

Facilitate, exchange and share experiences and best practices on the assessment of the environmental, social and economic co-benefits of climate change policies and actions informed by the best available science, including the use of existing tools and methodologies

Summary of the submissions received in response to the call for inputs

Mandated workshop on activities 3,4 and 11 of the workplan of the response measures forum
Bonn, 4-5 June 2022



Mandates

- Mandates: (Annex II to decision 4/COP.25, 4/CMP.15 and 4/CMA.2)
 - **Workplan activity 11**- “Facilitate, exchange and share experiences and best practices in the assessment of the environmental, social and economic co-benefits of climate change policies and actions informed by the best available science, including the use of existing tools and methodologies”
 - **Modalities** - “Input from experts, practitioners and relevant organizations”
 - **Estimated timeline** – “SB 55 and SB 57”



Guiding questions

- As agreed at KCI 5, a call for inputs was made on 3 December 2021 for activity 11 requesting Parties and observers to respond to 3 guiding questions:
 - **Guiding question 1:** Which climate change policy(ies) and actions, informed by the best available science, were assessed for environmental, social and economic co-benefits and what were the co-benefits identified from your assessment?
 - **Guiding question 2:** How such assessment was conducted? Were there any standards used? What are challenges and opportunities, and lessons learnt from these assessments?
 - **Guiding question 3:** What actions were/are/will be taken based on the co-benefit assessment and what specific measures taken to maximize the co-benefits if any?



Overview of submissions

- As of 25 May 2022, in total of 9 submissions were received in response to the call.

Submitter	Status of submitter	Followed the guiding questions?	Link to the submission
AT Osborne Comp	Private	Y	AT Osborne Comp.pdf
Bonsucro	NGO	Y	Bonsucro.pdf
ERCST	NGO	Y	ERSCT
Climate Strategies	NGO	Y	Climate strategies.pdf
Ghana	Party	Y	Ghana Submission.pdf
GIZ	NGO	Y	GIZ.pdf
Philippines	Party	Y	Philippines.pdf
Institute for human rights & business	NGO	N	IHRB.pdf
WMO	IGO	Y	WMO



Guiding question 1 – climate change policies and actions assessed

Categories	Climate change policies and actions
National level	<ul style="list-style-type: none"> • National climate change action plan • National climate risk management framework • Climate change policy framework • Low carbon development strategy • National strategy for sustainable development
Sector level	<ul style="list-style-type: none"> • Electricity subsidy reform • Domestic renewable support policies • Energy sector strategic action plan • Sustainable sugarcane production • Organic standards and labelling requirements for agricultural goods and basic materials • Investments in rehabilitation and expansion of irrigation systems
Project level	<ul style="list-style-type: none"> • Development of low temperature heat networks • Redevelopment of former landfills • Industrial ecology in the second large industrial cluster of the Netherlands • Integrated water resource management water • Improved cookstoves, solar lantern • Natural gas recovery and utilization from oil field • Natural gas fuel replacement • Solar PV electrification • Development of Bus Rapid Transit (BRT) • Nuclear power generation
International / regional level	<ul style="list-style-type: none"> • IMO carbon tax on international maritime transport • ICAO carbon tax on international air transport • EU-ETS
Others	<ul style="list-style-type: none"> • WMO - Providing climate information service for adaptation and resilience • Adaptation measures, e.g. investments in windbreaks as a response to heavy winds

Guiding question 1 – co-benefits of climate change policies and actions

- **Environmental co-benefits**

- Water: water saving; reduced water pollution;
- Land use: Sanitation of polluted soil; Less use of green field; Less landscape exploitation and higher landscape values; reduced soil erosion and risk for desertification;
- Others: Reduced nitrogen fertilizer; Conservation of biodiversity;

- **Economic co-benefits**

- Economy-wide: economic prosperity; unlocking economic potential; more resilient economy; industrialization benefited from stable power supply;
- Production: reduced production costs; increased crop yields;
- Income: Increased income of farmers; higher wages for employees;
- Increased tax revenue;
- Improved financial environment;

- **Social co-benefits**

- Jobs: creation of green jobs and decent work; Improved work environment, fewer possibilities of oil accidents and oil spills;
- More resilient society;

- **Others**

- Increased energy security;
 - Health: fewer respiratory related disease, lowered private and societal costs for health problems;
 - Scientific and technical capacity of the nation being enhanced;
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Guiding question 2 – assessment approach and tools

