



# **Asian Co-benefits Partnership (ACP)**

## **13<sup>th</sup> Advisory Group Meeting**

### **Meeting Summary**

**31 January 2023, 15:00-17:00 (JST)**

**Virtual via Zoom**



### **Meeting summary**

On 31 January 2023, the 13<sup>th</sup> Advisory Group meeting of the Asian Co-benefits Partnership (ACP) was held online. Approximately twenty members from government agencies, international organisations, and research institutions joined the meeting and discussed the following: conducting a joint project focusing on integrating co-benefits into the nationally determined contributions (NDCs); and the ACP Work Plan 2022-2023.

The ACP Advisory Group then supported the idea in principle to:

- 1) Initiate a process for publishing a joint report on integrating co-benefits into NDCs starting with preparing its outline based on the meeting discussion; and,
- 2) Complete the work plan 2022-2023 and proceed with implementing its proposed actions

### **Meeting Minutes:**

**15:00 - 15:10 (10 minutes)**

#### **Opening and Introduction**

##### **1. Opening remarks:** Co-chair, Mr. Takashi Ohmura, IGES

The ACP co-chair, Mr. Takashi Ohmura, welcomed participants to the online Advisory Group meeting. He began by introducing the main aims of the meeting: one is to clarify future plans on a new joint project that would draw upon the strengths of members; and the other is to learn about ongoing activities that would support the overall objective of the ACP. The first goal is based on last year's ACP meetings where there was a proposal to focus on encouraging countries to integrate co-benefits into nationally determined contributions (NDCs). This is timely because countries are preparing for updating NDCs before the next scheduled period to share updated NDCs in 2025; it may also help strengthen links between the NDCs and multiple dimensions of the Sustainable Development Goals (SDGs). In terms of ongoing activities, the meeting is expected to share information about, inter alia, plans from the Asian Development Bank (ADB) to launch a tool that help to quantify the SDG benefits; city-level co-benefits activities that Clean Air Asia (CAA) has conducted with Institute for Global Environmental Strategies (IGES); a new report from the United Nations Environment Programme (UNEP) with Stockholm Environment Institute (SEI) estimating the costs of inaction of co-benefits solutions in several countries in Southeast Asia; and efforts led by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) aimed at raising the profile of clean air (and climate co-benefits) under a Regional Action Programme on Air Pollution.

##### **2. Objective of the meeting & Self-introduction by participants:** ACP Secretariat, IGES

As the objectives of the meeting were explained by Mr. Ohmura, Dr. Eric Zusman of the Institute for Global Environmental Strategies (IGES) and the ACP Secretariat asked participants to offer a brief self-introduction.

**15:10 - 16:10 (60 minutes)**

**Discussion 1: Co-benefits in NDCs and other sectoral policies<sup>1</sup>**

Facilitator: Co-chair, Mr. Takashi Ohmura

**1. Introduction**

Dr. Eric Zusman provided a presentation that underlined five key points or advantages from integrating co-benefits into NDCs and other sectoral policies. One is that it could help offset the climate change mitigation costs. Another is co-benefits could bring climate finance to air pollution, health, and other development priorities. A third point is that this integration could streamline climate, air pollution, health, and sectoral planning. A fourth point involves a political economy argument that could build coalitions from different stakeholders around integrated planning. Further, efforts to craft more integrated policies could contribute to enabling environment that help scale up one-off projects. By aiming to work on these five points, ultimately, it is possible to raise ambitions and accelerate actions on climate change and air pollution, health, and other development priorities as countries stocktake for updated NDCs in 2025. Already several countries in Asia are moving in this direction; for example, SEI actively engaged in capacity building work to help move this process forward in Bangladesh and other countries; Thailand is working on new report on integrating air pollution and climate change planning; Mongolia used integrated assessment modelling to strengthen its NDC; China reflects co-benefits in many national laws and policies; and Cambodia incorporates short-lived climate pollutants (SLCPs) into first Clean Air Action Plan.

He flagged that this meeting is aiming to move forward to develop a report in a targeted output that would share the aforementioned existing materials on integrating co-benefits into NDCs and other sectoral policies across countries in Asia as well as contributions from ACP partners. The report could raise the profile of the existing work and also encourage other countries to follow. He pointed out the needs for more targeted support to strengthen the integration such as analysis of new pollutants, especially methane, connections to long-term low emission development strategies, new analytical approaches, and institutional analyses. He also added there is a need for greater alignment between NDCs at the national level, local policies, and actions happening on the ground. For the ACP, this co-published report will hopefully move forward with partners approval and inputs. Lastly, there is a need for greater coordination across countries, international organisations, and research organisations working on co-benefits and related themes and the ACP plays an important role in that regard.

**2. Thailand case**

Mr. Ittipol Pawarmart of the Pollution Control Department (PCD), Ministry of Natural Resources and Environment (MONRE), Thailand shared Thailand's fourth updated NDC. He noted that, firstly, Thailand intends to reduce its greenhouse gas (GHG) emissions by 30 percent from a projected business-as-usual level by 2030. The level of reduction could increase up to 40 percent, subject to adequate and enhanced access to technology development and transfer, financial resources and capacity building support. Furthermore, Thailand will continue its vigorous efforts in its challenge to meet the long-term goal of carbon neutrality by 2050 and net-zero greenhouse gas emission by 2065. Thailand's NDC was developed

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<sup>1</sup> Presentation materials are attached as the Appendix.

through a participatory process involving the establishment of an inter-ministerial working group with participants from chiefly five ministries, including the MONRE, especially its PCD and the Office of Natural Resource, Environment, Policy and Planning (ONEP); Ministry of Energy; Ministry of Transport; Ministry of Agricultural; and Ministry of Industry. There is also a steering committee comprising representatives from relevant sectoral agencies, academia, and the private sector helping to shape the direction of this work.

The Thai NDC was formulated based on the following national plans: 13th National Economic and Social Development Plan 2023-2027, National Energy Plan Framework 2022, Climate Change Master Plan 2015-2050, Power Development Plan 2018- 2037, Thailand Smart Grid Development Master Plan 2015-2036, Energy Efficiency Plan 2018- 2037, Alternative Energy Development Plan 2018-2037, Master Plan for Sustainable Transport System and Mitigation of Climate Change Impacts 2013-2030, National Industrial Development Master Plan 2012-2031, and Waste Management Roadmap. The Thailand NDC roadmap application plan was developed through the established technical working team and sub-committee; it was then submitted 4<sup>th</sup> updated NDC prior to its submission to UNFCCC. He shared his experience in waste sector and emphasised the need for further collaboration with other countries in success and also more training, financial and technical support; for instance, for electric vehicle in transport sector in terms of energy management as well as in agricultural sector. With the creation of a new department, the Climate Change and Environment in the Ministry of Environment, he anticipates seeing more on co-benefits in revisions to the NDC and other policies in Thailand.

### **3. Mongolia case**

A case on the interlinkages between GHGs, air pollutants, and SLCPs in Mongolia was presented by Dr. Dagvadorj Damdin, Climate Change Development Academy Mongolia. He began by explaining that the climate and air pollution activities and measures are still implemented separately and weakly coordinated due the limited understanding of the government officials in Mongolia. He suggested the integrated inventories and assessments of GHG emissions and air pollutants will help policymakers understand these interrelationships and improve efficiencies; in addition, integrated assessments of co-benefits can help align NDC and air pollution planning.

At the same time, Dr. Damdin shared some experiences with collaborative efforts to reduce air pollution and mitigate climate change. For example, he highlighted the results of the integrated analysis with SEI and CCAC to show that the full implementation of Mongolia's NDC would have significant environmental and social co-benefits through improved air quality in Mongolia. This is particularly important since air pollution is a development priority and ambient air pollution in Ulaanbaatar is 6 times higher than the WHO Guidelines. He further noted that analysis finds the full implementation of Mongolia's NDC would reduce black carbon emissions by 14 percent, primary PM2.5 emissions by 15 percent, and nitrogen oxide emissions by 15 percent by 2030 compared to a baseline scenario. In another piece of collaborative work with IGES, colleagues in Mongolia evaluated intervention scenarios of installing solar electricity and solar thermal heaters to replace heat only boilers (HOB). He also highlighted the importance of the series of training conducted by IGES and Kyushu University on the application of new tools for quantification of co-benefits of more efficient HOB and solar energy applications for Mongolian experts and researchers.

Similar to the presentation from Thailand, Dr. Damdin highlighted international support to strengthen

actions on co-benefits. That support includes help to raise the profile and promote the integration from past studies into the NDC process; as well as air pollution and related planning processes and to estimate the reduction potential and impacts of methane. The support for concrete co-benefits demonstration projects in key sectors, especially in buildings, energy, agriculture, and mining, as well as to quantify and integrate co-benefits into national long-term low-emission development strategies were also highlighted.

#### **4. China case**

Dr. Li Liping of the Policy Research Center for Environment and Economy (PRCEE), China was invited to present on China's policies and actions to achieve co-benefits and promote co-control. She emphasised the massive changes that have happened in China since 2020 (and especially last year) in this area. She then highlighted progress at the national level and the local level, noting that China considers pollution prevention and control as an integral part of the response to climate change. In this connection, China is actively integrating the goals of a peak CO<sub>2</sub> emissions and carbon neutrality into the overall plans for promoting eco-environmental progress and socioeconomic development. Efforts to reduce pollution and CO<sub>2</sub> emissions are planned and moving ahead quickly.

Many of the above changes are most visible in China at the national level. China introduced more than 60 laws and regulations that include co-benefits and co-control. The growing emphasis on co-control is particularly evident in the Implementation Plan for Synergizing Reduction of Pollution and Carbon Emission enacted in June 2022. It is also apparent in the One+N Policy Framework that aims to achieve a peak in carbon dioxide and carbon neutrality by strengthening upstream interventions at the source (such as ecological environment zoning control and enhancing the implementation of pollution and carbon reduction in key areas (i.e. industry, transport and urban and rural construction)). In addition, China is making efforts to reinforce the synergies between environmental pollution control measures of air, water, soil and solid waste pollution and carbon reduction measures to improve environmental quality. It further aims to encourage key regions, cities, parks and enterprises at different levels to serve as demonstration cases for synergizing pollution reduction and bringing down carbon emissions. In yet another example, China is working to pilot the coordinated management of the Three-Line-Plus-One List" in 16 cities. Other actions China is introducing include the overall consideration of climate change factors while analysing ecological and environmental implications of 17 pilot policies and 7 pilot industrial parks across China. At the local level, there are over 500 regulations and related practices involving Environment Impact Assessment to Carbon Assessment that could have implications for co-benefits and co-control.

