CHINA COUNCIL FOR INTERNATIONAL COOPERATION
ON ENVIRONMENT AND DEVELOPMENT
中国环境与发展国际合作委员会

CCICED Dialogue on Climate and Biodiversity

Tuesday, March 30, 2021, 19:00–21:00 GMT+8

SUMMARY NOTES

The 14th Five Year Plan (FYP) adopted by the People's Congress of China listed advancing harmonious coexistence of humanity and nature as one the top priorities for the nation in the next five years. To achieve this, China needs to take concrete and transformative actions to combat climate change and protect nature. In this context, CCICED organized a virtual dialogue on March 30, 2021. CCICED council members, advisors, and experts representing civil society organizations participated in the dialogue and exchanged ideas regarding carbon neutrality, nature conservation, and aligning the upcoming climate and nature agendas in preparation for Phase VII (2022–2027) of the China Council. H.E. Mr. HUANG Runqiu, CCICED Executive Vice Chairperson, Minister of Ecology and Environment of China chaired the dialogue.

OPENING REMARKS

H.E. Mr. HUANG Runqiu, CCICED Executive Vice Chairperson, Minister of Ecology and Environment of China, kicked off the dialogue by reconfirming China's commitments on climate actions and biodiversity conservation. He further introduced China's recent efforts and achievements in these areas. The recently adopted 14th FYP emphasized green development, the harmonious coexistence of humanity and nature, and the establishment of an ecological civilization. It provides an important blueprint for economic and social development in China. Mr. HUANG closed by commending and congratulating CCICED for the recommendations it has provided, many of which have been incorporated into the 14th FYP.

Mr. LIU Shijin, CCICED Chinese Chief Advisor, Deputy Head of Economic Committee of the 13th Chinese People's Political Consultative Conference (CPPCC), noted that President Xi's carbon neutrality announcement had made strong impacts both domestically and at the international level. Noting the potentially revolutionary development that will take place in the green technology sector and industries, Mr. LIU reflected on the realities and challenges of achieving the ambitious goal set by President Xi. He stressed the importance of synergetic actions being taken in carbon reduction and carbon peaking, environmental rehabilitation, ecosystem restoration, as well as economic growth. He further noted that because China is still a developing country, special consideration should be given when these actions are being implemented.

Drawing on CCICED's existing research work, **Mr. Scott Vaughan**, CCICED International Chief Advisor, shared three observations. Noting the urgency of the global challenges we face, Mr. Vaughan stressed the need to act with ambition, the need to act at scale, and the need to act now, including in phasing out coal. He further noted the importance of policy integration, noting how nature-based solutions can bridge the Kunming and Glasgow agendas. Lastly, using international sovereign debt architecture as an example, Mr. Vaughan stressed the importance of demonstrating China's innovative approaches to green finance at the international level.

SESSION 1: TOWARD CARBON NEUTRALITY

Ms. Kate Hampton, CCICED Member; CEO, Children's Investment Fund Foundation, pointed out that the transition to net-zero would require a whole-of-society approach. In particular, Ms. Hampton made concrete recommendations on the gradual introduction of an absolute carbon control scheme; the need for a new energy system; the importance of ensuring that a transition from coal takes coal-dependent populations into account; and on expanding China's leadership into non-CO_2 control.

Recalling the global efforts and achievements in the years since the Paris Agreement, **Mr. Andrew Steer**, CCICED Member; President and CEO, World Resources Institute, highlighted the paradigm shift from a world of trade-offs and costs to a world of opportunities and investments when it comes to the discussions on climate and nature. Noting carbon peaking before 2030 will be in China's economic interests, he suggested that the business and financial sectors in China should establish their own Nationally Determined Contributions (NDCs) and science-based targets to achieve this. Further, Mr. Steer calls for China, through the Belt-and-Road Initiative (BRI), to take on the leadership role in supporting BRI countries to finance and implement their own NDCs.

Ms. Gwen Ruta, CCICED Member; Executive Vice President, Environmental Defense Fund, also recommended that China speed up the emission peaking before 2030. In addition to a high-speed peaking, she also suggested China should achieve a high-intensity and high-quality peaking, not only for CO_2 but also other greenhouse gases (GHG), in particular methane. Ms. Ruta noted that peaking GHG emissions before 2030 would leave China more room to implement the more challenging carbon-neutrality goal, noting that green development can propel the country's energy transformation and economic prosperity.

Professor Michael McElroy, CCICED Member; Gilbert Butler Professor of Environmental Studies, Harvard University, stressed the need for global collaboration in reducing emissions, while also giving due attention to developing nations who have yet to reap the benefits of economic development fuelled by fossil fuels. While highlighting the role of carbon-neutral electricity and the need to tackle the issue of the transportation energy mix, Professor McElroy also shared a few projects Harvard University has been working on with China, including cost-competitive offshore wind farms, harvesting green hydrogen, and sustainable use of agricultural waste.

Sharing practical examples from his own institution, Mr. John J. DeGioia, CCICED Member; President, Georgetown University, noted the Vatican's 2015 position on climate change, as well as how universities and academic institutions can achieve carbon neutrality in their operations, divestiture of fossil fuel assets, while supporting a new generation of leaders in addressing global warming through research and teaching.

Mr. Dominic Waughray, CCICED Special Advisor; Managing Director and Head of Centre for Global Public Goods, World Economic Forum, shared pathways and innovations needed to reach net-zero for hard-to-abate sectors. Noting the opportunity to stimulate infrastructure and technology development in the post-pandemic recovery, Mr. Waughray shared examples of building net-zero cities. In achieving these, Mr. Waughray emphasized the importance of disruptive mindsets for technology innovation, as well as designing the energy system and market mechanisms for transformative changes.

SESSION 2: COP 15 AND PROTECTING NATURE

Noting the lack of a common global goal for nature, and recalling the comments previously made by experts, Mr. Marco Lambertini, CCICED Member; Director General, World Wide Fund for Nature, called for an "equitable, carbon neutral and nature positive society". He further provided several sets of specific and measurable targets under this proposed global goal for a sustainable future: 1) protecting the key biodiversity areas and the most valuable ecosystems at least 30% on land and ocean; 2) curbing unsustainable wildlife trade, over-exploitation of wildlife on land, and overfishing in the ocean; 3) reducing biodiversity footprint of production and consumption system. Mr. Lambertini further suggests China taking its leadership role and as the host of COP15 to embed these into a global biodiversity framework.

Mr. Jan-Gunnar Winther, CCICED Member; Director, Norwegian Centre for the Ocean and the Arctic, outlined the concept of Integrated Ocean Management (IOM) to integrate and balance various ocean uses and environmental aspects to obtain a healthy ocean over the long term. Highlighting Xiamen City's successful implementation of IOM, Mr. Wither noted the need for sector-based management while taking an integrated approach. Mr. Winther concluded by noting the importance of developing more dynamic, more adaptive management systems, including ocean management, in successful climate change adaptation.

Recognizing the political and economic difficulty in addressing climate and nature issues, Ms. Naoko Ishii, CCICED Member; Executive Vice President, University of Tokyo, called for the global stakeholders to join efforts in identifying solutions and pathways to move beyond coal, and suggested cooperation between China, Japan, South Korea, and other regional partners in phasing out coal. Expressing her admiration of China's efforts toward ecological civilization and large-scale spatial planning, Ms. Ishii encouraged China to share its experience globally. Ms. Ishii also noted the importance of ensuring a sustainable soft commodity value chain, which she considered a key puzzle connecting climate and nature.

Ms. Kathleen McLaughlin, CCICED Member; Executive Vice President, Walmart Inc., shared experience at Walmart in facilitating systems change in product supply chains. Using concrete examples such as working with ranchers in restoring grasslands, Ms. Mclaughlin clearly illustrated synergies between climate action and nature, the importance of business's role in this transformation, as well as the need for capacity building and innovation. These examples also demonstrate that the transformation can fuel economic growth as well as achieve better environmental and social outcomes.

SESSION 3: INTEGRATING THE CLIMATE AND NATURE AGENDAS

Reflecting on emerging practices from the private sector, Mr. Peter Bakker, CCICED Member; President, World Business Council for Sustainable Development, noted the critical importance of integrating the climate and nature agendas. Acknowledging the climate emergency, loss of nature, and growing inequality as three global issues, Mr. Bakker noted we are in an era of system transformation where everything needs to be changed. Mr. Bakker continued by introducing the work of his organization on nature-based solutions and natural climate solutions aiming to support the transformation toward a common vision for 2050.

Mr. Manish Bapna, CCICED Special Advisor; Executive Vice President and Managing Director, World Resources Institute, shared a "protect-produce-reduce-restore" approach to bringing the climate and nature agendas together. Specifically, Mr. Bapna recommended the protection of critical ecosystems by greening soft commodity supply chains; producing more food on existing agricultural land by reforming agricultural subsidies toward public goods; reducing food waste by shifting toward more sustainable plant-based diets; and restoring degraded agricultural and forest.

Mr. Richard Florizone, CCICED Member; President and CEO, the International Institute for Sustainable Development, in addressing the climate–nature linkage, introduced the concept of nature-based infrastructure (NBI), which can also help China achieve many priorities identified in the 14th FYP. Noting the challenges of scaling up NBI practices, including a lack of measurement standards and knowledge of best practices, Mr. Florizone offered several practical solutions, such as the NBI Global Resource Center and National Adaptation Plan Global Network.

Ms. Bernice Lee, CCICED Special Advisor; Research Director, Global Economy and Finance, Chatham House, identified five important connectors in joining the dots between climate and biodiversity, including finance packages delivering multiple goals, trade, a deforestation-free supply chain, food-system resilience, regenerative agriculture, net-zero integrity, as well as investing in people.

Ms. Jennifer Morris, CCICED Member; Chief Executive Officer, the Nature Conservancy, provided two specific recommendations: 1) as the host country of COP15, China should lead the process in reaching a global target for the world to collectively close the biodiversity finance gap; and 2) China should leverage its international financial leadership to lead a global movement to reinvent and scale debt-for-nature swaps, which can bridge the climate and biodiversity agenda while solving the growing sovereign debt crisis in developing countries.

Building on the interventions from previous speakers, **Mr. Harvey Locke**, CCICED Biodiversity Special Policy Study (SPS) Expert; IUCN WCPA Beyond the Aichi Targets Task Force, reiterated the idea of "an equitable, nature-positive, carbon-neutral future." Mr. Locke noted that the idea of a "global eco-civilization," which is a theme for the Kunming COP, could easily be linked to this idea of an "equitable, nature-positive, carbon-neutral future." In this way, this year with the Kunming COP, for the first time, as Mr. Locke noted, we have an extraordinary opportunity to integrate ideas on climate, nature, and humanity as a means of guiding top-level integration of the Convention on Climate Change, the Convention on Desertification, and the Convention on Biological Diversity.

CLOSING REMARKS

In his closing remarks, **H.E. Mr. HUANG** expressed gratitude for the constructive and inspirational comments and ideas provided by the participants. These insights and inputs will play an important role in facilitating carbon peaking, carbon neutrality, biodiversity conservation, and environmental and ecological protection.

Recalling the inputs on the need for a green, inclusive, equitable restoration and transformation, Mr. Huang noted these are well aligned with the new developmental philosophy that China is implementing. He also noted China will work with the international community in an open and inclusive manner in achieving this transformation.

In this regard, Mr. Huang emphasized the increasingly significant role of CCICED, which will continue to serve as a high-level international think tank and communication platform. Mr. Huang finally called for participants' continued support of CCICED's work to promote the development of a beautiful China and a prosperous world.

CCICED High Level Dialogue on Climate and Nature

Tue, March 30, 2021, 19h00-21h30, GMT+8

Unofficial Transcript

Chair

Okay, so let's get started. Honorable council members, special advisers, distinguished guests. Good evening, and good afternoon and good morning to everyone. Our council members, and also special advisers, live in different cities, and some of the cities are now at night, just like Beijing, and some might be still in the afternoon and morning. Thank you so much for attending the CCICED dialogue on climate and biodiversity, out of your busy schedule. This is my first exchange discussion with you since I served as the CCICED Executive Vice Chairperson. On behalf of MEE, and of CCICED, and in my own personal capacity, I would like to express my warm welcome to all the distinguished delegates. And I also would like to express my sincere heartfelt thanks to everyone for your care and support to China's environment and development and to the work of the CCICED.

