroleum Development Levy or carbon tax on coal
 - Adopting an economy-wide carbon tax would be challenging but international good practice can be taken as reference
 - ETS provides higher degree of flexibility than a carbon tax meaning the government can shape a suitable ETS. ETS can be feasible in terms of number of participants and coverage of emissions to ensure sufficient liquid to form effective carbon price. Sufficient number of participants is 121 facilities by 2023 covering 26 % of domestic emissions. But there are challenges and risks of complexity, low familiarity of companies and need to establish governance.
 - The study recommends following features of ETS development
 - Flexibly capping CO2 emissions from key sectors and industries
 - Progressive inclusion on a step-wise basis

- Sectors not included could be considered as a source of offsets
 - Consider alignment/linkage with other ETS
 - The study considered hybrid approaches of carbon pricing.
 - Establishment of an Emissions Reduction Fund: but unfitting for a “cash-constrained” country
 - Starting with carbon tax on large-scale emitters and transiting to ETS: but expected resistance from industries and public
 - Creating energy efficiency certificate system: only suboptimal environmental outcome
 - A domestic EST is expected to result in highest benefit and have the greatest impact overall compared to other carbon pricing instruments considered. Adjusting existing levies to a carbon tax can be a short term option and further consideration of a domestic ETS can be mid-to-long term ambition.
 - Consultations with provinces and industries, increasing readiness to develop a domestic ETS and collaboration with partners are possible next steps.
4. El Hadji Mbaye Diagne, Vice-Chair CDM EB: Senegal: validation workshop and way forward
- Opportunity study for implementing carbon pricing instruments in Senegal was conducted supported by Perspectives as consultant, Germany, Switzerland, Quebec, Norway, Sweden, UNFCCC and RCC Lome from July to December 2018.
 - The study Identified most mostly emitting sectors within the NDC and applied multi-criteria analysis to identify most suitable sectors for market approaches and to identify best suitable instruments. Conducted large-scale stakeholder consultation with Government representatives, private sectors, NGOs and local governments.
 - The study conducted SWOT analysis for each carbon pricing instrument (Carbon tax, baseline crediting scheme, ETS and fiscal reform) in each sector (Fossil Fuel Production, electricity production, industry(mainly cement production), solid waste and wastewater).
 - Tips: Senegal has just started preliminary stage of oil/gas production recently and will effectively start on 2021.
 - The result of multi-criteria analysis indicates that “carbon tax with tax revenue recycle” is the best approach in all the sectors. However, it is necessary not to increase the total amount of taxes imposed by existing taxes and carbon tax. The study also recommended offsetting mechanism using domestic mitigation projects instead of paying tax can be incorporated.
 - Additional study is needed to assess impacts caused by different rates of the tax and

how to mitigate negative impacts.

5. Mr. Carlos Rulz Garvia, UNFCCC RCC Panama: CI-ACA Experience in Latino America and Caribbean
 - RCC Panama in partnership of CAF (Latin America Development Bank) and RCC St. Georges in partnership of St. Georges University are providing supports for introducing carbon pricing instruments in Latin America and Caribbean.
 - Three countries: Dominican Republic, Panama and Paraguay are part of CI-ACA project in the region. South-south cooperation is a strong feature of the project, and it benefits from advanced experiences in Chile, Colombia and Mexico.

[Activities in Dominican Republic]

- The first National Carbon Pricing Consultation participated by different governmental sectors and industrial sectors was held on Dec 2017 to assess needs and priorities followed by the initial assessment of the relevant legislation and fiscal policies.
- Establishment of the National Advisory Committee on Carbon Pricing Instruments for ambitious climate action and commencement of the national carbon pricing studies.
- “Carbon Pricing Instruments Study in DR” evaluated the options of implementing carbon tax, ETS, hybrid scheme and green certificates considering the political, social and economic context. Validation session of the analysis of carbon pricing instruments. (Nov 2018) Report available in Spanish and English³.

[Activities in Panama]

- There were some preceding activities supported by PMR and CBIT. Taking into account these activities, a gap analysis of the existing institutional, political, legal, technological framework for the development of a national GHG emissions registry and CO₂e mitigation actions was conducted.
- National workshop for the voluntary national registry of GHG emissions and mitigation and carbon pricing instruments implementation was organized in Nov 2018. Report available in Spanish and English⁴.

[Activities in Paraguay]

- Organized a needs assessment workshop inviting key sectors relevant to carbon pricing and identified priority to enhance MRV system for tracking and reporting the progress of its NDC commitments under three pillars:
 - Improve the quality of historical and future GHG emission and removal estimates in

³<https://unfccc.int/sites/default/files/resource/CI-ACA%20Dominican%20Republic%20Validation%20session%20report%2022%20november2.pdf>

⁴<https://unfccc.int/sites/default/files/resource/CIACA%20WS%20PTY%20Summary%20%20%28En%29.pdf>

priority categories;

- Strengthen the institutional arrangements and instruments for the operation of the national long-term MRV system;
- Create systematization and registration tools to enable robust monitoring of the progress of the NDC.

■ Q&A session

Q1. Osman, Senegal CCNC/WAACMCF: One recommendation from the carbon pricing instruments study in Senegal (wasn't mentioned by Mbaye) is to explore opportunities of sub-regional cooperation. My question is what kind of linkages are there between PMR and CI-ACA?

A1. El Hadji Mbaye Diagne: West African region has an economic community "Economic Community of West African States (ECOWAS)". In the validation session, stakeholders from industrial sectors said they would face competitiveness issue if one country introduces CP and other not in the region. We need to explore possibility to conduct relevant study within the region.

A1. Nicolas Mueller: Yes, we are collaborating.

Q2. Unknown, Solar Engineer: Regarding the case study in Senegal why do you plan to have carbon taxation in some different sectors?

A2. El Hadji Mbaye Diagne: We've explored two sub-sectors: oil and gas production and electricity production. We want Oil and gas production sector to have low carbon or zero flare technologies to reduce GHG emissions by applying carbon tax. As for electricity production, we also want them to introduce renewable energy of other low carbon technologies to reduce GHG emissions.

Q3. Unknown, Korea: Importance of data collection management system was noted in Caribbean case, what about in ASEAN countries where each country has different situation? How to harmonize CP in the region?

A3. Ariel Yu: Fully acknowledging each country has different capacity and status in terms of MRV, we are planning to establish a regional MRV hub to enhance capacity. We see there is a preference among ASEAN countries for ETS to carbon tax except Singapore. Therefore, we will conduct more in-depth study on ETS in next phase of the study.

Q4-1. Policy advisor, university in Australia: Regarding the case study in Senegal, what tax do you plan to remove when starting carbon tax?

Q4-2. Amy, EDF: Question to Mbaye, were you able to get information on level of the carbon tax to actually incentivize Oil and gas companies not to flare?

A4. El Hadji Mbaye Diagne: At this stage, we haven't defined specific level of carbon tax and how to remove or distribute existing taxes. We need additional studies.