In summary, policies and actions that aims to achieve co-benefits and co-control in China cover four dimensions: environmental, economic, social, and international. Working across these dimensions, China will aim to incorporate peak carbon emissions and carbon neutrality into the overall vision of an ecological civilization and economic and social development. The assessment of co-benefits to develop a methodology and tools, practical pilots, training at the local level, and international cooperation are also needed.

#### **5. Other cases in Asia**

Dr. Chris Malley of SEI presented a paper developed by SEI and the CCAC analysing how SLCPs and air pollutant mitigation have been included within NDCs. The paper highlighted how countries are explicitly and implicitly including SLCPs and air pollutant control in NDCs; and points to some best practice examples

from other regions illustrating this integration. The paper extracted 294 NDC and assessed the NDCs in terms of framing, targets, and mitigation measures. It showed how countries generally acknowledge the potential for co-benefits from air pollution, SLCPs and mitigation. One way they do so is by setting specific targets on SLCPs and air pollution, and then analysing the inclusion of mitigation measures that deliver co-benefits (regardless of whether a country actually acknowledged or identified that co-benefit).

The paper demonstrated that a significant number of examples of countries have explicitly included co-benefits within their NDCs. Those countries can provide motivation and inspiration to other countries who are looking to do the same thing. For instance, Nigeria became the first country in the world to state quantitatively how much NDC could improve human health; Nigeria's climate change plan is not just a climate change mitigation strategy but a public health plan. There are fewer countries that have actually set explicit targets to reduce SLCPs, and Columbia is one of them. It set a target for a 40 percent reduction in black carbon emissions compared to 2014 level, the most ambitious but also achievable black carbon target in the world.

He pointed out that there has been a huge increase in the inclusion of mitigation measures that could achieve co-benefits. For example, the number of countries that have explicitly aimed to achieve climate change mitigation through the increased penetration of electric vehicle doubled between the Paris agreement and COP 26. There are also notable efforts within NDC getting up to 60 percent for measures that will have the air pollution benefits such as increasing public and active travel. In addition, there are actions that could benefit more including them in their NDC: for example, reducing waste generation or diverting waste relatively could deliver sizable benefits. It is as important as acknowledging SLCPs and climate pollutants within the NDCs itself, but being explicit and detailed about the measures that will achieve climate change plans will help achieve them. Dr. Malley also mentioned the analysis on full implementation of methane-focused mitigation measures. The 150 countries signed on to the Global Methane Pledge to reduce global methane by 30 percent but with no roadmap to achieve the pledge itself. His team is looking at all of the 482 methane mitigation measures in NDCs to identify how much, if they are all implemented to their fullest extent, they could reduce methane and found that a 30% reduction could be achieved. Capturing those gains require greater action from countries that have signed up for Global Methane Pledge as well as countries that have not joined the pledge.

## **6. Discussion**

When all presentations prepared on the integration of co-benefits into NDCs were delivered, Mr. Ohmura invited participants to ask questions or share comments. He started by asking Dr. Li what methodologies the government in China consider to manage pollution and estimate co-benefits. Dr. Li responded that the most important fact is China has incorporated the concept of co-benefits and co-control into its policies, and there is a clear recognition for the need to quantify these co-benefits.

Dr. Yeora Chae of Korea Environment Institute (KEI) was pleased to see that co-benefits have been analysed and quantified in many countries; however, she felt more work needs to be done to ensure the uptake of these results in real-world policies. She argued that, especially in Korea, only a limited number of policies intend to maximise co-benefits—although the concept of co-benefits has been expanded to include not only links between air pollution and climate mitigation but also climate adaptation and sustainable development. Dr. Chae highlighted a need to find multi-functional policies and to collect best practice examples of actual multi-benefit policy designs as part of an effort to construct a policy library.

Mr. Bjarne Pedersen of Clean Air Asia (CAA) commented on several points to understand where the ACP might leverage its resources based on the presentations. First, he noted the need to integrate co-benefits into policies and practices and also understand the state of those practices. Second, he underlined the importance of being able to quantify and assess the benefits of implementation of co-benefits. Finally, linked to the sharing co-benefits practices, he suggested the need for understanding which technologies can deliver co-benefits and what technologies can be transferred toward those ends. Besides these points, there could be two more ways that co-benefits can be taken forward: one is a need for education and public awareness to support the implementation of co-benefits; the other is for capacity building at multiple levels in the support of implementation of co-benefits. He suggested to focus on these needs.

Dr. Supat Wangwongwatana, co-chair of ACP added his comment for the fourth Thailand's NDC. He noted that co-benefits are not integrated into policies and measures under the NDC i.e. benefit to air quality reduction and climate change mitigation. Also, as the co-benefits have not been quantified, the next step should to quantify results and the outcome from the the supporting national action planning (SNAP) could be the trigger for the next NDC; he further pointed to the need for co-benefits to be mainstreamed into these policies.

Dr. Eric Zusman expressed his appreciation to all presenters. He noted that there has been clear progress on co-benefits in Asia. At the same time, there is scope for the more explicit integration of co-benefits rather than their implicit recognition in, for instance, NDCs. Also, there could be a stronger recognition of the links the inclusion of co-benefits in NDCs/policies and implementation on the ground. For implementation to happen, there is a need to understand implementation gaps and how they can be filled. Filling these gaps will require connecting the research on policy with capacity building and awareness raising. He concluded by suggesting that the ACP Secretariat develop an outline for the joint report that highlights these points.

**16:10 - 16:55 (45 minutes)**

### **Discussion 2: Update work plan**

Facilitator: Co-chair, Dr. Supat Wangwongwatana, Thammasat University

- 1. Overview of recent activities promoting co-benefits**
- 2. Summary of achievement of Work Plan 2022-2023**
- 3. Discussion on future Work Plan**

Dr. Supat Wangwongwatana, ACP co-chair, opened the second session to understand recent activities promoting co-benefits among ACP advisory group members as well as the update the ACP work plan.

Mr. Virender Kumar Duggal of ADB reported on its newly developed methodology and toolkit for the quantitative assessment of the sustainable development impacts of climate action. The methodology, for both adaptation and mitigation, conducts a three dimensional (i.e. environmental, social, and economic assessment) of any climate action and covers a broad spectrum of sectoral coverage of the climate action, namely, energy, waste, water, transport, industry, land use etc. It identifies eight impact areas and six indicators for broad set of metrics to look at a particular project from various aspects. Those sustainable development impacts are linked to various SDGs so as to assess how the individual climate action is contributing to the SDGs. He aims to make this tool available as a public good so that a wide range of

stakeholders could take advantage of it; for example, the policymakers operationalise international carbon markets could utilise the tool to look at whether a particular climate action contributes to the national context. Anyone who is utilising this tool could actually get a project specific report and then present to the different stakeholders to underline the additional contributions of a project. He thinks the real benefit of using the tool is to get quantitative results of the impacts and the other benefit is that the users could actually make a comparison between what were the intended as the impacts of particular climate action and actually implemented. The toolkit allows the user to determined how individual climate action and the impacts contributing to different SDGs. He announced to share the tool with members as well as to plan to present to policymakers responsible for operationalizing Article 6 in their respective jurisdictions. A series of capacity building workshops are also provided shortly.

In response to Dr. Eric Zusman's question on the form of the toolkit, he elaborated the toolkit is only available only as an excel sheet, however, will soon be available over the internet. For the question followed by Dr. Supat Wangwongwatana for the plan to promote the use of the tool in a wider space, Mr. Virender Kumar Duggal responded that, for the first year, it focuses to policymakers and stakeholders in different countries, then, there will be a series of webinars to enhance the familiarity with the tool and disseminate its use in wider audiences.

Mr. Nathan Borgford-Parnell of Climate and Clean Air Coalition (CCAC) expressed his appreciation for the ADB's toolkit development that could benefit CCAC's work in the future. He reported specifically the progress of the Global Methane Pledge to enhancing action on methane supporting the 150 countries CCAC is calling the Methane Roadmap Action Programme to provide direct support to countries to develop a roadmap, help countries baseline their existing commitments on methane, and then translate those commitments into real implementation and action within this decade. There will be a workshop in Paris and also a series of online workshops are planned. Another important activity is to support broader application of co-benefits, the CCAC is mandated for the first time to develop an air pollution flagship program more broadly than the black carbon components of air pollution, SLCP measures and activities that CCAC covered under the last decade. It focuses the resources and attention of the coalition on a particular topic to achieve transformative change and co-benefits are the major component of this work, particularly the public health and ecosystem co-benefits. The CCAC is planning to host its annual meeting in May in Bangkok, convening with partners and conduct a series of consultations and discussions around this work program.

He echoed his support for all the activities previous speakers mentioned and agreed the importance of bringing co-benefits into climate policies and NDCs. However, he pointed out that the Asia-Pacific region is more than any other region where incredibly active regional transboundary air pollution cooperation exist both in terms of multilateral and sub-regional agreements and also activities on the ground. And he suggested it should be in the air pollution management and control sector where more focus needs to be put on the co-benefits of those activities because there are many examples of climate actions could achieve co-benefits for air quality and public health.

Dr. Supat Wangwongwatana was pleased to collect activities of CCAC and encouraged partners to fill in the work plan table the ACP Secretariat distributed before the meeting. Since the CCAC raised the issue of the regional transboundary pollution, he invited ESCAP to share related activities such as its ministerial declaration on protecting the planet through cooperation.



Mr. Curt Garrigan of ESCAP agreed that there is many regional cooperation both sub-regional initiatives across Asia-Pacific and region wide initiatives, such as, some member states in the ESCAP region that are office signatories to the European convention and transparent air pollution administered by the sister regional commission. There are two specific resolutions for regional cooperation: the ESCAP Resolution is at the ESCAP level that encouraged regional corporation to tackle the air pollution challenge in Asia and Pacific and it gave ESCAP the mandate to focus and provide more visibility on this issue, and the other is General Assembly Resolution to designate the International Day of Clean Air for Blue Skies and has three regional commemorations. ESCAP also organised a series of sub-regional dialogues leading into the consultation for the regional action programme and those elements are to be considered in regional modality are: air quality standards, exchange of best practices, capacity building, open data sharing and the commitment to long term multilateral cooperation as the basis.