Chinese government is strongly committed to the climate actions and conservation of biodiversity, and has always put ecological civilization, and equally environmental protection high on the agenda of the national governance and facilitates them consistently. The recently concluded two sessions adopted the Outline of the 14th Five Year Plan and the 2035 Long Range Objectives, which helps China embark on a new journey. It is an ambitious blueprint. So, this is actually, you know, a new journey of building a socialist, modern country, and it has also made a special arrangement for the harmony between nature and human and the protection of the environment and ecology. So, this provides, actually, a guiding document for China's ecological civilization, and environmental protection.

In September, President Xi, in the general debate of the 75th Session of the General Assembly of the United Nations, declared that China would like to achieve carbon dioxide emissions peaking before 2030 and achieve the carbon neutrality before 2016. The 14th FYP provides that during the 14th FYP, the energy intensity and carbon intensity will be reduced by 13.5% and 18%, respectively. In order to achieve carbon neutrality and carbon peaking, we need to have an extensive and profound and systematic revolution of the economy and the society. So, to achieve these targets, we need to have

courage, and we also need to take very strong and forceful measures and actions to make a real difference. Right now, we are developing the 2030 carbon peaking program of action, and we are accelerating the development of the national carbon emission trading system and conduct international cooperation in the climate arena.

In the September of last year in the United Nations Biodiversity Summit, President Xi highlighted that biodiversity is the basis for sustainable development, and also the means and the ends to it. China is one of the countries that has the richest biodiversity. It is also one of the earliest countries that joined the Convention on Biodiversity. In recent years we have achieved positive progress in the conservation of biodiversity. We have built the ecological red line system that protects over 25% of the land territory as conservation areas. Most of the key spaces and key ecosystems have been effectively protected within the ecological red lines. The 14th FYP states that we will implement major ecosystem rehabilitation and protection projects, and we will establish a nature protected area system, mainly consists of national parks, based on nature reserves, and supplemented by various natural parks. China will also implement the eco compensation mechanism, improve the quality and stability of the ecosystem. CBD COP15 will be hosted in Kunming from October 11 to 24th. As the host country, we are actively promoting the preparation of the COP15.

Ladies and gentlemen, ever since its establishment from 1992, CCICED has witnessed and participated in the historical evolution of China's development concepts and approaches and has played a unique and important role in the sustainable development process of China. During the 2019 CCICED AGM in Hangzhou, Vice Premier Han Zheng, who is also the chairperson of CCICED, talked with the council members, face to face, and listened to their advice and recommendations. The policy recommendations of the 2020, which have been reviewed by Vice Premier Han Zheng, have been forwarded to relevant ministries and local government, and have made a positive contribution to the post pandemic green recovery of China and the development of the 14th FYP. I would like to take this opportunity to thank the Chief Advisors and Council Members, Special Advisors and Partners for your participation and contribution.

Today's dialogue is divided into three components. First of all, the Chief Advisors will make keynote remarks, and then we would like to invite each council members to talk about the carbon neutrality, COP15 and biodiversity conservation, and climate and nature synergy. All of you here today are well known experts in the sustainable development areas such as climate actions and biodiversity conservation, you have rich experiences, and also practical experiences and research insights. So, I really look forward to hearing your insights.

So first of all, we would like to invite the Chinese Chief Advisor, Mr. Liu Shijin to give remarks.

Liu Shijin

Honorable Minister Huang, Members of CCICED, Special Advisers. Hello to everyone. In the speech made by Minister Huang, he has raised very important points. I think he has already set the direction and the tasks for our discussion. For today's discussion, we are focusing on climate change and

biodiversity. These are all issues of practical significance. President Xi's announcement of the 2030 and 2060 targets has raised a lot of attention in the world and in China. I have participated in many meetings in recent days, and there have been lots of discussion about these targets of 2030 and 2060, i.e. the carbon peaking and carbon neutrality. I feel that there is a growing consensus on the carbon neutrality target. We believe our carbon neutrality target will bring forward a lot of our revolution in terms of the green technology when industry and development approaches, as well as development concepts. But we also feel that there are some issues here because China has also some uniqueness and China is a developing country. So, besides the issue of carbon, the environmental pollution issue, as well as the ecological restoration, and economic growth are very important issues.

We do have a view that emissions reduction and carbon peaking, environmental rehabilitation, ecosystem restoration, as well as economic growth should be pushed forward simultaneously. Among these four, there are a lot of complementarities. For example, in Shenzhen, 70% of carbon dioxide emissions and pollutants come from the same sources. So, I have an economic concept to share with you. I think our carbon emission reduction has a lot of externalities. The cost will be borne by ourselves, and the benefits are shared by all. I think in terms of the pollution reduction, actually it is very more internalized, rather than externalized. For example, an industrial park and a factory or a neighborhood, if they suffer from some pollution, then the local residents would have a very strong incentive to treat the pollution, while they treat the pollution, they are also reducing the emission. This is what I meant by saying that 70% of these carbon emission and pollutants come from the same sources. Therefore, there could be a lot of co-benefits, and synergy. People have a stronger incentive to abate the pollutants compared to the carbon emission reduction. I think we should focus on these areas where they are more incentivized. And then that can drive forward to the carbon emission reduction, about which they are less incentivized.

On biodiversity and ecological conservation. This can also increase the carbon sinks, so there is also synergy there. I think if we can push them forward simultaneously, this can help us to achieve carbon emission reduction, and also carbon neutrality and carbon peaking goals. Today we are here to discuss these issues. I think these issues are of great practical significance, and how can we really work on the carbon emission reduction, environmental protection, ecological restoration and biodiversity conservation. At the same time, we also need to maintain a relatively rapid economic growth. So, all these have to improve together. This is something that we should bear in mind when we talk about this today and we hope that we can look at look at Chinese national conditions and circumstances. We have a lot of international experts present here today, many come from developed countries. In developed countries they have rich experiences in this regard. For example, environmental pollution reduction, and also the carbon reduction using the NbS. We hope that the international experiences can be introduced into China, in particular the good examples. So, this is a very broad area that we can have in depth discussion. And for the CCICED, for our SPS, we can also strengthen our research in this area. So, we do have this component and we can continue to step up the research in this area as a priority. So, I hope that our council members, and special devices, as well as the experts can provide good inputs. This is a beginning, and we'll have more chances to exchange with each other and have a deeper research. So much for me and thank you so much.

Chair

Thank you so much Mr. Liu for your wonderful remarks, and very good suggestion. So now we are going to invite the international chief adviser, Mr. Scott Vaughan, to give remarks.

Scott Vaughan

Thank you very much. And Good evening. Good evening, Minister. Thank you. First of all, very nice to meet you. And a very warm welcome. I think as you've said, this is your first meeting with CCICED. So, congratulations to you. Also, congratulations to China's leadership in the past in recent years and moving forward. So very much looking forward to meeting you in person. Also, thanks to the Secretary for convening this meeting. Also, to all the CCICED colleagues who are joining us here today. Minister, you've set out very well just how important it is to have this dialogue at this particular moment. China's 14th Five Year Plan was recently shared with Chinese and as well as with the world. The date for Kunming has now been set. Also, we're seeing renewed multilateral engagement and cooperation on climate and on nature and the exchanges we have with CCICED, I think are very important within this context. I wanted to share just three very brief points this evening drawing on the work from CCICED.

The first is around urgency. Science confirms the accelerating loss of nature, faster rates of global warming, and the need to act with ambition, the need to act at scale and the need to act now. The recent UNEP Emissions Gap Report concludes that unless significant carbon emission reductions occur before 2030 it will be impossible to meet the 1.5-degree target of the Paris Agreement. It will thus be really important to ensure that the impressive measures set out in the 14th FYP, expanding renewable energy reducing the fate and other emissions, setting National Energy Efficiency Targets, extending the national carbon market, strengthening regulatory enforcement and many other measures are not overshadowed in the near term by carbon emissions from coal. The UN Secretary General recently asked all countries to stop building new coal plants and we know that this is immensely challenging. Yet the economic, financial, business, public health, competitiveness and social case for power sector decarbonization goes stronger every day and CCICED will continue bringing new evidence at the macro and micro levels in supportive transition pathways.

The second point is integration. I want to congratulate MEE for the 2021 guidelines on integrating pollution abatement, climate mitigation, climate adaptation and nature protection. China is pioneering new pathways to policy integration within a broader framework, as you've said, Minister, of ecological civilization and green development. Examples include the ecological red line, linking nature and climate, jurisdictional approaches like the Yangtze river basin, or linking resilient supply chains with more sustainable demands from green consumers. As Professor Liu has just mentioned nature-based solutions are particularly important within the context of the work of CCICED, both at the policy and the project interface, in demonstrating that integration can work and can help build a bridge between the Kunming and Glasgow agendas.

My final point is around innovation. China has been absolutely at the forefront of green finance innovation and we need that innovative thinking and leadership from China at this particular moment on the international stage. The message from yesterday's UN high level meeting on financing for

development is absolutely stark. The global pandemic is an unprecedent development emergency. Most economies, in fact 90% of economies, will shrink in 2021 while sovereign debt levels are skyrocketing. Yet there is a window of opportunity to redesign the international sovereign debt architecture to align it with a green recovery, the sustainable development goals, the Paris agreement and the Kunming COP 15. In addition to systemic initiatives underway for example by the IMF, options include the examining new issue and issuances of green bonds, of blue bonds as well as linking debt financing to nature-based solutions, for example, by treating carbon sequestration as a collateral asset and carbon sink outcomes as a portion of debt payments based on certified emission credits. I think there are opportunities, Minister, given particularly in the light of china's absolute leadership in the global stage to explore green financing innovation. For example, the context of the upcoming China Africa Summit, as well as the ongoing work CCICED is exploring through the green belt and road initiative.

So, with that, Minister, let me just say again thank you very much for convening this meeting. I look forward to the discussions. I think there will be two or three ideas that perhaps come out of this discussion that we could follow up with and explore and see if CCICED can put forward advice pre COP15. Thank you very much!

Chair

Thank you so much, Mr. Scott for your wonderful presentation and I also hope that we can really see you in person. As soon as possible. And now, according to the agenda, we are going to have the first session of the speeches by our members, and we would like to ask the members of this session to talk about the carbon neutrality. China has considered carbon neutrality and carbon dioxide emissions peaking as an important instrument of the high-quality development during the 14th FYP. And the window period for the carbon peaking in the 14th FYP. So how can we use a more cost effective and inclusive and equitable manner to promote carbon peaking and neutrality and promote a full green transition of economy and society, are all the big challenges. So, we are going to first give the floor to Miss Kate Hampton, CCICED Member, CEO of the Children's Investment Fund Foundation.

Kate Hampton

Thank you very much, Minister. It's a great pleasure to meet you and I hope to do so in person very soon. Thank you to the Chief Advisors for their interesting comments as well. I'm of course delighted to be here at this very timely meeting to discuss biodiversity and climate change. I'm going to present my comments as suggested by the Minister on carbon neutrality. China reinvigorated climate diplomacy last year through the pledge to peak emissions before 2030 and achieve carbon neutrality by 2060. This is a very exciting commitment and has encouraged many other countries to follow suit. And we noticed that following the pledge, the 14th FYP and recently Central Financial and Economic Commission have reiterated the commitment and started to lay out the direction of travel. We've also observed growing interest on carbon neutrality and encouraging signs from ministries and sectors in provinces and cities in China, including accelerated development of China's ETS, and carbon peaking

pledges by major state owned and private enterprises. And the People's Bank of China plan to comprehensively factor climate change into its policy framework.

