



## CCICED Sub-Working Group | Nature-Based Solutions

April 6, 2021 7:00 – 9:00 AM EST

### SUMMARY NOTES

#### OPENING REMARKS

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**Professor LIU Shijin**, CCICED Chinese Chief Advisor, kicked off the meeting by providing an overview of recent policy updates in China. He noted the growing interest in applying nature-based solutions (NbS) to climate actions, adding that NbS could also bring synergistic effects on solving many other challenges facing China today, namely biodiversity, ecological recovery, pollution prevention, and economic growth. He underscored the Chinese philosophy on following nature's laws and called for incorporating such traditional wisdom in the research, implementation, and communication about NbS. He also highlighted the importance of cultivating consensus, introducing international experiences, and identifying domestic case studies.

**Mr. Scott Vaughan**, CCICED International Chief Advisor, expressed gratitude to all participants' contribution to the sub-working group's scoping work, which set to identify future work priorities and solid solutions for China. He outlined four major aspects of the sub-working group's work to guide the discussion: 1) identifying the science foundation of NbS; 2) presenting and organising case studies; 3) measuring the cost and return; 4) policy pathways, focusing on scalability, bankability, and private sector engagement.

#### SESSION 1: SCIENCE, DEFINITIONS, SAFEGUARDS

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**Mr. Thomas Lovejoy**, Senior Fellow, Biodiversity and Environmental Science, UN Foundation, shared the larger picture of NbS in linking the biological and physical system by reviewing the role the biological and geological process in bringing down the CO<sub>2</sub> level twice in historical periods during which the CO<sub>2</sub> level was higher than today. He also pointed out the CO<sub>2</sub> in the atmosphere from destroyed terrestrial ecosystems is equivalent to what stays to an extent terrestrial ecosystem, which reflects the atmospheric consequences of climate change, as well as the opportunity for restoration (Woodwell Climate: [Soil Carbon Debt](#)). At last, he highlighted the dual benefits of ecosystem restoration on carbon sequestration and the ecosystem (The [Dasgupta Report](#)).

**Ms. LI Lin**, Director of Global Policy and Advocacy at WWF International, recommended considering positioning NbS as a preferred solution to climate change, as well as to societal challenges. She highlighted the importance of coordinating different layers of land in spatial planning and pointed out that carbon sequestration, as one of the biggest ecological services, has not been considered in the ecological redlining and zoning at this moment. She also shared a few other remarks: 1) NbS provides an opportunity to mainstream nature and biodiversity; 2) financing NbS needs not only generating new funding but also removing harmful subsidies and realigning the financial flow to conservation; 3) China has carried out some experimental work on natural resource asset accounting. She suggested setting up a task force under the sub-working group to explore the synergies between NbS and other Special Policy Studies (SPS).

**Dr. ZHANG Xiaoquan**, Chief Scientific Officer, The Nature Conservancy, acknowledges the challenges in reaching a common definition for NbS. He suggested focusing on deepening the understanding on the key features and the science foundation of NbS. He provided insights on identifying the pathways, categorisation and the connotations. Dr. ZHANG recognised the necessity of raising awareness on NbS, while warning the risk of generalisation and misuse of the concept for greenwashing purposes. He concluded that NbS set to restore, conserve, and imitate nature under the inspiration of nature.

## SESSION 2: CASE STUDIES COMPARABLE CRITERIA

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**Mr. Laszlo Pinter**, Senior Fellow, IISD; Professor and Head of Department of Environmental Sciences and Policy, Central European, shared the progress of “Naturvation”, an EU project aiming to understand the potential of NbS in the urban context. The project finds NbS as a new paradigm, standardizes the language and terminologies, and develops an [Urban Nature Atlas](#). The project concludes that NBS addresses multiple SDGs and has the potential to contribute more, including green recovery. He outlined the challenge of identifying integrated business cases addressing societal challenges and the importance of tools (i.e. [Nature Navigator](#) and [Urban Nature Explorer](#)).

**Dr. ZHU Chunquan**, China Head, Tropical Forest Alliance, World Economic Forum Beijing, commented that the criteria should be based on the contribution of natural assets and ecosystem services to the economy and society. He emphasized three bottom lines: 1) preserving and adding value to natural and ecological assets; 2) enabling continuous ecological services to the wellbeing of human being; and 3) causing no harm to ecological assets nor to the self-restoration and resilience of ecosystems. He pointed out that any analysis on NbS should be made 1) within a limited time unit and spatial scale, taking into consideration the mutual diminishment and/or add-on effect among different ecological services; 2) based on the openness and fairness in the allocation of resources among different stakeholders; 3) at a moderate spatial and time scale in comparison to the short-/mid-/long-term impacts of engineer-based solutions.

**Mr. SHI Lei**, Researcher, International Centre for Bamboo and Rattan, addressed the importance of respecting the non-linear, complex ecological system; not following the internal rules of the natural system could lead to systemic collapse (Biosphere 2). Regarding criteria, he suggested considering the multi-outputs of NbS, respecting the differentiated rules under different scales, limiting the project assessment to a certain spatial and temporal, and promoting the integration of local species, community, culture, and policy, as well as existing projects. He stressed that NbS is multi-sectoral, multi-space, multi-stakeholder by nature, which requires comprehensive consideration in project design and implementation.