He then elaborated on those elements: first is on the improvement of air quality management looking at national ambient air quality standards in legislation and reviewing existing standards; second is to encourage the existing regional and sub-regional institutions and their scientific committees to strengthen cooperation; third is to carry out an assessment of the impact of various air quality management policies; fourth is compiling data on best practices on the implementation of air quality management policies (the activities of ACP mentioned in the document as one of those organisations which the regional action programme engage); fifth is on the facilitation of capacity building and technical support for national action and identify areas where countries needs assistance; and finally is the mobilisation of the commitment to multilateral cooperation such as strengthening the existing platforms that exist both at the sub-regional and regional level and identifying major groups, national experts and bringing them together to help implement. The main activity of the ESCAP is a High-Level Forum on Clean Air will be organised in Mongolia in March to focus at a high level on how to operationalise the action plan programme. He expects this forum starts to talk about how the countries come together through the establishment working group and utilise the existing platform.

Dr. Supat Wangwongwatana confirmed that Mr. Curt Garrigan helpfully elaborated on the point raised by Mr. Nathan Borgford-Parnell that this region focused on air quality management and asked whether it would be possible to integrate co-benefits or SLCPs into the regional action programme. Mr. Curt Garrigan responded by saying that SLCPs are actually included throughout the discussion with a series of nine consultations of member States leading to the program. All five areas presented are related to SLCPs but it is how the member States want to prioritise implementation. Dr. Supat Wangwongwatana stressed that the SLCP should be explicitly indicated into the action programme.

Ms. Kaye Patdu of UNEP announced that UNEP will also participate in the High-Level Forum on Clean Air hosted in Mongolia by UNEP. She further noted that UNEP is planning to organise a clean air event as part of the CCAC annual meeting in Bangkok in May that ACP could contribute to as well. The one of the inputs she reported was the UNEP's work on the assessing the cost of in action in air pollution and recognising co-benefits of it for a few Asian countries. The national assessment that has been conducted now covers four countries in Southeast Asia and the results could be possibly shared during the meeting in May. There is also a guide under development by IIASA on economic evaluation and data on cost of in action and air pollution and the results also be shared during the event. She encouraged the ACP members to join both events. In terms of the joint report on NDCs, she suggested to put it as part of the work plan and consider the most appropriate milestones within this year and next; then, there will be the greater outreach in terms of communicating the messages that the report would deliver.

Dr. Ramlal Verma of the Regional Resource Center for Asia and Pacific (RRC.AP) shared the activities RRC.AP has been implementing, beginning with the Secretariat role for the intergovernmental network of Malé Declaration. RRC.AP developed a work plan having the ten objectives and forty activities; the work plan those has incorporated the co-benefit approach and it was approved by the intergovernmental meeting organised last year. He updated the work on revising declaration to accommodate changes in the region since it has been issued almost two decades ago. RRC.AP along with the countries of Malé Declaration developed a paper that explains the needs of the revision and the contents that should be covered and an agreement that shows how the Declaration has to be revised. The revised draft of Declaration will be circulated to the governing council early this year. The other major activity he updated was the five-day workshop on air quality management where total of seventeen countries participated from member countries of the Malé Declaration and ASEAN. It was successful workshop through providing training and capacity building on monitoring, modelling air quality as well as policy guidance.

Dr. Eric Zusman raised a question whether this Malé Declaration is coordinated with the work of the regional programme that ESCAP. Dr. Ramlal Verma answered that he is exploring its coordination with ESCAP and also in discussion with CCAC. Other partners also support to bring all the potential stakeholders and partners together. Dr. Supat Wangwongwatana added that this is a major issue in the Asia-Pacific region that there are many initiatives but still limited coordination: he hopes that the ESCAP's activities will help bring those initiatives together.

Ms. Dang Casanova of Clean Air Asia (CAA) shared her support for all the initiatives that the ACP partners are conducting and outlined CAA's continued activities especially on localizing its initiatives which support regional frameworks and international commitments. CAA have been working with city governments and national governments in the strengthening of ambient air quality standards and emission standards, supports the development of air quality management roadmaps, SLCP national action plan for the Philippines, and the methane roadmap for Pakistan. CAA continues to work with different ministries for horizontal and vertical integration of policies with regards to air quality and climate change. Co-benefits sits in the centre of CAA's messaging to empower and encourage government to maximise available resources for emission reduction of key sectors. Also, CAA has expanded its activities with Southeast Asian, South Asian, and Chinese cities in air and climate action planning and implementation. For instance, over the last two years, CAA has provided infrastructure and technical support for setting up air quality monitoring networks in cities, and developing roadmaps for its sustainability. The work has emphasized the integrated approach to monitoring pollutants to inform sector specific measures. The next step for CAA is to continue to help cities in determining the cost benefits of measures and support cities to achieve optimal emission reductions, develop financing plans to support project proposal development for potential financing, and develop technology roadmaps as a basis for co-innovation. Regarding outreach and partnerships, CAA continues to participate in regional and international workshops and policy dialogues, provides trainings, and facilitate regional knowledge exchange including at the Better Air Quality Conference planned for later this year.

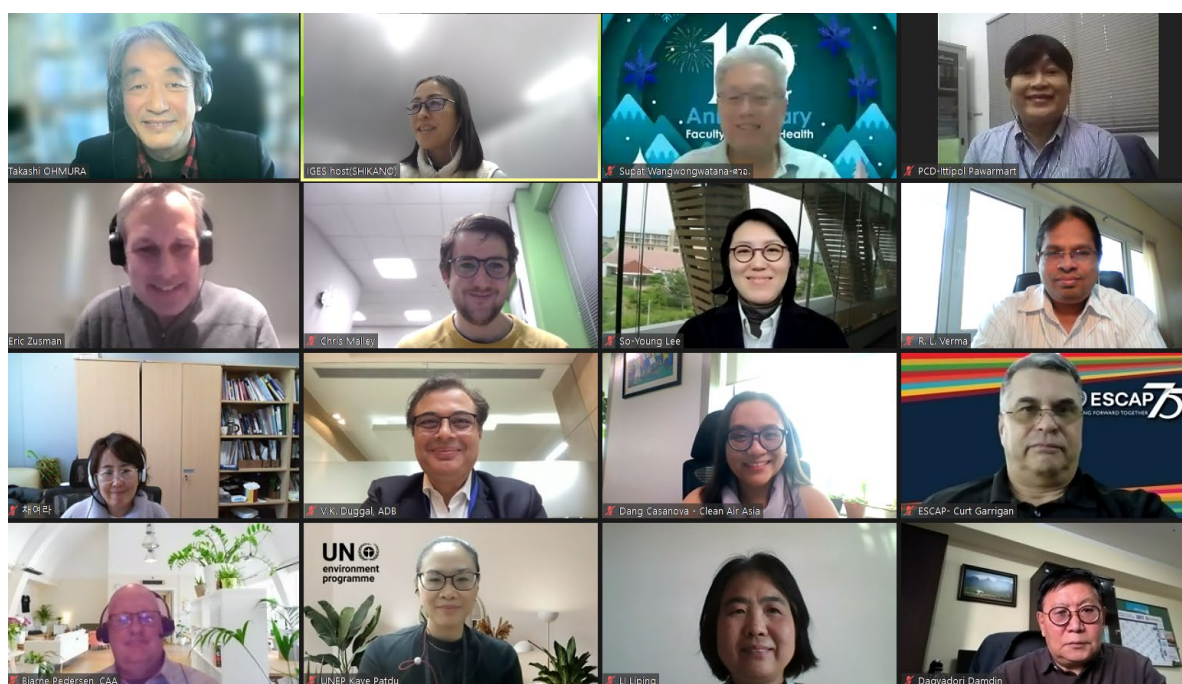
After the updates from the participants, Dr. Supat Wangwongwatana concluded the second section of the meeting, noting the activities of last year but also mentioned about those in the coming year. He again requested all to fill in the work plan table and the Secretariat would work on finalising.

**16:55 - 17:00 (5 minutes)**

### **Next Steps and Wrap Up**

The Secretariat summarised the conclusion of the meeting including a few tasks to move forward. The meeting has shown a significant amount of activities on co-benefits happening at the regional, national, and on the ground i.e. city level and project level including a tool development. The joint-report will be on integrating co-benefits into NDCs and other sectoral policies along with some of the experiences that are ongoing or completed within Asia. It will also have some discussion at the end of the report to not only look at the climate entry point but also look at the air pollution entry point as this is increasingly important in the region of Asia. It will underline how those regional initiatives within the UN and the regional frameworks as well as those of local actions and the project-based actions could support and strengthen national level implementation. Participants are encouraged to update the ACP work plan table, put the joint-report as part of the work plan, and consider how to achieve impacts through the report to spread the knowledge on the integration of co-benefits into NDCs and other sectoral policies. The Secretariat will share the outline of the report following the meeting summary.

### **Meeting Photo**



### **Meeting Agenda**

**13<sup>th</sup> Asian Co-benefits Partnership Advisory Group Meeting**

**31 January 2023 15:00-17:00 (JST)**

Virtual via Zoom

15:00 – 15:10	<p>■ <b>Opening and introduction</b></p> <p>1) Opening remarks: Co-chair, Mr. Takashi Ohmura</p> <p>2) Objective of the meeting: ACP Secretariat, IGES</p> <p>3) Self-introduction by participants &amp; Group photo</p>
15:10 – 16:10	<p>■ <b><u>Co-benefits in NDCs and other sectoral policies</u></b></p> <p><i>Facilitator: Co-chair, Mr. Takashi Ohmura</i></p> <p>1) <b>Introduction:</b> Takashi Ohmura and Eric Zusman</p> <p>2) <b>Thailand case:</b> Ueno Ittipol</p> <p>3) <b>Mongolia case:</b> Damdin Davgadorj</p> <p>4) <b>China case:</b> Li Liping</p> <p>5) <b>Other cases in Asia:</b> Chris Malley</p> <p>6) <b>Discussion:</b> How can we support the integration of co-benefits into NDCs and other policies</p>
16:10 – 16:55	<p>■ <b><u>Update Work Plan</u></b></p> <p><i>Facilitator: Co-chair, Dr. Supat Wangwongwatana</i></p> <p>1) <b>Overview of recent activities promoting co-benefits</b> ADB co-benefits tool and blue skies programme / CCAC support for co-benefits / UNEP ROAP, APCAP and Issue based coalition / IGES climate SDGs synergies etc.</p> <p>2) <b>Summary of achievement of Work Plan 2022-2023</b></p> <p>3) <b>Discussion on future Work Plan</b></p>
16:55 – 17:00	<p>■ <b>Next steps and wrap up</b></p> <p><i>Dr. Supat Wangwongwatana, ACP Secretariat</i></p> <p>Summary of discussion and the next step</p>