Of course, the transition to net zero is going to be bumpy. It's going to be difficult given the scale and complexity of taking a whole of society approach and given the complexity of our respective economies. But China is not alone in the journey, the world is aligned around net zero. In fact, most countries now have committed to net zero. But what's less clear for many is how these bold visions are going to be achieved. And most countries and indeed companies are struggling in terms of delivery in the near term. Every country needs to work together to develop new governance approaches, especially in key areas, such as making a fast energy transition. How to implement the emerging consensus on no new coal? How to decarbonize hard-to-abate industrial sectors? How to green the financial system? How to transition the food system to one that meets nutritional needs as well as planetary boundaries? These are all shared challenges. I think all countries will benefit from collaboration and learning. All countries need to muster the courage, as you said, Minister Huang -- that word "courage" is an important one -- to face the climate emergency while recovering from a pandemic. A pandemic during which rich countries were able to mobilize 20% of GDP to help alleviate the impacts, whereas low-income countries were only able to mobilize 2% of smaller amounts of GDP, to protect their populations from COVID. So, it's really important, as Scott has mentioned, that we use upcoming opportunities such as the G20, the G7, the spring meetings of the IMF and the World Bank, in order to ensure that there is a moment of solidarity through instruments like issuance and reallocation of the IMF special drawing rights to debt restructuring to creating a longer-term framework. For example, SDG link bonds and climate compatible financial sector regulation. These are all things I think Scott mentioned in his opening remarks.

All major economies, but especially the US and Europe and China have a real opportunity but also a responsibility to invest in global public goods and support the most vulnerable communities and vulnerable countries on a path to green a resilient recovery. The upcoming carbon peaking plan and sectoral 14th FYP are great opportunities China can plan to further specify its NetZero-aligned near-term actions. Gradually introducing an absolute carbon cap control scheme along with carbon intensity targets could ensure that we're on the trajectory to net zero. This needs to be supported by regional and sectoral carbon target allocation mechanisms to ensure that everybody is taking into account carbon goals as part of their regional and sectoral development. We also need a group of early peaking and neutrality pilots across every sector of the economy. I remember speaking to many of the leaders of China's peaking cities, we would like to see peaking provinces and enterprises and peaking sectors, there's huge opportunities for innovation and piloting approaches to help us get onto this net zero trajectory.

In the near term, the national carbon market, we're really glad to see a revised draft of the regulation released today for consultation, and it's refined the design to create a much more effective ETS with the introduction of a cap and auction. This is very exciting. So, setting a total emissions cap increasing the share of allowances allocated by auctions and quickly expanding to other sectors. With good coordination mechanisms with other policy leavers, China can help drive up the price for carbon and include the externalities that Professor Liu was talking about. We need a new energy system that centered on low carbon energy, accelerating coal control, and the large-scale deployment of renewable

energy. China is leading the world on renewable energy; all countries need to go further and faster. And we benefit hugely from Chinese experience in the deployment of renewable energy. In the same way, we also need to have a robust policy framework and roadmap to not just prevent new coal from being built, but also think about phasing out existing coal.

But crucially, we have to care for the people who are currently coal dependent for their livelihoods and promoted just transition. This is another shared challenge for all of us, there are many communities that are dependent on fossil fuels around the world. As we move to a net zero economy, we will need to think about transitioning these communities across the world.

And we'd also welcome specific areas of non-co2 control. There's a real opportunity there for expanding Chinese leadership into these areas of non-co2 control. As Professor Liu said, because of the coincidence between air pollution impacts and climate change, we can make sure that people have a better local well-being, well addressing climate change by tackling these non-co2 gases with co-management of air pollution.

So, to wrap up, I would just like to say that China is laying a really strong foundation for ecological civilization. We've heard Scott, Professor Liu and you, Minister Huang have mentioned many of the things China is doing. For the Glasgow COP on climate change, we need to finalize the rulebook show that the ambition ratchet mechanism that was agreed in Paris is going to work by securing robust near-term actions through NDCs, as well as long term strategies, consistent with 1.5 degrees. As a friend of COP 26, I'm trying my best to achieving this. For the COP in Kunming, we need to strive to have similar ambitions for post-2020 Global Biodiversity Framework, also supported by a legally binding agreement or the multilateral financing mechanism, transparency, accounting, and an ambition ratchet. Lots of across learning opportunities from the Paris Agreement. And China can support that collaboration. As I'm wrapping up, I would like to say that the Children's Investment Fund Foundation is mobilizing all our efforts to fight against this trying crisis of climate and biodiversity. We're very focused on supporting China's domestic transformation and leadership in global environmental and governance. I am very much looking forward to being able to travel again soon. Our team in China is working with stakeholders to ensure there's as much cross learning as possible as we attack these challenges together. I look forward to our continuing partnership in these joint efforts and meeting with Minister Huang in person. Thank you for your invitation and good luck.

Chair

Thank you and wish you could come to China soon. Next, I would like to invite Council member, President and CEO of WRI, Mr. Andrew Steer. Mr. Steer is about to become the President and CEO of Bezos Earth Fund. I would like to show my sincere congratulations to you.

Andrew Steer

Thank you so much, Minister. Excellencies. Ladies and gentlemen, friends, it is a great honor to be with you today.

These are very exciting times. When we met in Paris in 2015, we would not have imagined that, today, over 100 countries accounting for 55% of all emissions would be committed to move to net zero by 2050. This is a remarkable achievement. Of course, China has been at the very center of that. President Xi's announcement last September was a game changer, and many have looked at their own goals in the light of that and have a joined the cause. We wouldn't have imagined either that 1,500 major corporations, global corporations, would have committed to net zero. Nor that 10,000 cities and towns would have been so. This is all very good news. it's worth asking why this has happened. Partly because the problem has become much more urgent. Partly because costs have fallen, and technologies have improved greatly. But also, very importantly the entire narrative around economics has shifted. 10 years ago, almost all economists and almost all politicians thought it would be nice to address climate change. But they thought that it would cost them in terms of jobs and investment and growth. The best economists in the world now and the best politicians in the world know that that is false. There is no trade off. We have moved from a world of tradeoffs and costs to a world of opportunities and investments. We've now learned that if one takes strong measures to address climate change, one will get more economic efficiency, we will drive in new technologies and we will lower risk. Those three things combined are a very powerful impetus to any economy. They create jobs; they create competitiveness; they create growth. China of course has done some of the most innovative work in the world on this subject.

While it's very good news that everybody is now saying let's go net zero, there is a bit of a risk here. Quite frankly because what some countries are doing and many corporations are still doing is saying, okay that's our long-term goal. But they're not coming up yet with the short-term targets. They're not coming out with the science-based five- and 10-year goals that are required. Of course, that's what the NDCs are all about. China's 14th FYP is a very important contribution as many have said already. As the sectoral plans will come out, we will learn a lot more. So too is very important that china's NDC is really ambitious. The world resources institute analyzes all of the NDCs as they come out. There are now more than 50 that have been announced for the next period. Of that 50, about half of them are really more ambitious, and the other half are not. That sadly is not good enough. Of course, china's is very important, just as the united states will announce its NDC on April 22nd, we understand. Our recommendation to the united states is it must lower its emissions by 50% by 2030 and that would almost match what the European Union has done, which is 55% reduction by 2030. Everybody will be really looking forward to China's ambitious NDC. Very importantly here as Minister you've mentioned and others have mentioned, is the peaking year. There will be just, I want to be honest with you, there will be a lot of disappointment if the peaking year stands still at 2030. The analysis which some of the best universities and research centers in China has shown, and recent work by the World Resources Institute and others have shown, that actually it is in China's economic interest to peak sooner than that. That will precisely help drive the efficiency; drive the new technologies; and lower the risk. As several have said there's some great exciting opportunities for China. As Kate just said, obviously we need to see some pilot provinces. The eastern provinces with all of the access to technology that they have, they should be peaking much much earlier. Also, corporations in China should be coming out

with their own NDCs, their own science-based targets, so should the financial sector. Non-co2 elements, there are also great opportunities.

Just a word on finance, China has been a world leader on green finance and the world owes a great thanks to china. The rest of the world is now catching up pretty rapidly. Many have already caught up and it's really important that china continues to innovate in finance so as we move towards the Glasgow COP, mandatory disclosure will become increasingly required in countries around the world and what we're also seeing is that major funds are now also committing to net zero. In the world today there are $20 trillion of bonds under management that are actually committed to net zero. There's a huge amount of interesting analysis as to what does it actually mean for a bank, for a fund, to be committed to net zero. So too, those funds are also starting to think about what would be our own NDC. What would be our science-based targets? So great opportunities here for China to lead again. Just one final word on finance. Obviously, China's Belt and Road is potentially a huge blessing to the world. What a wonderful opportunity China has to help countries implement their NDCs. There's been a lot of work that's been done by WRI and others, that shows actually that the countries that China is investing in have needs of more than half a trillion dollars in renewable energy. Wouldn't it be wonderful if China through its Belt and Road program became the financier of choice as these new NDCs require finance? That would be a huge gift to the world. Let me say, again, Minister, what an honor it is to be here. What an honor to be part of the CCICED, which in our view at WRI is just rising so effectively. The announcements you make, the weekly newsletters, the way you're convening these interesting dialogues is really wonderful. And it's an honor to be part of it. Thank you so much.

Chair

Thank you. Next, I would like to give the floor to CCICED Member, Executive Vice President from EDF, Ms. Gwen Ruta, the floor is yours.

Gwen Ruta

Thank you. Thank you so much to our CCICED leaders, and to the team for inviting me to join this dialogue today on climate and biodiversity. I'd like to use my five minutes to highlight a few recommendations that we hope would help China to achieve the ambitious goal of climate neutrality by 2060.

Because China accounts for about a quarter of all of the global carbon emissions, the world can only avoid the most devastating climate impacts if China succeeds, so it's in all of our best interests for China to do so. I was thrilled as I'm sure all of you were when President Xi Jinping pledged in September to peak carbon emissions by 2030 and achieved carbon neutrality by 2060. Reaching these goals, of course, can help to lower the world's projected warming and avoid the worst of the consequences of climate change. With the recent naming of Xie Zhenhua in China, and John Kerry in the U.S. as special envoys for climate, and with President Biden and the US convening a Climate

Leaders Summit for major economies this coming April, we do see significant new opportunities for collaboration to help achieve these goals and to inspire the rest of the world.

China's 14th FYP, as we all know recently released, encompasses the first five years of the nine-year journey towards achieving for nine years, or less if Andrew has his way, journey towards achieving peak emissions before 2030 and laying the groundwork for realizing a neutrality by 2060. The 14th FYP also, for the very first time, explicitly includes enhanced methane emissions controls and its climate agenda, further indicating China's commitment to honor its climate pledge. This emphasis on methane emissions was also echoed over this past, a very eventful, week, by MEE Minister Huang, at the fifth ministerial on climate action, and by the MEE Director General for Climate at the just concluded Second China Methane Summit held this past Saturday. At the summit, DG Li Gao specifically highlighted specific actions and measures policies, technologies and standards to systematically control methane emissions during the 14th FYP, particularly in sectors such as oil and gas, coal, and waste management. Why is this important? Because the sooner China peaks its emissions, the more buffer time it has to realize the much harder goal that's committed of carbon neutrality. With more buffer time, it will make it easier for a policy formulation, energy structure reform, and the production and lifestyle changes needed to achieve the 2060 goal.

Second and similarly, we suggest not only speeding to the peak, but also pushing the peak down through deep cuts early on. A lower peak level will not only have near term climate benefits but will also pave the way for a smoother path to climate neutrality again. In other words, the more you can do now, and the sooner you can do it, the easier it will be to do the rest. Third, China should focus on high quality economic development which requires a low carbon energy structure. Achieving peak emissions through high quality development means moving towards a clean low carbon economy. With the energy sector undergoing some of the most fundamental changes, China will need to optimize energy consumption and energy sector emissions by strictly controlling total coal consumption, not installing any more new coal fired power plants and ensuring that renewable and clean energy account for a high percentage of the overall energy mix. This will help to improve the quality of energy supply and reduce or even eliminate investment in high carbon energy.