- The **ERCST methodology** to assess and report on socio-economic impacts of response measures
 - Qualitative assessments: interview, survey and literature review
 - Quantitative assessments: modeling tools and cost-benefit analysis
- **The method of co-creation of policies** - Engaging diverse stakeholders and understanding their role in the decision-making process.
- **Social Accounting Matrix** - 55 production sectors were aggregated into 27 sectors for the analysis
- **Country-specific macroeconomic models**
 - Macro-econometric Input-Output (IO) models - three interlinked model parts (economy/energy/emission)
 - Dynamic general equilibrium model
- **A sectoral-wise production standard** (Bonsucro Production Standard) is used for the assessment of environmental and social co-benefits in sugarcane mills and farms certified against the standard.
- **WMO** - Guidance on Good Practices for Climate Services User Engagement; Report on Valuing Weather and Climate: Economic Assessment of Meteorological and Hydrological Services, 2015



On ERCST methodology

- Most measures/tools aiming at alleviating adverse effects can also be used to maximize co-benefits.
- The assessment of co-benefits provides **a motivator for climate actions and support** from different stakeholder groups, including local communities, local authorities, governments and policy makers.
- Needs for more in-depth analysis; quantifying the impacts of the co-benefits for each response measures; and categorizing where the benefits come from.
- The positive impacts of the ancillary benefits in many cases outweigh the costs that response measures might entail.



On Social Accounting Matrix

- The data available in 2015 Social Accounting Matrix used for the assessment might **not reflect the latest changes to the economy**, e.g. level of digitalization, inflation.
- The second-order growth effect approach (static analysis) shows a “snapshot” view rather than a dynamic view of the full project and related industrial impacts over a long-term horizon.

On country-specific macroeconomic models

- **Data** as model inputs needs to be of sufficient quality and regularly updated;
- Any analysis of model results must consider the extent to which these are compromised by inaccuracies in input data and quality of assumptions.
- Challenging to get **know-how from the national experts** and to **coordinate a broad spectrum of agencies**;



On “multiple business cases”

- “Multiple business cases” means the use of single asset for co-benefits which shares the costs of one asset, and often these co-benefits enhance one another (a multiplier).
- However, when financing adaptation actions, financiers see singular business case as low risk and multiple business cases as high risk.

On WMO climate information service

- Monitoring of social, economic and environmental co-benefits remains consistently weak worldwide despite noticeable progress on governance for climate information services.



- **Funding/Finance related (possible actions to be taken):**
 - Develop fund to invest in initiatives and projects;
 - Improve access to sustainability-linked finance;
 - National climate funds
 - Financial aid (e.g. from development cooperation agencies, bilateral support, multilateral development banks).
- **Capacity building:**
 - Joint initiative between WMO and GCF (Climate Science Information for Climate Action) to increase capacity to assess climate services for their potential benefits. Additional assessments of social, economic and environmental benefits will support operationalization and scaling up of climate services



- **Technology related:**
 - Integrating low temperature heat networks with both electricity and gas (biogas and hydrogen gas).
 - Usage of certain types of tree to help sanitize soil in redevelopment of former landfills.
- **Tools related (to counteract adverse impacts):**
 - Safety nets
 - Just transition efforts
 - Economic diversification
 - Domestic carbon markets
 - International offset mechanisms
 - De minimis thresholds (DMT)
- **Others**
 - The modeling assessment identified policies that hold the largest co-benefits and informed the national processes, e.g. the modeling results informed the ongoing development of the low-emission development strategy (LEDS) in Kazakhstan



Way forward 1/2

- Another round of call for input will be issued on the activity after SB 56.
 - ✓ The KCI agreed that inputs don't response to the guiding questions will not be considered by the KCI.
- The KCI agreed to invite experts to its 7th meeting to implement the activity.
- The following key findings and possible recommendations, for consideration at KCI 7, capture the discussions on this activity during KCI 6:

Draft key findings:

1. Both qualitative and quantitative tools and methodologies, including modeling tools, are used to carry out the assessment of the co-benefits.
2. The assessment of co-benefits provides a motivator for enhanced climate actions and support from different stakeholder groups, including local communities, local authorities, governments and policy makers.

Cont.



3. Data availability is one of the challenges when carrying out the quantitative assessment of the co-benefits of climate policies and actions.
4. There is a need for more in-depth analysis, quantifying the impacts of the co-benefits for each response measures, and categorizing where the benefits come from.
5. The positive impacts of the ancillary benefits in many cases outweigh the costs that response measures might entail.
6. The assessment using country specific modelling tools informed the national climate change process (e.g. the development of LEDS) by identifying policies that have the greatest potential for co-benefits.

Draft possible recommendations to the forum (to be included in the next KCI annual report as possible recommendations to the COP, CMP and CMA):

KCI to enhance the capacity of Parties, in particular developing country Parties, to develop and use country specific tools and methodologies to conduct the assessment of the environmental, social and economic co-benefits of climate change policies and actions.



Thank you!