### **Meeting Participants**

	Organisation	Name	Title, Division
1	Ministry of the Environment, JAPAN	Ko Matsuura	Section Chief, International Cooperation Office, Environmental Management Bureau
2	Policy Research Center for Environment and Economy (PRCEE), Ministry of Ecology and Environment, CHINA	Li Liping	Division Director
3	Ministry of Natural Resources and Environment, THAILAND	Ittipol Pawarmart	Head of Automotive Emission Laboratory, Air Quality and Noise Management Bureau
4	Ministry of Environment and Forestry, INDONESIA	Noor Rachmaniah	Deputy Director for Domestic Water
5	Climate change and Atmosphere research, Korea Environment Institute (KEI), ROK	Yeora Chae	Chief Research Associate
6	[Co-chair] Thammasat University	Supat Wangwongwatana	Senior Expert, Faculty of Public Health

7	[Co-chair] OECC/IGES	Takashi Ohmura	Senior Fellow
8	Regional Resource Center for Asia and Pacific (RRC.AP)/AIT	Ramlal Verma	Head of Air Pollution Cluster
9	Asian Development Bank (ADB)	Virender Kumar Duggal	Principal Climate Change Specialist
10	Clean Air Asia (CAA)	Bjarne Pedersen	Executive Director
11	Clean Air Asia (CAA)	Dang Espita-Casanova	Programme Manager
12	Stockholm Environment Institute (SEI)	Chris Malley	Senior Research Fellow
13	Climate & Clean Air Coalition (CCAC)	Nathan Borgford-Parnell	Scientific Advisory Panel and Science Affairs Coordinator
14	UN Environment Programme (UNEP)	Kaye Patdu	APCAP Coordinator
15	UN Economic and Social Commission for Asia and the Pacific (UN ESCAP)	Curt Garrigan	Chief, Environment and Development Division
Observer			
16	Climate Change Development Academy Mongolia	Davgadorj Damdin	Director
ACP Secretariat			
	Institute for Global Environmental Strategies (IGES)	Eric Zusman	Research Leader
		So-Young Lee	Research Manager

### Introduction



*ACP Secretariat, IGES*

**January 31, 2023**

### What is Happening in Asia?

Already several countries moving in this direction...

- Thailand working on new report on integrating air pollution and climate change planning
- Mongolia used integrated assessment modelling to strengthen NDCs
- China reflects co-benefits in many national laws and policies
- Cambodia incorporate SLCPs into first Clean Air Action Plan

### Integrating Co-benefits into NDCs and Sectoral Policies

Why....

1. Can help offset climate mitigation costs
2. Bring climate finance to air pollution, health and other development priorities
3. Streamline climate, air pollution, health, and sectoral planning
4. Build political-economic coalitions around integrated planning
5. Contribute to enabling environment that can scale up one-off projects

Ultimately the above will...

- Raise ambitions and accelerate actions on climate change, air pollution, health and other development priorities as countries stocktake for updated NDCs
- Help achieve Paris Agreement 1.5C degree goals and SDGs

### What is Needed to Spur More Action?

- ACP and Co-published Report → Targeted output that share experiences with integrating co-benefits into NDCs and sectoral policies across countries in Asia
- Targeted support to strengthen the integration of co-benefits into NDCs and other sectoral policies (i.e. analysis of new pollutants; connection to LT-LEDs; new analytical approaches; and institutional analyses)
- Greater alignment between NDCs/policies, local policies and concrete on-the ground projects
- Greater coordination across countries, international organizations, and research organizations working on co-benefits and related themes

## THAILAND'S 4TH UPDATED NATIONALLY DETERMINED CONTRIBUTION

**Ittipol Pawarmart**

**Environmental Officer**

Pollution Control Department

Ministry of Natural Resources and Environment

Bangkok, Thailand

31 January 2023

### NDC PREPARATION :

Thailand's NDC was developed through a participatory process by establishment of an inter-ministerial working group and steering committee comprising representatives from relevant sectoral agencies, academia, and the private sector. The NDC was formulated based on the following national plans:

- 13th National Economic and Social Development Plan 2023-2027
- National Energy Plan Framework 2022
- Climate Change Master Plan B.E. 2558-2593 (2015-2050)
- Power Development Plan B.E. 2561-2580 (2018- 2037)
- Thailand Smart Grid Development Master Plan B.E. 2558-2579 (2015-2036)
- Energy Efficiency Plan B.E. 2561-2580 (2018- 2037)
- Alternative Energy Development Plan B.E. 2561- 2580 (2018-2037)
- Master Plan for Sustainable Transport System and Mitigation of Climate Change Impacts (2013-2030)
- National Industrial Development Master Plan B.E. 2555-2574 (2012-2031)
- Waste Management Roadmap

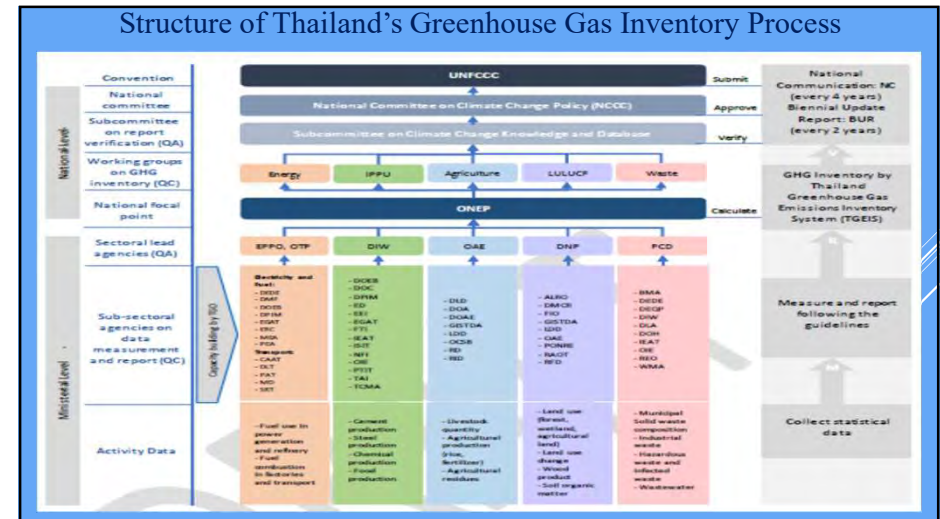
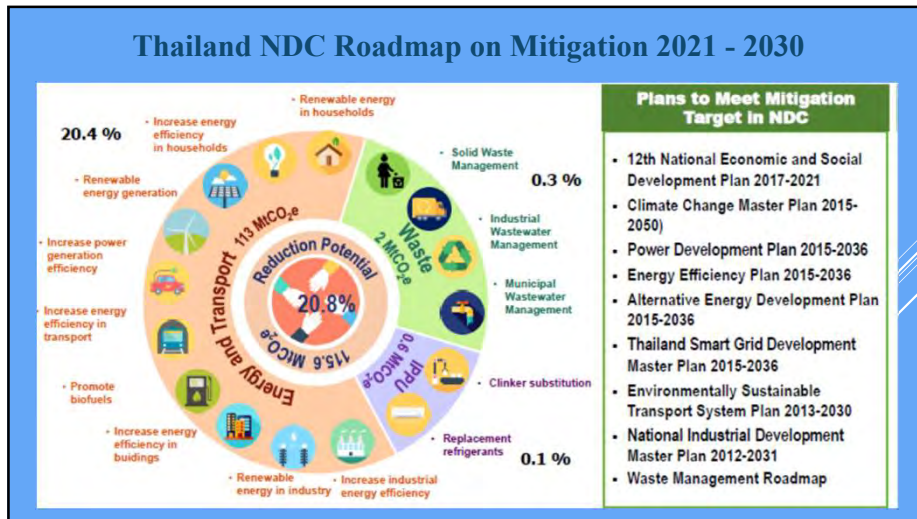
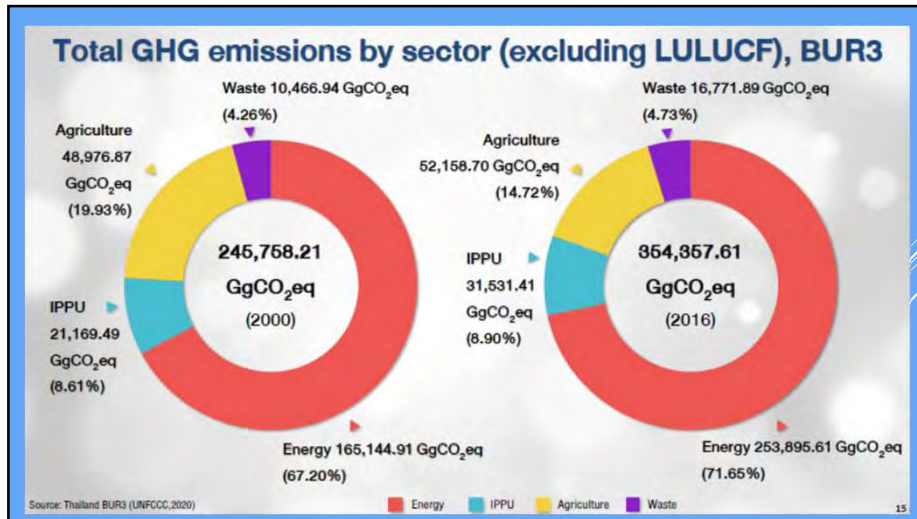
### MITIGATION COMPONENT

- ▶ Thailand intends to reduce its greenhouse gas emissions by 30 percent from the projected business-as-usual (BAU) level by 2030.
- ▶ The level of contribution could increase up to 40 percent, subject to adequate and enhanced access to technology development and transfer, financial resources and capacity building support.
- ▶ Furthermore, Thailand will continue vigorous efforts in its challenge to meet the long-term goal of carbon neutrality by 2050 and net-zero greenhouse gas emission by 2065.