My organization EDF supports these actions to manage both carbon and non-carbon emissions, as both are essential to address climate change and help China achieve its goals. Going forward, we would suggest focusing on three kind of overarching aspects. First, China should work at high speed to achieve peak emissions before 2030 by changing the earlier commitment of peaking by 2030. President Xi has indicated that China is already moving to speed up emissions reductions.

China's carbon neutrality by 2060 is a huge step forward, huge step forward and a necessary one. If we are to keep the global temperature rise below two degrees, the path that it takes in its energy transition will determine how difficult it will be for China to get to this goal. So green is the guiding principle developed to facilitate high quality economic and social development during the 14th FYP period. By adhering to green development, China can propel the country's energy transformation and economic prosperity. We believe that the optimal energy transition path should be focused on high speed, high intensity and high-quality peaking, combined with the longer-term program to achieve China's Beautiful

China Vision by 2035, a great modern socialist country by 2050 and carbon neutrality by 2060. Thank you so much.

Chair

Thank you so much, Ms. Gwen Ruta. Now we're going to give the floor to CCICED Member, Mr. Michael McElroy, Professor of Environmental Studies from the Harvard University.

Michael McElroy

Thank you, Mr. Minister. And thank you, colleagues of CCICED. Thank you, particularly for the talks that preceded here, Kate, Andrew and Gwen, who casted a broad net of every issues that we need to do.

I think it is very important to understand the critical importance of the coupling between climate and nature. I think that's a really important thing to do. I would also like to commend the previous speakers to have made the point that we not only have to worry about Co2, but we also have to worry about other greenhouse gases. It's important to recognize that maybe something like 30% of the current climate warming, is actually caused methane, rather than co2. So, we need to have a broad-based program of research on climate and energy in order to be able to address the challenges that we face. I think that we will all agree that this is this is clearly a global issue, a global challenge, and everybody must be at the table. It's important to recognize the very important leadership that China has provided over this last decade or so on this very important challenge. China is the largest emitter of cC2 greenhouse gases. The United States is number two. Number three is India. Of course, Europe as a whole is very important as well. So, we need to have a broad view of the issue if we're going to deal with a problem. We can't deal with it alone with China and the US and Europe. We need to have India and other countries involved and we need to also accept reality, for example, instability for the poor people in the world who have not yet enjoyed the benefits of fossil fuel and economic development. we have a global challenge here to deal with.

Let me just mention what I think are some of the basic issues that we would all agree that it's very important. Electricity is going to play a much larger role in our future energy economy than it has in the past. Electricity must come from zero carbon sources. We have a rich set of possibilities winds, solar, hydro, nuclear, as opportunities to replace coal, oil, natural gas in the electricity sector. There are some challenges which I'll mention briefly associated with those that with that opportunity. It's also very important, though, to recognize that electricity alone is not what we have to deal with. The change of the transportation, energy mix, electric vehicles or hydrogen fueled vehicles are important. We have to recognize that we don't have an obvious solution to how we're going to fly aircraft and so on so forth. We need to recognize that there also are industrial demands. Iron and steel are important industries. Cement is an important industry. On iron and steel, we can perhaps do something about. With cement, we have to worry about the fact that inevitably, it represents a significant source of co2.

In the time remaining, I'd like to just say a little bit about some of the work that we have been doing at Harvard, with our Chinese colleagues over the recent past. Our program with our Chinese colleagues goes back over 25 years and can continues with great enthusiasm at the moment. I'll say a few things that might be reasonably new to the audience here. Number one is that we have become very much interested in the opportunities for offshore wind, and particularly offshore wind in China. This is technology that has changed very rapidly over the past five years. The technology has been led, actually, by European organizations, this technology is now spreading to the United States with the President Biden recently announcing plans for major development of offshore wind in the eastern part of the United States. But the work that that we have published recently is of interest to China. What we have been able to show is that offshore wind in China is an amazingly large potential source of electricity for coastal regions of China. It's a game changer. In fact, for China, because its supplies and electricity cost competitively, to the major industrial areas and coastal China. I think that's a very important issue. Cost competitiveness, I stress. In other words, you can bring electricity from offshore at a cost cheaper than nuclear and cost competitive with coal in China. That's one new thing that we have been very proud about.

The second thing I will mention is the importance of hydrogen. Again, we have a paper that looked at the hydrogen is very important motivators that people recognize issues in refining, used in a whole variety of using production of fertilizer. The hydrogen used globally at the moment is, for the most part, made from natural gas. In the case of China, it is created from coal. So, it's got a very high co2 footprint. The study that we published recently, is one that show that you can use so called Green hydrogen in northern regions of China, where wind is often curtailed. Green hydrogen produced from electric electrolysis of water can provide a cheaper source of hydrogen than the industrial sources that are currently important in northern regions of China in particular. I also mentioned a recent study that we've done, which takes advantage of the fact that Japan in particular, has also made plans for carbon neutrality on a timescale of 2040-2050-2060, same timescale that we're talking about here in this general meeting. Japan has made plans to have hydrogen as a as a key part of its of its industrial economy in the future. The study that we've done argues that, in fact, a cooperative arrangement between Japan and China, using offshore wind in China can provide hydrogen cheaper than any other source of hydrogen that is potentially available to Japan. I think that's another interesting fact. The opportunity also is to have a comparable arrangement with the South Korea so to have an East Asian, consistent attempt to deal with these things.

I also mentioned that it's really important to recognize that there is a changing pattern of climate that we don't totally understand. And that changing pattern of climate is also affecting nature. And the two are coupled in a major way. And we need to recognize that coupling. So, again, a study that we've done recently recognizing that there are some sources of co2 that are very difficult to eliminate. The possibility is to use agricultural waste in particular as a source of organic carbon, which can be used as a source of making liquid fuels that are otherwise difficult to deal with. It can also be used in the study we did to produce biochar, in other words, to turn the carbon in the waste of the agricultural system into biochar, which can be added to the soil making it more fertile, also essentially preserving carbon on a time scale that might at least lead to 100 years and give us more time to deal with some of these issues. So, I think these are some of the issues that I think are really important.

I want to finish up by basically stressing the importance of our major research activity in dealing with these issues. It's easy to sit down and say, okay, we believe that the renewable energy system has to evolve A, B, C, and D. But it's really important to recognize what the problems are in doing that, and what the economic problems aren't doing it. In particular, to assume this global position rather than doing every country on its own. So, I appreciate, again, very much the importance of the CCICED in leading the issues here in bringing so many of us together to have a constructive dialogue such as this is. I think that we need more of this. I also look forward very much to the closer relationship, reviewing the closer relationship between the United States and China that existed in the past, I think the leadership of both countries is going to be incredibly important in dealing with the issues of the past. Thank you very much.

Chair

Thank you so much, Michael. Thank you so much for your comments and the suggestions. Now we are going to invite President of Georgetown University, Mr. John J. DeGioia, CCICED Member.

Jack DeGioia

Thank you very much. It's wonderful to be with all of you. Let me begin by expressing my gratitude to Mr. Huang, for serving as chair of this dialogue and bringing us together for this gathering. Also, to Mr. Vaughn and Mr. Liu, it's great to be with all of you. I'd like to share just a few reflections that may be just a little bit different than those of my colleagues, I wish to offer reflections from the perspective of one university and our experience here at Georgetown University in Washington, DC, and share some of the ideas that are animating our work. It's the work within one institution to address climate change the impact of carbon on global warming.

Universities can play a role in three ways. First, by pulling people together and convening dialogue. Second, by contributing to our understanding of global warming through the kind of research and scholarship that Michael just described. Third, by sharing this deepening understanding through our teaching, and also serving as leaders through our actions to make our institutions more sustainable. These three elements are the foundation of our work, what I'd like to do is just focus briefly on this third element, what we might call our institutional agency, the steps we can take as a university to address our carbon footprint.

In 2015, I think as we all know, well, Pope Francis issued his encyclical focused on the environment called Laudato si'. Laudato Si' offered a historical and a transformative vision of the Roman Catholic Church's teachings on environmental challenges in the future of our planet. In Laudato si', Pope Francis frames the challenge of climate change in the following way: “It is hard for us to accept that the way natural ecosystems work is exemplary; that our industrial system at the end of its cycle of production and consumption has not developed the capacity to absorb and reuse waste and byproducts. We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations.” This idea of a circular economy has been a driving force behind our

university's actions, again exercising our institutional agency. For many years prior to the encyclical, we had begun efforts to address our carbon footprint on our campuses. A year before the encyclical in 2014, we had achieved an important milestone we had reduced our carbon footprint by 50%. And it was a goal we had set in 2008. And we achieve this in part through green e certified renewable energy certificates. And were among the leading purchasers of renewable energy among us colleges and universities.

In Pope Francis's encyclical, there was a calling to do more. And we knew from the research and from the actions taken by national and global actors, and as we are discussing here today, there was more we needed to do to fulfill our institutional responsibility. So again, operating is one institution and this larger ecosystem, we redoubled our efforts in this next phase of work, we began pursuing a sustainable energy strategy to meet new targets, through a combination of conservation efficiency and new renewable energy. Now we set new goals to become carbon neutral and water positive by 2030. And achieving 100% renewable power by 2035. We've also taken some additional steps last year. We established a new investment strategy for our university's endowment to actively seek investments in renewable energy and energy efficiency and other businesses that support sustainability. And we pledged to divest and not make any new investments, and any company whose primary business is fossil fuels. So again, we continue our work as an institution, as a community of scholars, researchers, and students, to advance our understanding of how we can be ever more sustainable as a university, how we can contribute to just the kinds of issues that we're discussing in our convening this morning. And it's an honor for me to be here to share this brief little story of one institution wrestling with its specific responsibilities. And I'm grateful to have this chance to share this moment with all of you.

Chair

Thank you so much. Now we are going to invite the CCICED Special Advisor, Managing Director and Head of the Center for Global Public Goods, World Economic Forum, Mr. Dominic Waughray.

Dominic Waughray

Thank you very much. Your Excellency, Mr. Huang. CCICED Chief Advisors, Council Members, Special Advisers, colleagues, friends, it's an absolute pleasure to be here today, and as always, an honor for the World Economic Forum to collaborate with the Minister of Environment and Ecology and the CCICED more important than ever before. As we've been hearing from our previous speakers, Mr. Huang, I would also like to personally thank you for your keynote at this year's virtual Davos agenda in January. Our industry members and partners greatly appreciate your call for global action on climate change. And of course, we were incredibly honored to have President Xi open proceedings, reiterating China's commitment to carbon neutral growth by 2060 and carbon peaking by 2030. Minister, in the conversations we have with leaders across the public and private sector internationally, here at the World Economic Forum, I cannot overstate the importance of China's commitment to carbon neutrality by 2060, and in particular, carbon peaking by 2030. For many countries and companies as you've

heard, tackling climate change has become the rallying point around the world as they seek refreshed economic, urban, industrial and land use strategies to grow back from the COVID pandemic.

Therefore, the work of the CCICED is more vital than ever. China and the broader international community must continue to collaborate closely, share best practices and lessons learned around this shared goal. Especially to be on track for 2050 by getting there by 2030. In China's case, of course, carbon peaking by 2030. This 2030 Goal is so important, otherwise 2050 is merely an abstract. Like many emerging markets, China is of course still in the process of industrialization and rapid urbanization, including to 2030, such an important decade for Chinese transformation. There are still increasing demands for infrastructure and construction materials and growth in heavy industry as set out in the 14th FYP. So, as CCICED Chief Advisor Liu Shijin so eloquently puts it in a workshop we held last week for our SPS, the horse has to run faster, but also has to eat less grass.

So, what are the pathways to net zero by 2030 for the hard-to-abate sectors in heavy industry? In getting to net zero some calls are clear. Not easy, but clear. According to recent analysis undertaken for the World Economic Forum by Boston Consulting Group, the energy and industrial sectors combined, are responsible for about 45% of global emissions, they will require a vast transformation to increase the share of renewables by a factor of four was also making rapid gains in energy efficiency and expanding CCS and other options according to IEA scenarios. The mobility sector, it's about 15% of global emissions, and we'll see a move towards electric mobility along with increased public transport use.