### **SESSION 3: MEASUREMENT, COST-BENEFIT ANALYSIS AND BUSINESS CASE**

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**Mr. Robert Smith**, Principal, Midsummer Analytics, Former Director of Environment Accounts and Statistics, argued the prevailing analytical frameworks such as cost-benefit analysis (CBA), cost-effectiveness analysis (CEA) and economic impact analysis (EIA) do not serve for NbS, for the following reasons: excessive market-orientation, tailored to the traditional solutions, and difficulties to adapt to NbS. He recommended exploring emerging alternatives such as the “inclusive wealth” model proposed in the [Dasgupta Report](#), which measures the contribution to national wealth rather than contribution to GDP, income, and employment as a proper basis for evaluating investment options, as the framework for evaluating the economic viability of NBS.

**Mr. REN Wenwei**, Director for China Surface Water Program, World Wildlife Fund, pointed out WWF's many experiences on Yangtze River conservation can be now categorised as NbS. He shared two case studies carried out by WWF: 1) Since 2002, the initiative of re-establishing seasonal linkage of 60+ rivers and lakes increased the resilience of natural watershed and resulted in multiple outputs (i.e. restoration of threatened species, increasing access to clean drinking water, increased capacity on flood control); and 2) A bankable and scalable NbS case in Rhine estuary in Netherland where the ecological service resulted from wetland restoration is purchased by the government and paid off through public-private partnership (PPP) on affordable housing development. Dr. Ren added that two potential bankable NbS cases were already identified in the Yangtze River economic zone.

### **SESSION 4: POLICY PATHWAYS**

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**Mr. Dimitri de Boer**, Chief Representative of the China Office, ClientEarth, pointed out the inadequacy of regulations on NbS worldwide because of the difficulties for lawmakers to grapple with the complex concepts of NbS and to materialize the cross-cutting multi-benefits. He shared two exceptional cases: an executive order in California ([Expanding nature-based solutions](#)), and the MEE's [Guiding opinions](#) (2021). He recommended integrating NbS in China's legal system, policy frameworks and spatial planning, prioritising Yangtze River protection, climate adaptation, and disaster protection and prevention. He also suggested focusing on regulating supply chains as a first legislative pathway, in addition to prioritizing mitigating risks in the BRI and addressing harmful subsidies.



**Professor LI Yu'E**, Chinese Academy of Agricultural Sciences, provided a brief introduction on China's policy initiatives on promoting sustainable and green agriculture, grassland eco-compensation and the fishing ban in key areas of the Yangtze River Basin. She acknowledged the increasing notion in China on using carbon sequestration as a solution to climate mitigation. Prof. LI also shared the recent progress of the of the upcoming UN Food Summit: 1) 3 approaches are identified to [“Boost nature-positive production”](#) (namely, protection of the ecological system, sustainable management, and recovery and restoration); and 2), a list of 22 NbS are identified through questionnaires and submission, and it will be further narrowed down to a shorter list prior to the Summit. Action Track 3 of the UN Food Summit: 1) protection of the ecological system, sustainable management, and recovery and restoration are identified as three key approaches to [boost nature-positive production](#), and 2), a list of 22 NbS are identified and will be narrowed down to a shorter list prior to the Summit.

**Mr. QIU Jie**, Research Center for Ecological Protection and Restoration, Nanjing Institute of Environmental Sciences, MEE, shared about China's policy initiative “Ecological Redline” which was first [introduced](#) in 2017 and [matured](#) in 2019. He highlighted the Ecological Redlines not only cover all areas of great ecological importance and fragility but also areas that cannot be identified now but are potential of ecological value. He addressed three bottom lines for the Ecological Redlines: 1) no arbitrary change of use; 2) no decrease but increase; and 3) prohibition in the principle of human activities in core protected zones, and strict prohibition of exploiting and productive construction activities in other areas within the Redlines.

**Mr. Bob Tansey**, Senior Advisor, The Nature Conservancy, shared how NbS can be used in solving the challenges in agriculture reform and nonpoint source pollution reduction: regenerative agriculture, urban environmental markets, and water fund for eco-compensation. He added that altogether, the three NbS approaches could achieve a great reduction in nonpoint source pollution while producing added benefits in line with the goals of the Yangtze River Protection Law.

## **SESSION 5: RECOMMENDATIONS ON NEXT STEPS**

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**Professor WANG Yi**, Team Lead, CCICED SPS Climate; Member of the Standing Committee of the 13th National People's Congress; Vice President, Science and Technology Strategy Consulting Institute, the Chinese Academy of Sciences, pointed out the crucial importance of finding an accurate and effective position of the NbS in China that is problem- and goal-oriented. He also outlined a few priorities for future work: 1) carrying out quantitative analysis on the cost and benefits; 2) enhancing the coordination across ministries; 3) strengthening international cooperation; 4) identifying comparable case studies of traditional projects; and 5) increasing the influence and acceptance of NbS in CBD COP15.



## CONCLUDING COMMENTS

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**Professor LIU Shijin**, CCICED Chinese Chief Advisor, noted that many past initiatives in China could be categorised as NbS. He addressed the people-centered principle in furthering NbS practices in China. Echoing the participants' speech, Professor Liu proposed three future work priorities: 1) exploring the application of “inclusive wealth” accounting in the Chinese context; 2) strengthening the recognition on the conviction of NbS to guide conscious implementation; 3) integrating good practices on NbS in China's upcoming provincial and sectoral specific 14th five-year plans.

**Mr. Scott Vaughan**, CCICED International Chief Advisor, thanked all participants for sharing their insights and welcomed their continuous inputs to the sub-working group's draft report. He proposed two actions for the next step: 1) setting up a portal of case studies on both international and Chinese examples (i.e., sponge cities); 2) identifying 2-3 specific themes (i.e., sustainable agriculture, bridging COP15/COP26) for future collaboration.