### National GHG emissions/Removals by Sectors from 2000 - 2018

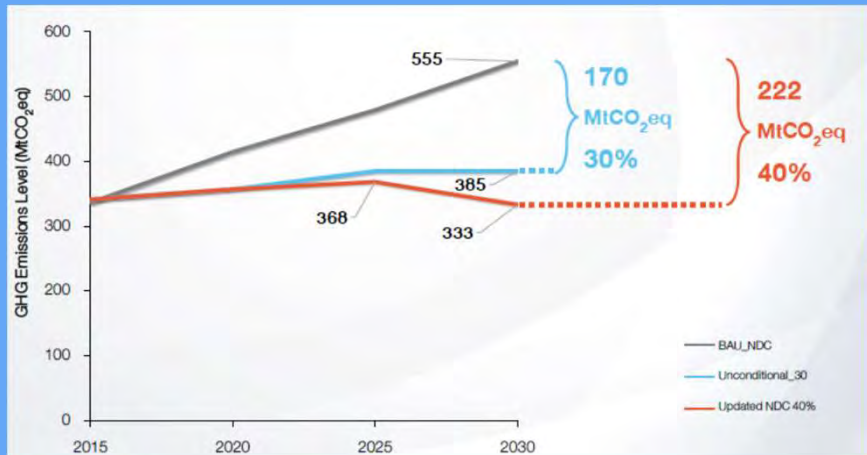








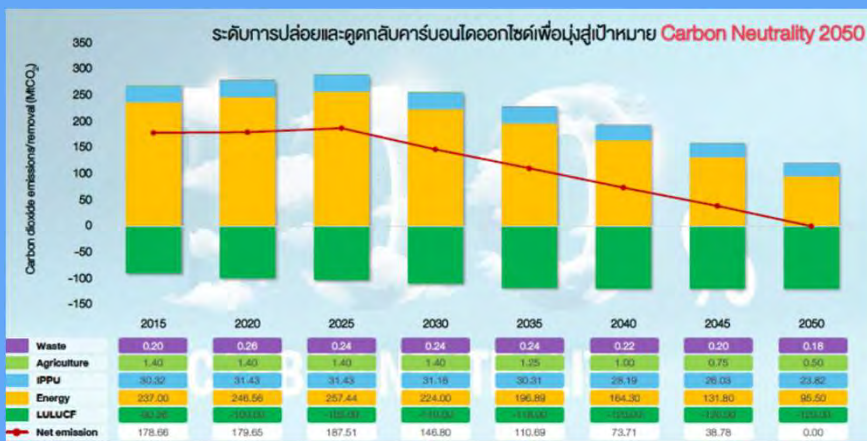
### The update of the 4<sup>th</sup> NDC of Thailand with 40% GHG reduction in 2030



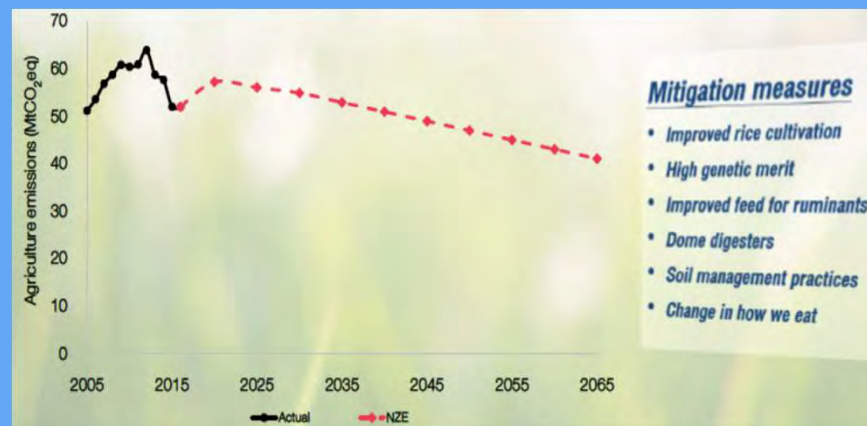
### Thailand's Long-term Low Greenhouse gas emission development strategy



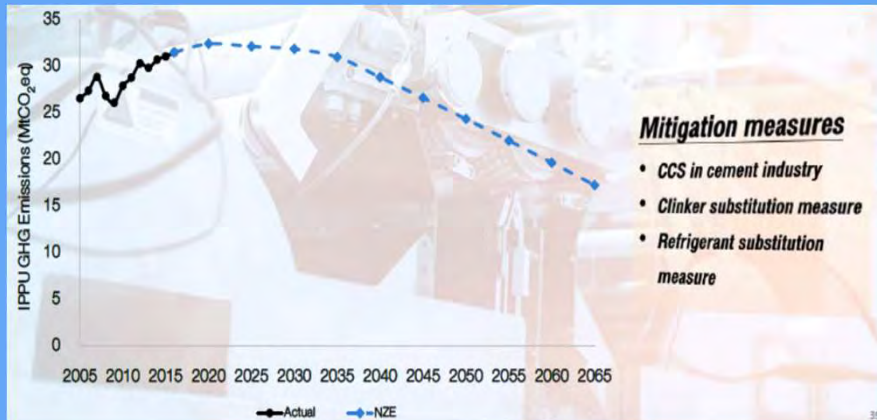
### Target of Carbon Neutrality in 2050



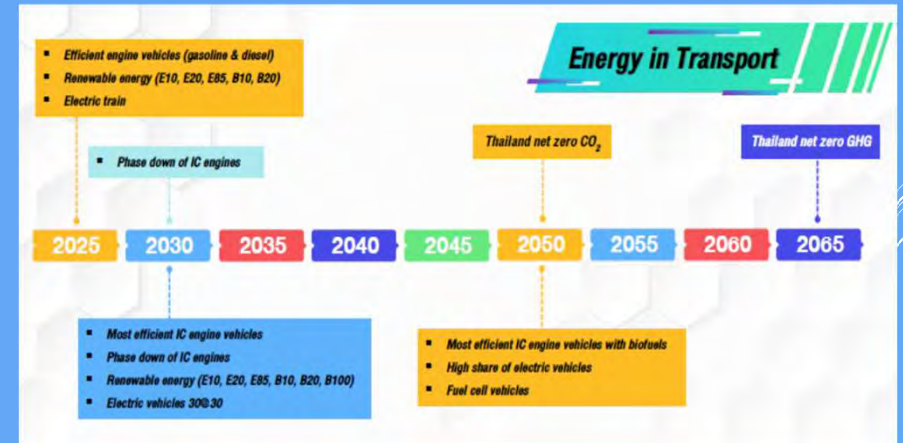
### NZE 2065 Pathways in Agricultural Sector



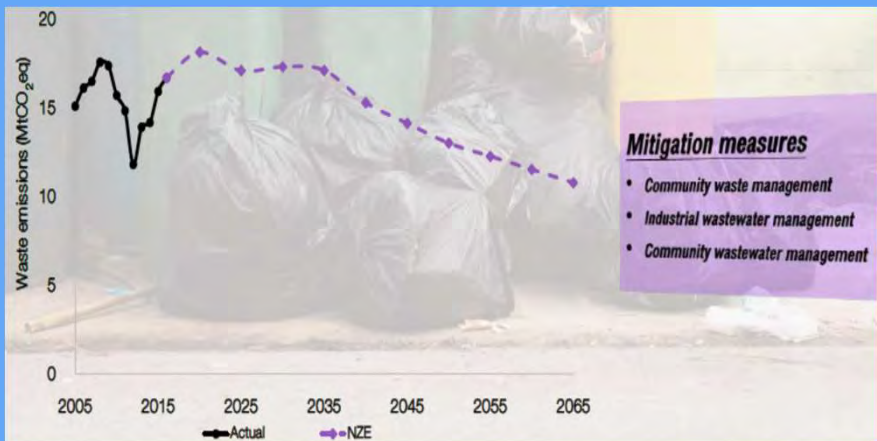
### NZE 2065 Pathways in IPPU Sector



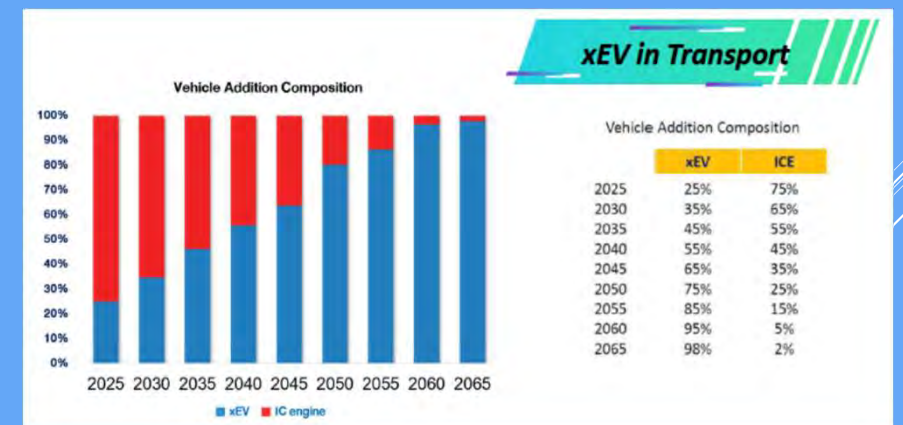
### NZE 2065 Pathways in Transport Sector



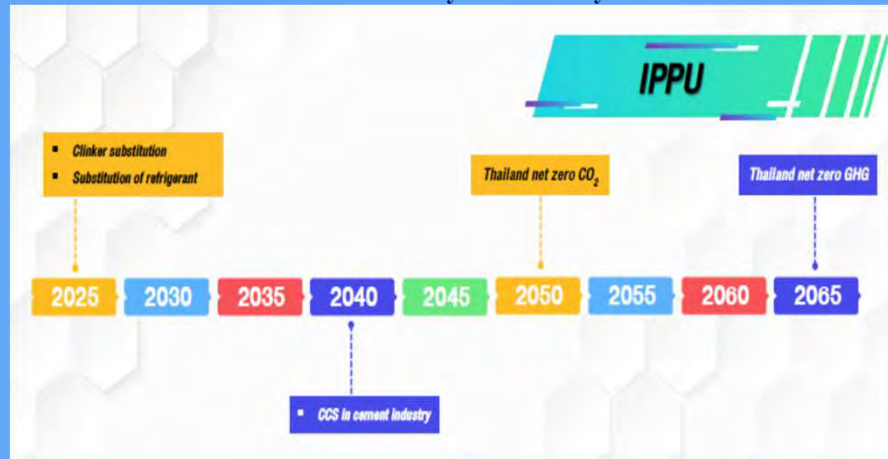
### NZE 2065 Pathways in Waste Sector



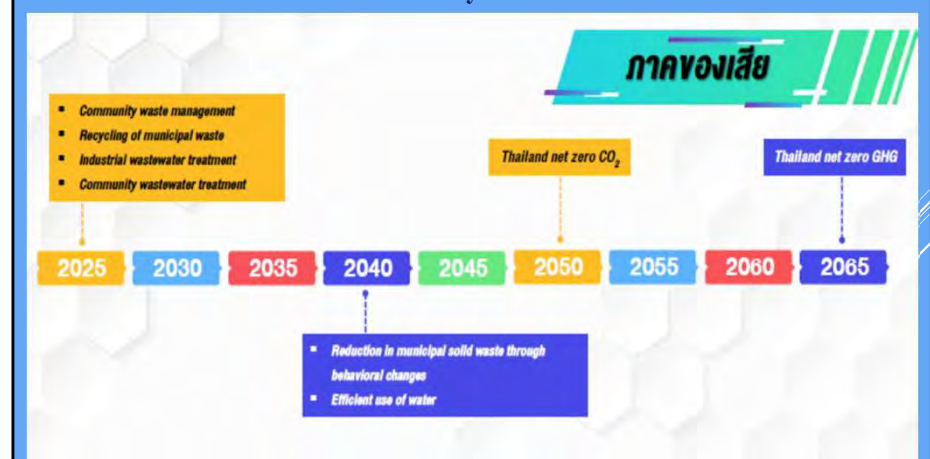
### Road Map of EV in Thailand by 2030 : Campaign