Now, China is already a world leader in both of these important transformations. In this industrial transformation context, however, it is far less clear how to rapidly and efficiently decarbonize. The so called hard-to-abate sectors in heavy industry, such as steel, cement, elementium, chemicals, aviation, shipping and trucking, as our colleagues have so far laid out, decarbonizing these sectors, and importantly, being on track to do so by 2030 will take multiple innovations. For example, in scaling, green hydrogen fuels, widespread investments, public private collaboration, as well as a global community of collaboration, and motivated companies and governments working together in unison towards shared goals. The kind of patient capital that China's state-owned enterprises possess, put behind big bets on decarbonization will also be key to this transition, as well the entrepreneurial energy of startups and innovators. It's the perfect recipe for revitalizing regenerating and harnessing the potential of China over the next decade, both nationally and internationally.

As the Chinese economy takes off, again, post COVID-19, and as we head into the implementation of the 14th FYP, there is a huge opportunity to stimulate the next set of infrastructure and technologies, we will need to reach net zero in hard-to-abate industrial sectors. For example, scaling clean hydrogen at scale will be critical. The building blocks for this will involve investing in new infrastructure, such as charging stations, but also leveraging existing infrastructure such as gas networks and blending hydrogen with natural gas for use in homes. Or, for example, investing in port facilities to ensure the availability of zero emission fuels derived from biogas, hydrogen or ammonia, all produced from renewable energy, green, zero emission fuels for zero emission vessels. other technologies are needed such as carbon capture utilization, storage, smart Energy grids and advanced biofuels. So, we're at a pivotal moment where mass manufacturing and deployment could turn these innovations into vital

evidence in clean energy transitions both in China and worldwide. Similarly, as we've heard, doubling down on the circular economy could help reduce emissions from steel cement chemicals and elements by up to 40% and less than $10 a tone.

Another key area will be building net zero cities as our SPS on green technology sets out, which we are incredibly honored to co-lead in collaboration with CAUPD and the German Environment Agency. We can see the opportunities that arise at the coming together of the digital and the physical world, what we at the World Economic Forum call the Fourth Industrial Revolution. This confluence of the digital transformation, the clean tech transformation, clean energy transformation, and the net zero industry transformation for urban areas the land use areas combined is a huge, exciting opportunity to face. If it's combined with smart people-centric planning and regulation, it provides pathways to net zero cities. Smart grids providing clean energy to smart buildings, reliance on batteries and renewable energy.

But to realize this, we need disruptive mindsets for technology innovation, as well as designing the energy system and market mechanisms for transformative changes. The good news is that this carbon neutral and nature positive transformation can also create immense economic value and new jobs. A report by the World Economic Forum which we released in July, as part of our nature and biodiversity action agenda towards Kunming CBD COP 15 in October, projects that such a net-zero nature-positive economic transformation could create net new 390 million new jobs worldwide by 2030, including in the transition to sustainable and biodiverse cities, sustainable and nature positive agricultural systems, and in extractives, and construction. So, for all of these reasons, and as you've heard from other experts already, and as we will hear shortly, the World Economic Forum, we are going to do all that we can to support China's transition to carbon neutral growth, including vitally, meeting the 2030 target carbon.

Lastly, continuing our co-leadership on the green technology SPS, this year, we're engaging our business community to gain the private sector view on what needs to be put in place to scale green technologies in Chinese cities. This will complement the work of our partner CAUPD, who will also look at net-zero pathways and the assessment of green technologies. We're moving from research and analysis into public private collaboration and implementation. In addition to this and to support President Xi's ambitious climate action agenda, we would very much like to further explore how to better support your vital work, Minister Huang, on getting to carbon peaking by 2030, particularly in hard-to-abate industrial and transportation sectors. Given our work in the mobilization space for the COP 26 presidency, and with over 300 international leaders already mobilized from the industrial and financial community, and a range of partner organizations involved including colleagues around this, we would very much like to explore the role we could play to engage our Chinese as well as international industry and finance partners to help accelerate this vital industrial sector transformation to be on track for carbon peaking by 2030. This can take place through information best practice sharing supporting analysis of roadmaps or leveraging our events to help industry leaders meet with government officials and each other to advance progress on sector action tracks. Minister, we would be delighted to dedicate resources to this vital agenda for China and for the world. Thank you for the opportunity.

Chair

Thank you, Dominic, for your support to our carbon peaking work. Dear colleagues, just now we heard the presentations from the first session. The speakers offered very constructive suggestions, well presented. I would like to thank all the speakers of the first session. Thank you very much. Now let's enter into the second session, that is called COP15 and biodiversity conservation. International community holds high expectations for COP15, expect the conference to adopt ambitious, practical and balanced post-2020 biodiversity framework. This framework will not only be the landmark outcome of COP15, but also the new starting point of the future of global biodiversity governance. China is willing to implement the obligations of the host country and well play its role, and promote the global biodiversity governance to a new level. So first of all, I would like to invite Mr. Lambertini, CCICED Member and Director General of WWF. The floor is yours.

Marco Lambertini

Thank you very much Minister Huang, Professor Liu and Dr. Vaughan for organizing this event. It is truly an honor to be part of CCICED and to share some reflections today,

I was comparing the titles of the previous session on climate and the one on nature that we're just entering right now. In the climate session, the title itself towards carbon neutrality signals in a very simple, direct, unequivocal way: the common direction, the ambition and the agreed and shared goal to mitigate climate change, carbon neutrality. The title of this session refers more generically to protecting nature. And I think this reflects the reality that today, despite by diversity has risen much higher than ever before in the political and corporate agenda, we still don't have the same clarity, of direction about a global goal for nature -- a global goal that will be the humanity's compass to guide our effort to hold and restore natural loss for the benefit of people and all life on Earth, a global goal for nature that matches the clarity and the ambition of carbon neutrality, net zero emissions by 2050. You heard the words earlier on just a few minutes ago from Dominic, when he mentioned nature positive. Nature positive could be that goal, an initial positive goal by 2030, achieved through net zero loss of nature, and reaching a net positive result by 2030 through a nature restoration agenda. So that by the end of the decade, we have more nature than we have now. No less. More natural spaces, healthier populations of species on land, and in the ocean. Carbon neutral and nature positive society, this has to be our double global goal for a sustainable future. In order to achieve such a shared and clear time-bound goal for nature, it's also key to align everyone to the same level of ambition so that governments, businesses, investors, consumers can all contribute to achieving and be held accountable for. This is happening for climate. We need to make it happen for nature. There has to be a global goal that goes beyond being a slogan. This has to be a global goal that can be reduced into a set of specific and measurable targets.

Targets about natural species, to achieve net zero loss of natural habitat, by protecting the key biodiversity areas and the most valuable ecosystems at least 30% on land in ocean --that's what science is calling for -- managing sustainably the remaining natural areas left on the planet and restoring to a natural state was possible as it's been degraded in the last several decades. All these through, of course, a mix of government regulations, business investments and community-led

conservations. China's ecological redlines approach is an excellent example. The way of contributing to a net zero loss of natural habitat and carbon sequestration should be one of the ecosystem services included in the ecological redlining criteria, creating a direct synergy between nature conservation and restoration and the climate agenda. This will also represent a very solid foundation for China to call for the 30% by 2030 global protected areas target to ensure leadership at a global level.

Second set of targets should be around biodiversity and species to curb unsustainable wildlife trade over exploitation of wildlife on land and overfishing in the ocean. Again, China's legislation on wildlife trade consumption, farming and using traditional medicine offered an opportunity to contribute with zero extinction target and recover wildlife populations in decline: from iconic biodiversity like elephants and pandas, to biodiversity of great economic and social value like pollinators and fisheries in the ocean and freshwater systems.

And finally, a set of targets about the footprint of our production and consumption system. The trickiest but crucial. This is about greening the key economic sectors which drive nature loss today, particularly the big five -- agriculture, fishing, forestry, infrastructures, extractive industries -- sectors that actually the World Economic Forum report that touches upon and define pathways for the transition to a net positive, in fact, even more profitable, future. It is also crucial to address the indirect drivers by boosting green and sustainable finance, including redirecting public subsidies to support nature, positive transitions in these sectors, excellent recommendations on green finance, sustainable value chains, production and consumption have been produced by CCICED already in various Special Policy Studies.

So, to conclude, this should be, we believe, some of the key elements to achieve in nature positive goal by 2030 and to be embedded in the global biodiversity framework, making COP 15 in Kunming a Paris-style agreement for nature that should be remembered as the Kunming Nature Agreement, like Paris is remembered for climate. As the host of the CBD COP 15, China's leadership role is critical to move the global biodiversity agenda forward, particularly by inspiring the political negotiations that are ongoing right now with science-based ambition for nature positive society. Science has never been clearer, and awareness has never been greater about the fact that nature conservation is not only an ecological and moral issue, but also an economic, social development, and in fact, an health issue. It is in fact the foundation of achieving a prosperous and equitable society in ecological civilization to which China is so committed to and powerfully positioned to help achieve. Thank you very much, Minister.

Chair

Thank you, Mr. Lambertini. Next, I would like to give the floor to Mr. Winther, CCICED Member, Director of the Norwegian Centre for the Ocean and the Arctic. The floor is yours.

Jan-Gunnar Winther

Thank you, Chair and distinguished Minister. Dear friends and colleagues, I really hope that we can meet someday soon. We can't solve the climate crisis or all the challenges when it comes to biodiversity without counting for what the ocean can contribute. It is a very important part of the solution. So, i will devote my few minutes here to talk about the ocean and in particular the concept of holistic and integrated ocean governance. That's why i have this figure on display. Because my words will be connected to this one.

First, I would say ocean issues has been coming up on the international agenda in UN, in WEF, in China Council, in various bodies, G7 and so on, in the last year. However, my argument is that we still have a close relationship. We live our lives on land in the heart and head when it comes to land versus ocean. But there is no way we can solve the big challenges of the planet today without both taking out the potential of the ocean, using their services, but also keep a healthy ocean that is productive. So, this concept of integrated ocean management (IOM) is a way of balancing various ocean uses and at the same time taking care of the marine environment and the goal of IOM is to integrate and balance various ocean uses and environmental aspects to obtain a healthy and wealthy ocean in a long term, sustainable use of the ocean resources, in ways that preserve the health and resilience of marine ecosystems and improve livelihoods and jobs balancing protection and production. The simple argument here is that there is no wealthy ocean if you don't have a healthy ocean. The only way to have a healthier, then a wealthier ocean, is to have a long-term care for the ecosystem that will pay off.

Also, when it comes to production part of the ocean, integrated ocean management brings together relevant actors from government, business, academia and civil society from the whole entire spectrum of ocean-related human activities to interact towards a sustainable future for our ocean environment. As the figure shows we are both including existing industries, but also new ones as was mentioned here earlier, offshore wind and mining as examples. A key to successful IOM is the use of a knowledge-based and ecosystems-based approach. Stakeholder engagement and coordinated decision making, particularly with ocean businesses, is another central aspect of successful IOM. In the High-Level Panel for Sustainable Ocean Economy that Andrew Steer knows quite well, I think we have done some work on this with a global lens to integrated ocean management. We also looked into a case in Xiamen in China, which have had very good experience with having coordinated efforts also trying to combine and connect land management with coastal and ocean management. But we argue that there is a pressing need to take an integrated approach to ocean management and to identify several central components for successful IOM. Today we unfortunately see too much of a short sighted and silo-based approach. This is a global issue, and we have a lot of potential to make this through integration when it comes to ocean governance. Achieving a healthy, productive and resilient ocean requires taking a holistic perspective on ocean use and management and effectively implementing relevant both national and international management measures. And given the current levels of pressures on marine regions in our ocean, human activities can be viewed in isolation. To preserve ocean health and fully capitalize on the economic potential of the ocean in a sustainable way, we must consider the cumulative impact of all human activities in the ocean, as well as how those activities affect each other and other issues. This is all connected or needs to be tackled in a very connected way.

However, an integrated approach does not remove the need for sector-based management. Effective regulations are, for example, shifting petroleum related activities or pollution, can be achieved only by implementing dedicated and precise regulatory measures and assigning competent agencies to implement them. So, the integrated ocean management is an umbrella combining or integrating all of the sector-based management. The status of the marine ecosystems around the world and their properties and characteristics varies considerably. IOM enables the understanding of the totality of ocean uses and pressures and provides guidance for how to prioritize among those various uses. Governance solutions need to be tailored to the characteristics and problems of the different marine regions, so one size does not fit all. Understanding the context is essential. Governments in partnership with ocean industries needs to ensure that industries do not degrade the environment they are dependent on. It is critical that short term sighted solutions with negative environmental impacts are replaced with long term solutions. Today, important knowledge exists but it's not used in decision making for several reasons, including a lack of efficient science-policy interface. The precautionary principle should be applied where knowledge is insufficient, and where there are threats of serious or irreversible damage. Also, effective ocean governance must consider advancements in technology, and the impacts of climate change and the dynamic nature of the ocean and seas, as well as the interactions and synergies between land, ocean and people.

My final point is about climate change, and in particular climate change adaptation. In the study we did, both in the High-Level Panel for Sustainable Ocean Economy but also in China Council CCICED, we see that an enormous challenge today is to prepare ourselves for climate change also when it comes to the management systems. We need to develop more dynamic, more adaptive management systems, including ocean management. We need, at any given time, to use the best available scientific knowledge to ensure that we are preparing for a future, which has some uncertainty, of course, but we know quite a lot about that, how this development will happen. So, improving today's management systems to become more dynamic and more adaptive is a key finding from our study.

If you allow me to share just one comment that was not prepared for at this meeting. But what triggered me was Michael's comment about offshore wind and I also chatted something about offshore wind in the chat. We are now currently working in Norway with the concept of marine industrial parks, and I know other countries are also looking into that. In our region, we are looking how offshore wind could be a core for combining and coordinating many industrial activities like offshore aquaculture, like green shipping, or seaweed production in restricted area. To have a concentrated and coordinated efforts into an industrial marine park can benefit each other with supply chain sharing, knowhow across sectors, search and rescue, and a lot of benefits from using the same area at the same time. By concentrating activity within one limited area, you can also free area for, for example, conservation or fisheries, which is especially important in in a Norwegian context, because as I said, fisheries are very critical to the offshore wind development. So, by these words, I thank you. And my key message today is that please include and integrate ocean into all thinking of climate biodiversity, and also use the concept of integrated ocean management as the concept of dealing with ocean governance. Thank you.

Chair

Thank you so much, Mr. Winther, for sharing with us your ideas of the ocean management and also governance. I think your experience will be very beneficial to the carbon neutrality target in China. So now we are going to invite Ms. Naoko Ishii, CCICED Member, Executive Vice President, Professor at Institute for Future Initiatives, and Director, Center for Global Commons, Tokyo University.

Naoko Ishii

Ministers and Excellencies. Very nice to be here. Thank you so much for inviting me to the CCICED despite the fact that I left GEF last year, and now joining the University of Tokyo and back to Japan. So really great to continue to engage with this group. When I came back from the international community to Japan, the scenery has changed quite dramatically. Last autumn, that China declared net-zero by mid-century, and Japan followed, and the Korea followed. And the US is now back to the game. So that tide has changed dramatically. And that is really a great thing than actually being Japanese. I'm so happy to be a part of that big movement. But it seems that both countries, Japan and China need to deliver that and how to respond to this high expectation to that 2030, not only just the 2050, but the 2030 Plan. Because by now everybody does understand that to achieve the net zero by mid-century, next 10 years is extremely critical. Unless we find a way to change that trajectory dramatically for next 10 years, that net zero by mid-century will not happen. So, I think that then our responsibility to deliver that 2030 goals, the critical goal, backed by policies, seems they're very political. In fact, we are entering into the very important political time, as somebody already mentioned that then by the meetings, the Biden Climate Summit, and the G7, G20, and to Glasgow. So, the next few months seems to me a really politically important time. The Prime Minister of Japan has just set up a 10-expert committee, to steward and to promote the climate change policy and to go through the next few months. I'm one of these 10 people and the first meeting will take place tomorrow. So, you can see that the kind of temperature is really heating up in Japan. So, from that point of view, I very much admire your plan already towards 2030 which does include the already mentioned by previous speakers, how to handle the hard-to-abate sectors, not only just the easy ones, but then how to do about sectors that are coal powered. These are really important issue for us to deliver. And from that point of view, I just want to make sure that your government and the CCICED and maybe Japan together to handle or find a way to get with other Asian countries to move ahead with handling the difficult issue, like how to handle the coal-fired power plant, because we were considered to be the coal-addicted countries together. We shouldn't fall into that pitfall of using each other as excuse not to move forward. So, I think it's very important for this community to really, to go hand in hand, to find a way to deal with this tough -- politically tough and economically tough -- issue. So that's one thing I would like to do to make sure that, we together, with this international group to come up with a good, solid, and credible plan to move ahead. So that's going to be my commitment to the CCICED, also to the international group and to your government. I'm actually speaking in my private capacity. I just want to make sure that I'm not repeat the same thing that government adore. I just want to make it very clear to you.

I'm supposed to speak about nature. So, from that point of view, maybe my final comment is that then I continue to admire ecological civilization, which is a kind of a guiding principle, or universal guiding principle for the world to achieve the sustainability. I particularly admire two things in your document:

this and how to utilize the large scale spatial planning to combine the climate change security together with the nature, that is a very wise and solid methodology. I want to use it actually, not only in Japan, but also around the Asian countries. Also, another small thing, which I continue to press in the CCICED for the last two years is how to clean up the softer commodity. When I came back to Japan, and to see that the Japanese value chain, I realized that our biodiversity value chain was quite okay if I only take a look at the domestic biodiversity. But when I incorporate the input of food and other things, our biodiversity score really got worse, because our input that actually destroyed a lot of the nature and forest. So that's something that we need to take care of that together. So that then how to make sure that the soft commodity value chain is sustainable, it seems to be really connecting with each other together. And this is going to be another good example to deliver collective responsibility to achieve sustainable development by mid-century. These are my comments and thank you so much. And I'm really happy to continue to engage with this group. Thank you back to you.

Chair

Thank you, Ms. Ishii. Thank you for your very constructive advice and comments towards the ecological civilization. Let's welcome Ms. Kathleen McLaughlin, CCICED Member, Chief Sustainability Officer and President, Walmart Foundation.

Kathleen McLaughlin

Thank you very much. It's so wonderful to be here today among such a distinguished group of sustainability leaders in China, and from around the world. Many of you are old friends, and I'm pleased to make some new acquaintances today as well. It's a timely meeting. In light of this significant environmental challenge, we face around the world, the upcoming climate COP and of course nature COP in Kunming. Increasingly, China and other nations work together to manage such critical issues, not only climate, but also restoration of natural ecosystems. That's very exciting. So as a member of CCICED Advisory Committee, I'm really honored to have been able to participate in the last several years in the work addressing such issues. I'm equally honored today to have the opportunity to share our experience at Walmart as a Fortune 1 company in facilitating systems change in product supply chains for environmental and social sustainability while aiming to sustain economic prosperity for people and economies. Last September, our CEO Doug McMillon, described our aspirations to be what we call a regenerative company, a regenerative company that is dedicated to placing nature and humanity at the center of our business practices. By regenerating, we mean restoring, renewing, replenishing, in addition to conserving. It means, for example, adopting regenerative practices in the supply chain in managing agriculture, forests, fisheries, eliminating waste along product chains, decarbonizing our operations, while advancing prosperity and equity for customers, employees, and people who participate all along our supply chains.

I'd like to share two concrete examples of ways we are making advancements towards such goals in coordination with our suppliers, NGOs and other partners. They illustrate four key points that I'd like to have as real takeaways from the examples. First of all, business can play an important role in this

transformation that we're talking about. Second, there are tremendous synergies, as I've already been pointed out, between climate action and nature. Third, progress requires not only incentives, but also building capabilities and innovation in new practices all along product supply chains, that's really important for us to be able to do this collectively. And fourth, such innovations are what helped fuel the economic growth as well as the better environmental and social outcomes.

So, two examples, the first relates to our efforts in preserving natural ecosystems. In September of last year, the Walmart Foundation, along with Cargill, McDonald's announced an investment of over $6 million in an initiative led by my colleagues here from World Wildlife Fund that aims to make lasting improvements in the grasslands of the Northern Great Plains ecosystem. Now, that's the place where beef comes from one of the places so the program which is known as the ranch systems, and viability planning network, will support ranchers with technical expertise with training tools to help them improve their grazing practices. And by improving the management of 1 million acres over five years, and avoiding conversion of that land, the effort will increase carbon storage. And it will also improve water infiltration and enhance biodiversity of the grasslands. So again, this link between climate and nature while sustaining the livelihood of ranchers. So, you know, it's an interesting example it supports the Walmart Foundations and Walmart's focus on bringing more sustainable and regenerative practices to the food system, and to build connections that can accelerate systems change, as well as McDonald's and Cargill are ambition to reduce greenhouse gas emissions and build a more resilient beef supply chain.

The second example I want to share is about reducing waste while maintaining robust economic activity. And of course, reducing waste is critical. It's a critical part of nature, conservation as well as climate. So, our goal overall is to break the link between consumption and waste. And we'd like to accelerate moving toward a circular economy, where the materials that get used to produce products and packaging and so on stay in use, instead of being thrown out at the end of the life. So, with respect to packaging waste, as an example, we work with thousands of our suppliers to accelerate reductions in improvements in packaging, design, setting reduction targets, identifying innovations to scale key packaging changes across supply chains. Part of the capability building includes working sessions, publication of resources, for example, sustainable packaging playbook, packaging summits, where we've had over 2000 attendees to work on these issues. And another example, we provided a grant to a tool called Plastic IQ that was produced by a group called Systemic. It's going to be a publicly available tool that companies can use to optimize their packaging strategies not only to achieve environmental improvements, but also economic outcomes, so it helps people optimize those considerations. With respect to food waste, we reduce waste, of course in our own operations through increasing the sell through date, sell through a food, better forecasting enhanced fresh distribution centers, discounts on foods that are close to expiration. Due to these efforts, just in one year, for example, we avoided 57 million units of food waste versus a previous year. We also donate the unpurchased food where we can for people or for animal feed, compost or energy conversion. We also encourage our suppliers right through the supply chain to measure and report and reduce the food waste. So, helping them with reprocessing, donating, recycling, standardized date labeling. We are part of WRI's 10x20x30 initiative, where 10 large retailers are working with 20 of their suppliers to cut food waste in half by 2030. So, another example of capability building throughout the supply chain. All of these initiatives relate to our umbrella program called Project Gigaton, where we now have over 3000

suppliers working with us in initiatives related to energy, product design, waste reduction, packaging, sustainable agriculture, forests, oceans.

And again, you know, our main goal initially was climate. But now we've discovered that the same initiatives can produce tremendous benefits for nature. So, we've elevated our ambition, and we're pursuing both. And you know, as of a year ago, we were reporting about 230 million metric tons emissions cut. And we'll update that number this year. It's substantially bigger, I can't release today, but stay tuned for that. So, in conclusion, you know, Walmart's been operating in China for 25 years. In China, as elsewhere, we believe as a company in maximizing shared value. That means we believe we create value as a business by serving our stakeholders. We think that this approach can help solve for business and societal needs through system wide change. We're excited to continue to aim to lead as a business and then bring in our philanthropy alongside collaborating with others, governments, NGOs, other companies to accelerate changes to systems. Personally, I'd like to say I've been honored to work with CCICED over the last several years, and I'm really excited about the opportunities that lie ahead, for CCICED, to play a positive role, in controlling pollutions, for climate and nature, and happy to share additional examples in the future. And I'd like to say I really look forward to the time when I can return to China and everyone in person hopefully this year. Thank you!