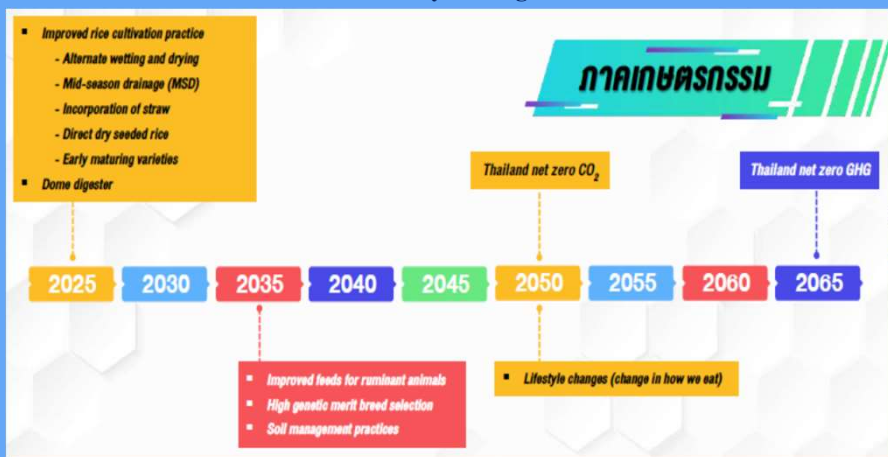
### NZE 2065 Pathways in Industry Sector



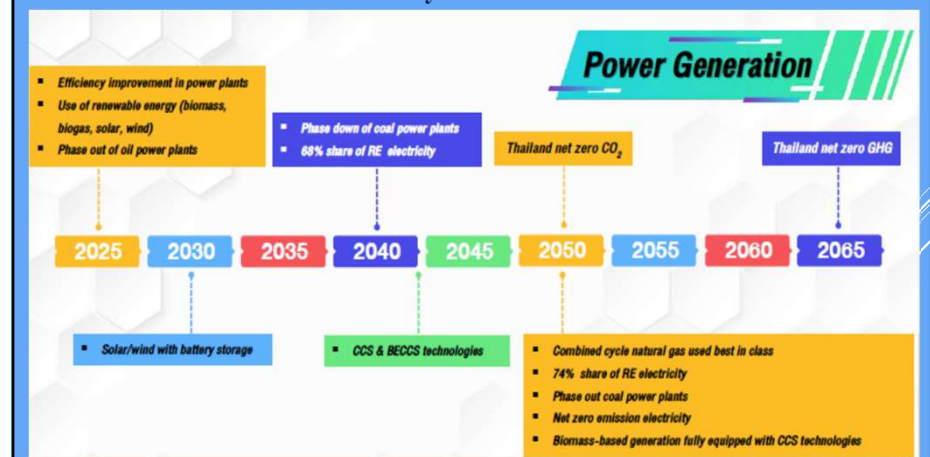
### NZE 2065 Pathways in Waste Sector



### NZE 2065 Pathways in Agricultural Sector



### NZE 2065 Pathways in Power Generation Sector





## NZE 2065 Pathways in Energy Sector



Thank you very much for your kind attention

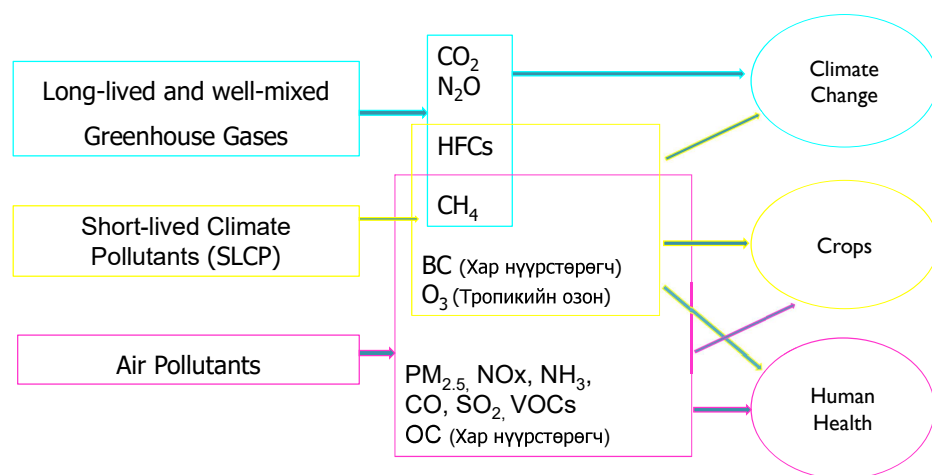
Email : [ittipol.p@pcd.go.th](mailto:ittipol.p@pcd.go.th)

## Co-benefits of implementation of NDCs and air pollution reduction policies: Case studies in Mongolia

Dagvadorj Damdin (Sc.D)

Climate Change-Development Academy, Mongolia

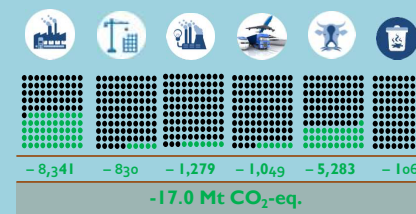
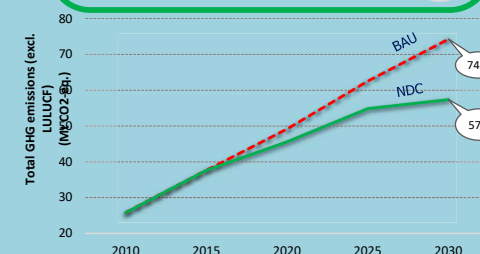
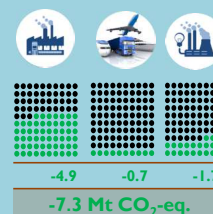
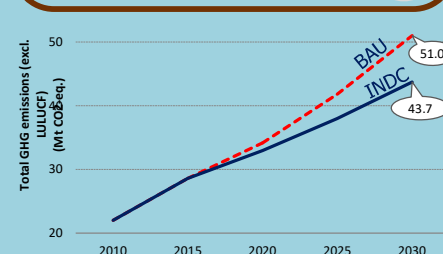
### Interlinkages between GHGs, air pollutants and SLCPs, and their impacts



## Using co-benefits to align NDC and air pollution planning

- National and city level programmes and plans on climate change and air pollution have multiple climate, air quality and health benefits
- There is a need to capture synergies and coordinate relevant activities.
- Climate and air pollution activities and measures are still implemented separately and weakly coordinated.
- Efficiency and final outcomes/outputs are low and insufficient.
- Integrated inventories and assessments of GHG emissions and air pollutants will help policymakers understand interrelationships and improve efficiencies.
- Integrated assessments of co-benefits are important to align NDC and air pollution planning.
- Raising profile and promoting integration of existing studies into NDCs and air pollution planning (i.e. national programme on reducing air pollution) can strengthen alignment and increase efficiencies.

### Climate Change Mitigation: NDC Targets of Mongolia

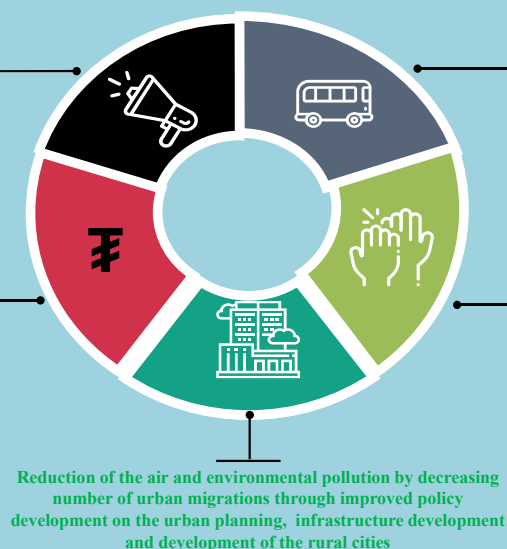


## NATIONAL PROGRAMME ON REDUCING AIR AND ENVIRONMENTAL POLLUTION

5 goals, over 60 actions.

Improvement and more public engagement to be more responsible and practice environmentally friendly lifestyle. Strengthening environmental pollution monitoring system and encouraging high-quality research work

Improving the planning process of the management, coordination and financial aspects of the air and environmental pollution and create a system that encourage and incentivize pollution reduction activities



Set up more complex and comprehensive actions towards reducing the emission from transport

Reduce the pollution source by introducing more eco-friendly technology and reduce the usage of raw coal

Reduction of the air and environmental pollution by decreasing number of urban migrations through improved policy development on the urban planning, infrastructure development and development of the rural cities

## Results of the integrated analysis with LEAP-IBC tool

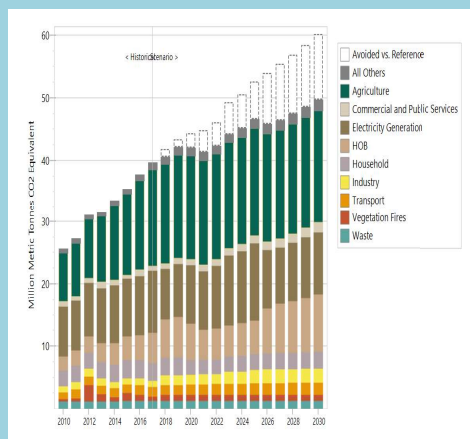
### Collaboration with CCAC/SEI

- The full implementation of Mongolia's NDC would have significant environmental and social co-benefits through improved air quality.
- Mongolia has highlighted air pollution as a development priority with ambient air pollution (fine particulate matter ( $PM_{2.5}$ )) in Ulaanbaatar 6 times higher than the WHO Guidelines
- Impacts including increased respiratory and cardiovascular diseases, expenditure on healthcare, and impacts on the health of Mongolian children.
- The analysis finds the full implementation of Mongolia's NDC would reduce black carbon emissions by 14%, primary  $PM_{2.5}$  emissions by 15%, and nitrogen oxide emissions by 15% by 2030 compared to a baseline scenario.