Chair

Thank you, Ms. McLaughlin, thank you for sharing with us these case studies and examples. We hope you can come back to China soon. Dear colleagues, we just finished the second session. I would like to take this opportunity to thank, again, those speakers during the second session for giving us excellent presentations. The third session of this afternoon's discussion is integrating the climate and the nature agendas. Carbon neutrality, nature conservation and CBD COP15, these are closely related. This January, China released the Guiding Opinions on Integrating and Strengthening Efforts in Climate Action and Ecological and Environmental Protection. The emphasis of this document is on the synergy, that is, comprehensively addressing the synergies between climate change, ecological conservation, environment protection, and pollution reduction. How can we coordinate these? The Chief Advisors of CCICED are also leading the drafting of a Nature-based Solution report, to provide support for strengthening the synergy between climate actions and the nature protection. First of all, I would like to give the floor to Mr. Peter Bakker, CCICED Member, President of WBCSD.

Peter Bakker

Thank you very much, Minister Huang. Members of the CCICED, it's very good to see all of you. I know people are saying that we hope to meet again soon, but it's actually quite eco-friendly to do it this way. And the other thing I really hope is that despite all the uncertainties in the world, we really can continue to foster international collaboration here in this CCICED, because it's more important than ever, that we do. I know we're short on time, so I'll cut my talk a bit short. But here we go.

I think it's critical to integrate the topics of climate and nature agenda. They are amongst the biggest threats that face humanity. To avoid dangerous, irreversible climate change, we must globally reach net zero emissions before 2050, as Marco Lambertini said, become nature positive by 2030. This is, of course, a critical year, it's time to raise political will. But it's also time to really get business to step up and deliver. China will play a critical role, the COP15 in Kunming as mentioned. We'll be working together with many others in the alliance called Business for Nature, to bring the voice and commitments of business to that meeting. We see that private sector is now stepping up and is really integrating climate and nature agendas, more and more. There's real collective action that is happening to tackle climate change, and to hold and reverse nature loss in the coming decade. The integration of these two is critical, you know, our world is facing three pressing global issues, the climate emergency, the loss of nature, and growing inequality. Each of them on their own, can they ensure the safe operating space for humanity. And of course, the licensed operate for business. If there's one thing we've all learned from the pandemic, is how interconnected these challenges actually are, and how ill-prepared the world is for these types of shocks. This is why at WBCSD last Thursday, we launched Vision 2050: Time to Transport, a Vision that says 9+ billion people living well within planetary boundaries by mid-century. Relatively simple words. What we really mean is we must change everything: the energy we use, the material we use, the food we produce, unhealthy diets we provide. So, we're really talking about an era of system transformation. That will be pathways to transform the economy the way business works, the products and services that we use.

On the topic of integrating the focus of climate and nature, we launched a report mapping nature-based solutions and natural climate solutions. We believe this can help, as a first step to making sure that nature-based solutions are understood correctly by business. It lays out clear definitions, clarifies the scope for nature-based solutions, and in particular natural climate solutions to accelerate consistent and credible action that are of high quality. These solutions can provide up to 37% of cost-effective greenhouse gas mitigation needed by 2030. In short, we have many projects in China and around the world, where business now leads the transformations toward this common vision for 2050, working together with governments, regulators, investors and all people. So let me end by thanking CCICED for your work to integrate nature and climate, and keep you focus on science, case study measurement and policies to advance nature-based solutions. Thank you very much, Minister.

Chair

Thank you, Peter, for the wonderful remarks, I would now like to invite CCICED Special Advisor, Mr. Manish Bapna, Executive Vice President and Managing Director of the World Resources Institute.

Manish Bapna

Thank you very much. It's an absolute privilege to be here with you today Minister Huang, and all of our CCICED colleagues and friends. I want to put forward four recommendations on integrating the climate in nature agendas on reaching a Climate Neutral nature positive goal. All four of these recommendations are both good for climate and nature. But they're also good economics. They reduce

risk. They create new market opportunities. They increase productivity. We need all kinds of countries to act but We believe China has a particularly important role to play. China's vision of an ecological civilization, the major steps they've taken on climate in nature over the past couple of years, the hosting of Kunming CBD COP, the role they play in advancing the nature-based solutions track for the climate COP, create an opportunity for China and expectation that China takes steps in these four areas.

So, the first, the first observation, recommendation we make is that we must protect forests, wetlands and coastal ecosystems around the world. It's important to recognize that the world's remaining intact and primary forests, key wetland coastal ecosystems are ground zero for addressing the intertwined climate and biodiversity challenges. If we lose these battles, we certainly lose the biodiversity war, and a good part of the climate war. In order to reduce pressure on these critical ecosystems, we need to understand that the expansion of soft commodities is the number one driver of tropical deforestation. And China is also the number one importer of soy, of beef of timber pulp and paper and palm oil. But there's a real incredible opportunity this year to green soft commodity supply chains, to produce, to trade, to purchase soft commodities in ways that are legal and sustainable. But we've had the privilege with colleagues in China to lead the CCICED study that makes the case why this is both in China's economic interest, and how China can take important steps to do so. There is also a very active international conversation that China is a part of called the Forest, Agricultural Commodity Trade Dialogue. That's an important part of the climate negotiations. China has taken some significant steps the past year towards sending signals around greeting soft commodity supply chains. So, Minister, one of the things that I think would be really important contribution would be at the Kunming COP, if you could send a clear policy signal that a shift towards purchasing legal and sustainably produced soft commodities, this would be warmly welcomed, I think, by the international community.

Second, we need to produce food in a manner that leads to net zero, nature positive future. China is the world's largest agricultural market. $700 billion a year are spent in food agricultural subsidies around the world. Only 15% of the subsidies goes towards building public goods. Much of these subsidies are poorly targeted, they're harmful to nature. China has taken some significant steps in recent years to reform agricultural subsidies to move away from harmful subsidies they reduced subsidies for chemical fertilizers, pesticides, which are a very good use. We would encourage China to take the next step and shift subsidies away from the production of food staples, but towards infrastructure development, research into more nutritious and sustainable foods, increasing social protection and safety nets for vulnerable groups in rural areas. Accelerating ongoing agricultural subsidy reform in China would be good for nutrition, good for productivity, and also good for the environment.

Third, we need to reduce food waste, and shift to more sustainable diets. We know food waste, and boss globally 8% of greenhouse gas emissions. President Xi Jinping recently announced the "clean plate 2.0" campaign, which is a commitment to drastically reduced food waste. Excellent news. We would encourage China to develop a national vision and strategy as it already is starting to do but to also embrace the SDG Goal 12.3 to reduce food waste by 50% by 2030. This would be a very good move both for nature for climate, but also to reduce waste, improve economics. We would also encourage China to look at plant based as a substitute for importing soy and beef. It's a healthier option, better for biodiversity and climate reduces reliance on complex global supply chains. The cost of

alternative proteins is dropping fast. We believe China can be a leader in this innovative high tech, high growth sector.

And fourth and finally, we would argue that restoration of degraded agricultural and forest lands in China and internationally are incredibly important. China has taken major steps in restoring degraded agricultural lands. It's contributed 25% of the global net increase in canopy area over the last 20 years. We would encourage China to not only continue with its ambition in terms of restoring degraded agricultural and forest lands, perhaps by increasing its commitment in its NDC on this issue, but to export what it has learned, and how other countries can also improve restoration. We would encourage China to think about the support it can provide to Africa to restore its degraded agricultural and forest lands.

So, in sum, how do we bring these two agendas together, the climate and nature agenda? Four points: we believe protection of critical ecosystems by greening soft commodity supply chains, producing more food on existing agricultural land by reforming agricultural subsidies towards public goods, reducing food waste, shifting towards more sustainable plant-based diets, restoring degraded agricultural and forest lands. This is what we at the World Resources Institute called protect, produce, reduce, restore, good for climate, good for nature, good for economics. Thank you very much.

Chair

Thank you, Mr. Bapna for your excellent suggestions. Let’s welcome CCICED Member, President and CEO of International Institute for Sustainable Development, Mr. Richard Florizone. Mr. Florizone, you have the floor.

Richard Florizone

Thank you, Minister Huang and colleagues. It's a privilege to be with you for this discussion, especially as a new council member, and particularly on the topic of nature and climate. My organization IISD, which you know well, has been working on that issue for over two decades. In fact, as a new council member, my first responsibility was moderating a joint panel between CCICED and IISD on the benefit of nature-based solutions, where we had registrants from over 70 countries. And I was particularly interested to hear about the important actions China has taken, including on water conservation and reforestation since the 1970s, which have had great benefits for both climate and nature.

We've talked today about the 14th FYP, and its multiple goals, advancing harmonious coexistence of human and nature as one of the top priorities for China. The Plan also calls for high quality economic development, ecological conservation, and green infrastructure. And I was very interested at the start, if we go back to the start of our session today, Mr. Liu spoke about the need for synergy, the need for local incentives, and the need to support economic growth. I mentioned all that because the main point I want to make to you today is that nature-based infrastructure is a highly effective strategy to achieve those priorities, if we work together to overcome several challenges.

So first, a quick introduction. When I say "nature-based infrastructure", I'm talking about a particular kind of nature-based solution that uses natural features, sometimes in combination with gray infrastructure, to provide engineering functions, as well as ecosystem services and social benefits. All of you will be familiar with examples of NBI like green rooftops. But there's still also some very innovative new examples out there using new technology. One that we've used at IISD is called floating treatment wetlands, where we have artificial islands that enable aquatic plants to grow and take up nutrients and contaminants in much deeper water than they would normally grow in. Nature based infrastructure, or NBI, offers China the opportunity to meet some of its infrastructure needs, while also capturing the benefits of nature-based solutions. All of you know these advantages, climate mitigation, adaptation, nature preservation, and by diversity. But I want to add that when these are done right, in our experience, these investments can also positively engage citizens and deliver a very strong return on investment. We've seen water management projects in Canada that we've worked on that have positively engaged farmers supported agriculture and delivered an ROI that is more than tenfold.

So, if these are so great, what are the challenges? Well, the challenges to greater nature-based infrastructure and nature-based solutions have been recognized by others. They include measurement standards, and knowledge of best practices. There's a lack of consensus on what constitutes successful NBI and of the metrics to validate the benefit Impact of projects. In fact, there was a paper just published earlier this year by McKinsey and the World Economic Forum that said just this, that, to embrace the promise of NBI we need not only standards, but also the sharing of case studies, strengthening of markets and regulatory clarity and better collaboration among stakeholders. At IISD, we agree wholeheartedly. That is why this year, we are launching the NBI Global Resource Center in partnership with the GEF, Global Environmental Facility. This NBI Resource Center will serve as a worldwide hub to share and develop performance metrics, case studies and global best practices in nature-based infrastructure. And that's our vision to be the world's leading global hub on nature-based infrastructure. we'll achieve that vision by providing data training and sector specific valuations based on the latest innovations in systems thinking and financial model modeling. Now, China's a large spatial planning and ecological redlining offer an excellent platform for NBI we'd be happy to work with partners to identify and feature relevant Chinese case studies, via our NBI Global Resource Center, as well as to provide support to China with data and analysis.

This resource center will also build on IISD’s significant experience and track record at the nexus of climate and nature. That experience includes, for example, our National Adaptation Plan or NAP Global Network, where we directly assist over 40 developing countries to prepare for climate change. Since NBS can play such a powerful role in adaptation, the NAP Global Network gives us a unique platform to both scale up NBIs and develop deeper experience around the world. And so of course, we welcome MEE and other Chinese stakeholders to actively participate in that network and in this resource hub, so that we can assist China in accessing the expertise to enhance the role of nature in its own adaptation strategies.

In summary, we can all agree that nature-based solutions and nature-based infrastructure are really powerful solution to the climate challenge with a wide variety of environmental, social and economic co-benefits, reaching that synergy that all of us are yearning for and talking about today. The challenge lies

in mainstreaming these types of investments, which requires the creation of common standards and sharing of best practices. That's the challenge and the opportunity that we are taking on with the GEF and now tackling it head on through our NBI Global Resources Center. And so, we look forward to working with China, and everyone in this room to realize this vision and the promise of nature-based infrastructure to achieve a carbon negative and nature positive future. Thank you very much.