## Past studies using modelling tools for integrated emissions and co-benefits

### Collaboration with CCAC/SEI

- Mongolia has an experience with the LEAP model
- The LEAP model estimations were used in national communications, First Biannual Update Report and revised NDC.
- The LEAP-IBC tool was used in integrated assessment of emissions of greenhouse gases, SLCPs and air pollutants



## Past studies on co-benefits: project level

### Collaboration with IGES, Japan

- The quantification of co-benefits using a user-friendly spreadsheet tool for: 1) the solar photovoltaic (PV) and solar water heaters; and 2) high efficient HOBs
- The tool simulates hourly electricity and thermal energy generation, accounting local meteorological and geographical conditions, and technical specifications of solar power/heat generation systems.
- The tool evaluates intervention scenarios such as installing solar electricity and solar thermal heaters (to replace heat only boilers (HOBs)) .

Source:

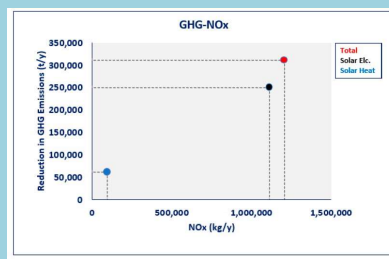
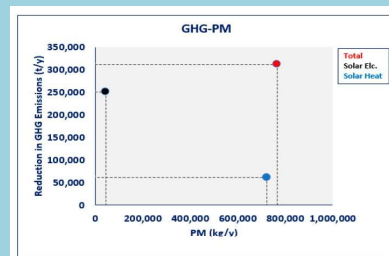
1. Farzaneh, H.; Dashti, M.; Zusman, E.; Lee, S.-Y.; Dagvadorj, D.; Nie, Z. Assessing the Environmental-Health-Economic Co-Benefits from Solar Electricity and Thermal Heating in Ulaanbaatar, Mongolia. *Int. J. Environ. Res. Public Health* **2022**, *19*, 6931. <https://doi.org/10.3390/ijerph19116931>

## Co-Benefits from Solar Electricity and Thermal Heating in Ulaanbaatar, Mongolia

### Collaboration with IGES, Japan

#### Key Findings

- This study quantifies the multiple environmental, health, and economic benefits from the installation of 100MW solar electricity and providing solar thermal heaters to 20,000 households.
- The results reveal a significant reduction in GHG emissions and air pollution.
- The scenarios can help to prevent nearly 6,500 disability adjusted life years (DALYs) and provide an annual saving of USD 7.7 million.
- These estimates could be integrated into climate and air pollution planning processes and attract resources for demonstration projects




Thank you !

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## Further needs for strengthening action on co-benefits

1. International support to raise the profile and promote the integration from past studies into NDC, air pollution and related planning processes
2. International support to estimate the reduction potential and impacts of methane
3. International support for concrete co-benefits demonstration projects in key sectors, buildings, energy, agriculture, and mining
4. International support to quantify and integrate co-benefits into national long-term low-emission development strategies (LT-LEDS)






## Connotation

- ✓ China sees pollution prevention and control as an integral part of the response to climate change.
- ✓ China integrated the goals of peaking carbon dioxide emissions and carbon neutrality into the overall plans for promoting eco-environmental progress and economic and social development.
- ✓ Efforts to reduce pollution and carbon emissions are planned and carried out in tandem, and the performance assessment of the two is also conducted jointly.



## CONTENTS

- Connotation
- China's policies and actions for addressing co-benefits at national level
- China's policies and actions for addressing co-benefits at local level
- The way forward



## China' s policies at national level

- ✓ **laws and regulations:**
  - more than 60
- ✓ ***The Implementation Plan for Synergizing Reduction of Pollution and Carbon Emission***
  - enacted in June 2022
  - "1+N" policy framework for carbon dioxide peaking and carbon neutrality
  - to strengthen the **source treatments**, such as ecological environment zoning control, enhance the implementation of pollution and carbon reduction in **key areas**, such as industry, transport and urban and rural construction, reinforce the synergy from **environmental pollution control measures** of air, water, soil and solid waste pollution and carbon reduction measures to improve environmental quality, and encourage key regions, cities, parks and enterprises to play the **innovation and demonstration** role in synergizing reducing pollution and bring down carbon emissions.





## China's actions at national level

- piloted the coordinated management of the "3 line-plus-1 list" (the red line for ecological conservation, the bottom line for environmental quality, the upper line for resource utilization and the list for ecological and environmental compliance) in **16 cities**
- made the overall consideration of climate change factors while analyzing ecological and environmental implications of **17 pilot policies**
- **7 pilot industrial parks**
- explored technical methods and management approaches for coordinated management of reduced pollution and carbon emissions in key industries and sectors in **9 pilot provinces**

international dimension

international cooperation

economic dimension

cost reduction

social management

social dimension

environmental dimension

pollution reduction

co-benefits

carbon emission



## China's policies and actions at local level

- ✓ over 500 regulations
- ✓ from EIA to Carbon Assessment
- ✓ policies VS science, technologies
- ✓ policy making VS education



## The way forward

- ✓ the way to incorporate the goals of peaking carbon emissions and reaching carbon neutrality into the overall layout of building an ecological civilization and the overall economic and social development
- ✓ the assessment of co-benefits: methodology
- ✓ pilots and good practices
- ✓ Capacity building: more training courses at local level
- ✓ international cooperation(China, Japan + )



# Thanks!

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中国环境战略与政策  
[www.prcee.org](http://www.prcee.org)

## National Planning on SLCPs - Celebrating National Planning Achievements: Setting the stage for implementation

Stockholm Environment institute  
Chris Malley, Johan Kuylenstierna

CCAC Secretariat  
Elsa Lefevre, Nathan Borgford Parnell,  
Seraphine Haeussling, Ioli Howard

September 2022



## Analysis of NDCs



### NDC Registry

In accordance with Article 6, paragraph 12 of the Paris Agreement, NDCs communicated by Parties shall be recorded in a public registry maintained by the secretariat.

(Showing 10 of 101 results)

Party	Title	Language	Translation	Version	Status	Submission Date	Additional Documents
Haiti	NDC (revised/updated submission)	French		2	Active	01/04/2022	
Guatemala	Contribución Nacionalmente Determinada de Guatemala (actualizada)	Spanish		1	Active	23/05/2022	
Ecuador	NDC (COP26)	Spanish		1	Active	04/05/2021	

- 294 NDCs submitted between 2015 and July 2022 analysed
- SLCP and air pollutant assessed in terms of:
  - Framing
  - Targets
  - Mitigation Measures

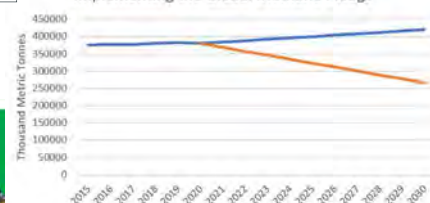
## What do we have to celebrate on SLCP Planning?

Number of countries including SLCPs and air pollutants in NDCs more than doubles

45% increase in mitigation actions with SLCP benefits in NDCs



### Implementing the Global Methane Pledge



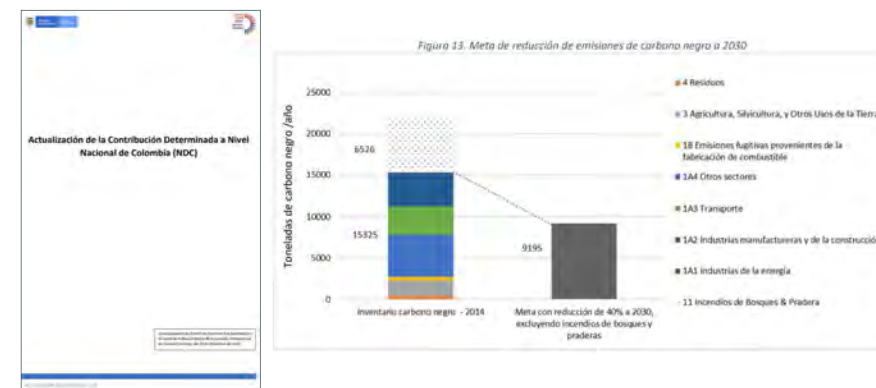
Global Methane Pledge target can be reached from full implementation of methane measures in NDCs

Thousands of premature deaths avoided from NDC implementation

Inclusion of SLCPs and air pollutants in NDC more than doubled

General acknowledgment	Co-benefit of climate mitigation action	Statement on specific SLCPs/air pollutants	Reference to National Plan/Strategy	Quantitative information on emission reductions or health benefits
<b>SLCPs</b>  Eswatini, Jordan, Liberia, Pakistan, United States  <b>Air pollution</b>  Angola, Brunei, Cape Verde, Colombia, Cuba, Democratic Republic of Congo, Eswatini, Georgia, Maldives, Mexico, Morocco, Panama, Qatar, Republic of Congo, Tunisia, United Arab Emirates, Vietnam	<b>SLCPs</b>  Dominica  <b>Air pollution</b>  Burkina Faso, Burundi, Cambodia, China, Dominican Republic, El Salvador, Guinea, Honduras, Iraq, Jamaica, Jordan, Laos, Lebanon, Malawi, Marshall Islands, Montenegro, Myanmar, Namibia, Nepal, North Macedonia, Oman, Pakistan, Palestine, Papua New Guinea, Paraguay, Rwanda, Senegal, Sierra Leone, South Africa, South Sudan, Sri Lanka, Tunisia, Venezuela	<b>SLCPs</b>  Methane: Burkina Faso, Iraq, United States, China, Saudi Arabia, Republic of Korea,  Black Carbon: Canada  HFCs: Albania, Argentina, Barbados, Bhutan, Canada, China, European Union, Mauritius, Morocco, Namibia, New Zealand, Nicaragua, Pakistan, Paraguay, Sierra Leone, St. Lucia, Tunisia, United Kingdom, United States, Venezuela  <b>Air pollution</b>  Volatile Organic Compounds: China, St. Lucia	<b>SLCPs</b>  Bangladesh, Colombia, Nigeria, Togo, Cote d'Ivoire  <b>Air pollution</b>  Albania, Belarus, Kuwait, Nauru, Togo, United Kingdom, Uzbekistan  <b>Air pollution</b>  Benin, Central African Republic, Cote d'Ivoire, Ghana, Mali, Nigeria, Togo, United States of America, Zimbabwe	<b>SLCPs</b>  Bangladesh, Belize, Benin, Central African Republic, Chile, Colombia, Costa Rica, Cote d'Ivoire, Dominican Republic, Ghana, Japan, Mali, Mexico, New Zealand, Nigeria, Seychelles, Togo, Zimbabwe  <b>Air pollution</b>  Benin, Central African Republic, Cote d'Ivoire, Ghana, Mali, Nigeria, Togo, United States of America, Zimbabwe

## More quantitative black carbon targets



## Large health benefits from NDC implementation

### Box 3: Clean cooking

As set out in Table 1 above, under the updated NDC, the Federal Government of Nigeria aims to implement a programme to convert over 25 million households to using LPG. Traditional cooking with firewood is claiming lives, ravaging forests, undermining the empowerment of women and emitting millions of tons of greenhouse gases to the atmosphere. Conversely, clean cooking fuels such as LPG and low cost improvements in the efficiency of cooking energy devices provide a pathway to make the poor part of the climate solution. As an example, it is expected that under a business-as-usual situation, 97,000 lives could be lost by 2030 due to poor air quality in the home from dirty cooking fuels. By taking the steps outlined above to encourage cleaner cooking, 30,000 premature deaths could be avoided by 2030, in addition to the significant carbon savings.

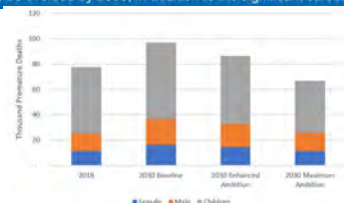
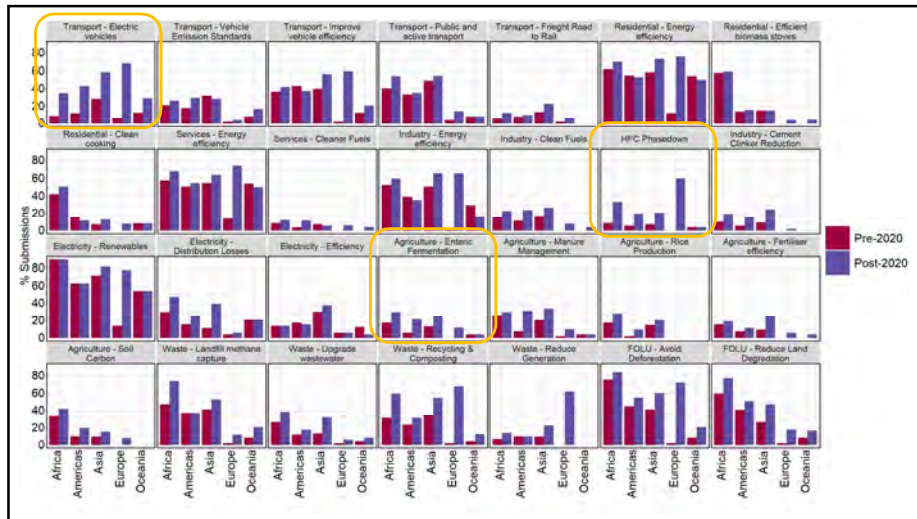


Figure 6-5: Estimated premature mortality attributable to household air pollution in 2010 and 2030 the baseline, enhanced ambition and maximum ambition scenarios, disaggregated by gender and age groups

Mitigation measures in NDCs increase by 45%: more countries committing to actions with SLCP benefits

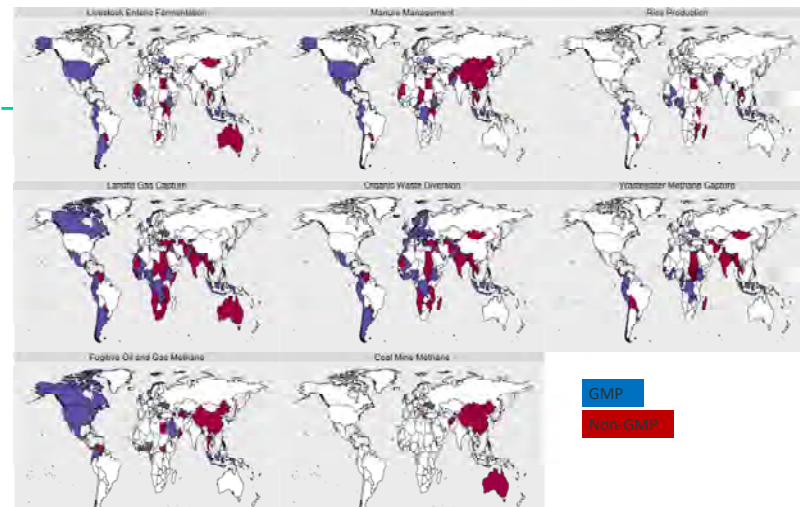


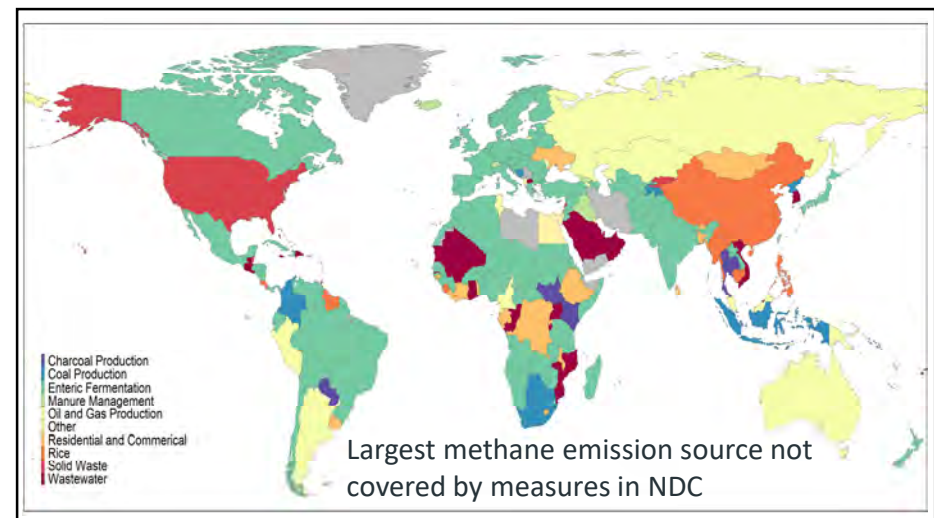
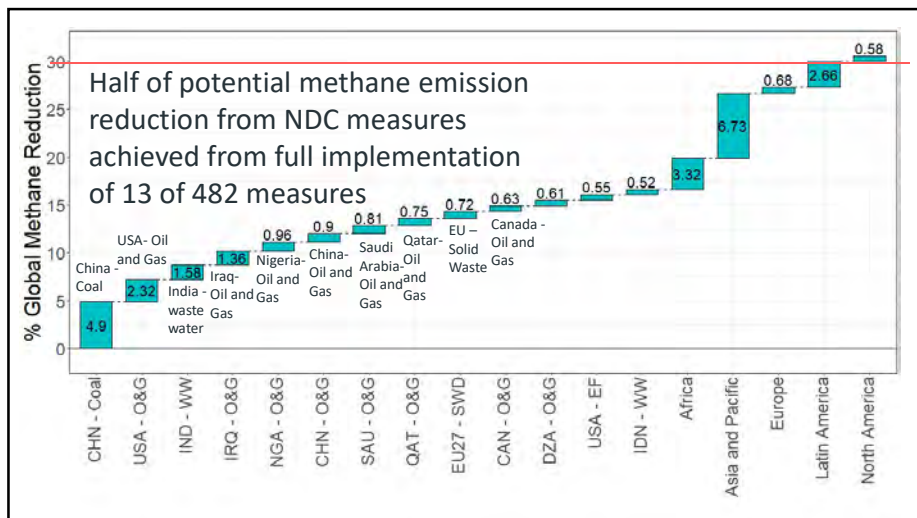
## 482 methane mitigation measures in NDCs

	Global methane emissions in key source sectors, million tonnes (% global total)	Global sectoral methane emissions emitted in countries with measure in sector in NDCs (% global total sectoral emissions)	Estimated reduction in global total sectoral emissions from implementation of measures in NDCs (% global total sectoral emissions)
Oil and Gas	20.3%	59.8%	50.9%
Solid Fuels (coal mining, charcoal production)	10.0%	58.7%	52.9%
Agriculture			
Enteric Fermentation	28.9%	28.9%	8.7%
Manure Management	3.3%	46.2%	23.1%
Rice Production	10.1%	35.2%	15.8%
Waste			
Solid Waste	9.23%	45.1%	40.6%
Liquid Waste	11.84%	35.2%	33.8%
Global Total	375.3	39.8%	30.2%
	Total emitted in sectors above: 351.5		
	93.64%		

Global methane that could be reduced from full implementation of measures in NDCs

Full implementation of methane-focussed mitigation measures could achieve GMP goal





Multiple pathways to increase ambition

NDCs not only mechanism for SLCP Planning



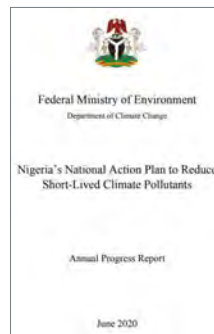
## Clean Air Plans



## Monitoring and implementation of National SLCP Plans

- Activities underway to move forward with endorsed National SLCPs Plans in Nigeria, Maldives, Cote d'Ivoire, Colombia, Chile and being planned in Ghana, Mexico and Bangladesh

### Cost-Benefit Assessment for Introducing 10 ppm Sulfur Fuel and Euro VI Emission Standard in the Maldives





## **Asian Co-benefits Partnership (ACP) 13th Advisory Group Meeting - Meeting Summary**

### **Acknowledgements**

This proceeding is the summary of main discussions of the Asian Co-benefits Partnership (ACP) 13th Advisory Group Meeting held on 31 January 2023 via Zoom. The Secretariat appreciates all the active supports and participation of the Advisory Group members, as well as financial support from the Ministry of the Environment, Japan.

The Secretariat for the Asian Co-benefits Partnership (ACP), January 2023

For more information about ACP, please visit: <http://www.cobenefit.org/>