Chair

Thank you very much, Mr. Florizone, very good comments. Thank you so much. We would like to also continue our cooperation and strengthen cooperation with IISD. Now we are going to invite the CCICED Special Advisor, Research Director of Global Economy and Finance of Chatham House, Ms. Bernice Lee.

Bernice Lee

Thank you very much, Minister. Friends, Colleagues, CCICED Members, Special Advisors, I'm very honored to be here today. I would like to start by saying something pretty obvious, which is that our environment super year has now turned into a year of spinning plates. And so, it is always good to return to CCICED meeting where we see the familiar but also many new ideas, lots of goodwill, and also a lot of activities.

So, I have a couple of very simple points I want to make today. So, in a world of spinning plates, in a world where we're going to have a lot of delivery that we need to do, more important than ever, we need to learn to join the dots better than they ever did. In this particular case, in the context of climate and biodiversity.

Now, as we recover from the impact of the pandemic, I'm only assuming, Minister, that in Kunming, during COP15, one of China's offer to the world would possibly include being the chair and facilitator for some of the financing that we need for nature that has to go forward. If there is going to be a public finance package, I would like to start by saying that in a world where public finances going short, in many, many parts of the world, the same pot of money has to go much further than before. It doesn't really matter what they were designated for. So, if the money was meant for nature, we now know that in addition to nature it has to deliver for climate, you also have to deliver for jobs as well. So, for first point I want to make is that in a world we need to join the dots finance actually public finance, but not only public finance, would have to go on much longer way. We need to make sure that money that is going to be designated for delivering on nature and by the budget department says we'll also have to deliver on climate related deliverables as well. This is not only true for public finance it's also true for private finance. This week we had some amazing news on Monday. For example, that something like a third of global asset under management is now got asset managers with BlackRock and I think vanguard joining. That's lots of private finances also for the net zero. The same is true for private finance, not just for public finance, at the same pot of money that is going to go for one thing, doesn't matter what we are labeling it for, there's a bit delivering for multiple goals.

If you're talking about the connector, in addition to finance, trade is another ultimate connector, which is why building a wall Manish said earlier. It is extremely important that we look at for example, deforestation-free supply chains, as one way to connect the nature and climate agenda. Starting with Kunming, but not only limited in Kunming but also beyond, in terms of COP26 of climate but also in china's policy as well. The deforestation-free supply chain will be one way for us to connect the kind of nature in a very vivid and operationalizable way.

Also building on what I think Manish and others have said as well that investing in, I think Kathleen as well, building on food system, resilience and regenerative agriculture is one of the many ways too for us to focus on. This will deliver for both climate and nature.

This brings me to my fourth point which is that if for example public finance, deforestation-free supply chain, etc. are something that Kunming can offer the Glasgow Climate COP, from the other end, net zero integrity and the debate around climate on net zero integrity especially around offsets and around the importance of nature-based solutions for both is one way for us to connect the dots as well. There we need to make sure that net zero integrity includes also net gain for biodiversity and nature. This would be one way of making sure that all the dots that we need to be connected are connected.

So let me conclude Minister by saying that I believe that it is more than ever important for us to connect the dots through finance through trade, in this better case supply chain, through food system resilience, in connection with net zero integrity. Last but not least we would appeal that people and investing in people is the ultimate connector that can connect all these pieces that we're talking about. So, we must invest in climate nature and people in such a way through all these possible connectors that can help us deliver all the goals that all my esteemed colleagues before me and hopefully after me as well will continue to advocate and discuss. Thank you very much.

Chair

Thank you so much for your wonderful remarks and now we are going to invite the CCICED Member, Chief Executive Officer of the Nature Conservancy, Miss Jennifer Morris.

Jennifer Morris

Thank you so much. Thank you, Minister Huang. Distinguished Members of the CCICED, it's so great to be with you today. I look forward to doing it in person very soon. At the Nature Conservancy we really appreciate the strong statements and commitments that President Xi and other Chinese leaders have made in support of carbon neutrality and a nature positive future. I would also like to echo my colleagues support today for the efforts of china in pursuing a path for carbon neutral nature positive and as Bernice just said an equitable future for us all. So, the Nature Conservancy has been working in China for over 20 years supporting china's domestic conservation objectives protecting its forests and wetlands as well as helping China to manage effectively its river basins to planning to advise on

national parks and protected areas as well as more recently on carbon markets and natural climate solutions. Today, Minister Huang we have two bold suggestions for your consideration on the critical topic of financing. As we know that conservation without funding is simply conversation.

First, we believe that China's leadership in the biodiversity convention process and as the host this year in Kunming can really help us to solve the global conservation finance gap. Secondly, we believe that china's international financial leadership can both unite the climate and biodiversity agendas and help solve the growing sovereign debt crisis in the developing world.

The Financing Nature report that the Nature Conservancy, the Hank Paulson Institute and Cornell university recently released which established at the current global financing gap for biodiversity is $700 billion per year. Closing that gap would require a four-to-five-fold increase in annual biodiversity finance. So that sounds like a lot. However, the good news is that this would still cost us, as a society, less than 1% of annual gross global GDP. It is a very small price to pay to secure the nature of our economies, our livelihoods and the nature's health that we all depend on. So, this report identified that closing the gap will require a combination of reducing financial flows harmful to biodiversity, especially as has been discussed in the agriculture sector, as well as increasing positive flows through biodiversity offsets, nature-based climate solutions, and increasing green financial markets.

Under China's leadership in the UN CBD process, we recommend the global biodiversity framework adopts a global target for the world to collectively close the biodiversity finance gap this decade, and push for world leaders to make this commitment at Kunming. Furthermore, we would recommend that all countries develop and implement national biodiversity finance plans which would identify their natural finance gaps and adopt domestic policies to reduce harm to biodiversity and generate new revenue for biodiversity. New and additional foreign aid flows should assist countries in developing these plans and implementing the unnecessary policy reforms.

Now secondly our suggestion is around the importance of china's leadership on sovereign debt. China's overseas lending has increased substantially over the last decade. With the COVID economic crisis many countries are finding their sovereign debt levels unsustainable and looking to creditor countries for some relief working with international partners. We see this as an incredible opportunity for China and other nations to help countries to invest in their climate and biodiversity targets. Today, about a billion dollars of finance for biodiversity conservation has been generated through the mechanism of debt for nature swaps over the last two decades, as Scott referred to in the beginning. China has a unique opportunity to lead a global movement to reinvent and scale debt for nature swaps and solutions by initiating a series of these swap deals with its partner countries. A debt for nature swap initiative which China could announce when it hosts the biodiversity convention meeting in Kunming would accomplish two important things. First, it would show Chinese leadership and global macroeconomic governance by providing much needed debt relief to poor countries. Second it would provide an innovative source of finance for both biodiversity and climate change. The Nature Conservancy has done 10 of these deals globally over the last years. We'd be pleased to work with the Ministry of Ecology and Environment as well as CCICED partners to explore how such a mechanism could be established. Thank you again Minister Huang and the entire leadership in china for hosting us today. It

has been truly an honor. I look forward to working with all of you and hopefully seeing you again in person one day soon.

Chair

Thank you so much, Ms. Morris, for giving us these very constructive comments on the finance issue. So now we are going to give the floor to Mr. Harvey Locke, CCICED Biodiversity SPS expert, Chair of the IUCN Beyond Aichi Task Force.

Harvey Locke

Thank you Minister Huang and Members of the CCICED. I will be brief and focused. We're concerned about climate change because of the impacts climate change has on natural systems. We don't really care about how many parts there are in the sky. We care about what it does to the earth. Climate change harming natural systems, therefore, causes problems that we don't want, such as releasing carbon to the atmosphere, making natural systems less able to take up the carbon that is already in the atmosphere, and also makes our natural systems less able to adapt to climate change.

This is why we need to be thinking about nature-based solutions and the climate as the same problem. They are one and the same thing. Our nature-based solutions should never harm intact nature as a primary point. They should protect intact nature first, to secure existing carbon stocks in nature. Many of our speakers have given examples of that grasslands, forests, peat lands and wetlands. Nature based solutions are most effective when they protect intact nature. And when we restore nature, we should use native species and ecological restoration, not just planting trees anywhere. Of course, biodiversity conservation co-benefits increase effectiveness of carbon storage and support other goals of eco civilization.

I wanted to stress, Mr. Minister, that we have a fundamental problem in the past of non-integration of climate and biodiversity. They've been too often seen as two separate topics, even inside ministries, they tend to be two different divisions that don't talk to each other. This is our special opportunity to bring those together. This year with the Kunming COP, and the Glasgow COP with the UK saying they want to have nature at the heart of the climate COP for the first time, we have an extraordinary opportunity to integrate ideas.

You've heard this idea of integrating goals for nature, the climate and human development, expressed as this idea of "an equitable, nature positive, carbon neutral future". And I want to just share with you the idea that globally eco-civilization, which is a theme for the Kunming COP, could easily be linked to this idea of an "equitable, nature positive, carbon neutral future", such that that becomes the focus of bringing these things together. And I might recommend that the CCICED be given direction to explore how an equitable nature positive carbon neutral future, and the idea of eco-civilization could come together as a means of guiding top level integration of the Convention on Climate Change the

Convention on Desertification and the Convention on Biological Diversity. So, I might end with that suggestion, Sir. Thank you very much for the honor of speaking to you.

Chair

Thank you so much, Mr. Locke. Thank you so much, you talked about the relationship between biodiversity and climate change, and how we can really integrate them with ecological civilization at the very top level. This is a very good idea. Members and Special Advisors, thank you so much for your comments. Due to the time limit, we will not have a discussion session. But I think this is already a very good session. It is my honor to chair this meeting, as the CCICED Executive Vice Chairperson, to have this discussion with you. I also would like to thank all the members, as well as the advisors, to meet with us online, virtually, and to have this session so we have discussion on the issues of carbon neutrality, carbon peaking and the biodiversity, and also the important issues that we are all interested in. Everyone, I hope that we can see each other offline, very soon. I do have a strong wish, as all of you. I believe the time will come very soon when we can meet each other in person, when we drink coffee together, or chat with each other in person. Today, we talked about the how to achieve carbon neutrality and biodiversity conservation and recovery, nature-based solution, as well as strengthening international cooperation on ecology and environmental protection, you have expressed constructive and inspiring ideas. I believe that these will go by very good reference to the development and implementation of a carbon peaking action plan and for the preparation of COP15. The CCICED Secretariat will summarize and distill your very wonderful comments. These will be sent to the relevant departments or local areas for a reference when they develop their 14th FYP and sectoral plans. Friends, Council Members, and Special Advisors, your wonderful insights and inputs will definitely play a role in facilitating the carbon peaking, carbon neutrality, biodiversity conservation and environmental, ecological protection, and you will definitely play a very constructive role in all these regards.

In multiple times, you mentioned that we need to dedicate to the green, inclusive, equitable restoration and transformation; value the role of nature; reshape the relationship between human and nature, and eco-civilization. These are well recognized and highly aligned with the new developmental philosophy which China is implementing in a deep manner. International society also has a high level of consensus on the importance of green and low carbon development. With this as a basis, in the future, we can adopt an attitude of openness and inclusiveness, meet each other halfway, draw hands together to build a clean and beautiful world. In this aspect, CCICED will play a bigger role. I believe that its role will be more significant. This is the last year of Phase VI of CCICED. Considering the development of pandemic control, in Q4 of this year, we might be able to meet to each other in person. We hope that in Q4 This year, we can meet offline to organize this 2021 CCICED AGM, the secretariat will be in close contact with all of you to keep you updated on the working progress, and the updated situation on the prevention and control of pandemic. Next year will be the 7th Phase of CCICED. We have started to prepare for Phase VII. Some partners have clearly demonstrated that they're going to support the Phase VII continuously. They have offered us with constructive suggestions. Phase VII of the CCICED will continue to serve as international high-end think tank and two-way communication platform, continue to gather the wisdom, both home and abroad, to carry out high quality SPS; offer farsighted, precautionary policy recommendations, promote the development of a beautiful China, and a green,

prosperous world. I hope that all of you, as always, can support the work of CCICED. I believe that with the joint efforts of different stakeholders CCICED will have a better future. Thank you!