CCICED Members and Partners Contributions

中国环境与发展国际合作委员会委员及合作伙伴的建议

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The challenges arising in 2020 have prompted new ways of working together while remaining apart. The cancellation of the 2020 CCICED Annual General Meeting and face-to-face meetings of the Special Policy Studies necessitated the use of new ways for CCICED members, special advisors, and partners to virtually share their advice and perspectives. In the late spring of 2020, CCICED members were invited to share such perspectives by participating in several online meetings, by way of written contributions, or both.

This note highlights excerpts from the contributions of CCICED members and special advisors in identifying key points and highlighting possible directions of the 2020 <u>Policy Recommendations</u>, <u>Issues Paper</u>, ongoing work of the <u>10 CCICED Special Policy Studies</u> as well as identifying important issues in <u>CCICED's work ahead</u>.

2020年催生了既能保持距离又可以一起工作的新方式。由于2020年中国环境与发展国际合作委员会(国合会)年会和专题政策研究的面对面会议被取消,国合会委员、特别顾问和合作伙伴通过线上的方式分享了他们的建议和观点。2020年春末,我们邀请国合会委员通过参加系列在线会议和/或以书面形式分享见解。

本报告重点摘录了国合会委员和特别顾问在<u>2020年政策建议、关注问题报告</u>、目前<u>十个国合会专题政策研究工作</u>以及国合会<u>未来工作</u>等方面识别出的重要和潜在的方向。

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Green Stimulus and Recovery

绿色刺激和复苏



STEPHEN HEINTZ, President and CEO, Rockefeller Brothers Fund: With the global economy profoundly disrupted by the COVID-19 pandemic, the world's governments now stand before an unprecedented fork in the road. Will they double down on the unsustainable models of growth that have characterized the past? Or will they invest heavily in green development and the clean energy infrastructure that will enable us to withstand the climate-related shocks of the future? The challenge now is not to rebuild the global economy as it was but rather to reimagine it as it can be and must be.

洛克菲勒兄弟基金会总裁汉兹:新冠肺炎大流行严重破坏了全球经济,因此世界各国政府现在站在了前所未见的分岔口上。他们是否会在塑造过去的不可持续的模式上继续加大赌注?还是会在绿色发展和清洁能源基础设施方面投入大量资金,以使我们能够承受未来与气候相关的冲击?现在的挑战是:不要按照既有的模式重建全球经济,而是要根据所有的可能和要求重新设计它。



VIDAR HELGESEN, Norwegian Special Representative for Oceans: In the short term it might be tempting to kickstart economic recovery by firing up classic, fossil-fueled engines of the economy. This would exacerbate climate and biodiversity threats, and would also be economically risky. Firstly, stepping up fossil investments will increase climate risks to the economy. Secondly, the European Union's (EU's) plan to launch a carbon border adjustment tax will make carbon-intensive export less competitive. Thirdly, the pandemic has exposed serious risks

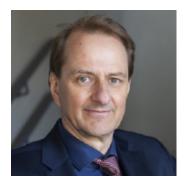
for the EU and the U.S. in their dependency on global supply chains, something which is likely to prompt much stronger investment in a circular economy. China can take the lead in designing long-term plans for an ecologically sustainable recovery, including a strong focus on greening of global supply chains and value chains.

可持续海洋经济高级别小组挪威特使赫尔格森: 从短期来看,通过经典的由化石燃料驱动的经济引擎来启动经济复苏可能很诱人。但这将加剧气候和生物多样性危机,并且具有经济风险。首先,增加化石能源投资将加剧气候对经济系统的风险。其次,欧盟(EU)推出碳边界调整税的计划将降低碳密集型出口的竞争力。第三,流行病给欧盟和美国带来了严重的风险,因为它们依赖全球供应链,这次危机很可能促使对循环经济的更大投资。中国可以引领对生态上可持续的复苏,包括绿色全球供应链和价值链的长期规划。



HANS MOMMAAS, Director General, Netherlands
Environmental Assessment Agency (PBL): As we prepare
the largest economic stimulus packages since the adoption
of the SDGs and the Paris Agreement on Climate Change, we
must avoid lock-ins to the old patterns, and accelerate the
implementation of these agendas to avert future crises. We must
apply the right priorities and criteria to make economic recovery
work through low carbon infrastructure, green jobs, a circular
economy, and, ultimately, resilient livelihoods.

荷兰环境评估委员会主席莫马斯:在我们制定自SDGs和《巴黎气候变化协定》通过以来最大的经济刺激方案时,我们必须避免受旧模式的束缚,并加速这些议程的执行情况可以避免未来的危机。我们必须运用正确的优先事项和标准,以通过低碳基础设施,绿色工作,循环经济以及最终恢复生计的方式使经济复苏发挥作用。



DIRK MESSNER, President, German Environment Agency: Green Stimulus and Recovery: We need a sustainably oriented recovery program which should be green and climate-neutral; that enhances human well-being; that is inclusive and resilient-oriented; that takes digitalization into account; and that is aligned with the 2030 agenda and the Sustainable Development Goals. The global pandemic indicates the underlying causes of vulnerabilities as well as externalities that private markets alone cannot solve. We need better global

biodiversity conservation to reduce the risks of future pandemic diseases.

德国联邦环保署署长迪克•梅森纳:我们需要以可持续发展为导向的复苏计划,该计划应该是绿色且气候中性的,能够增进人类福祉,具有包容性和适应性,考虑数据化,符合2030年议程和可持续发展目标。全球流行病暴露出脆弱性的根本原因以及私营市场不可能独自解决的外部性问题。我们需要更好地保护全球生物多样性,以减少未来大流行性疾病的风险。



DOMINIC WAUGHRAY, Managing Director, World Economic Forum Centre for Global Public Goods:

With the post-COVID-19 stimulus package, there is an opportunity to be bold and have a significant impact on the future of an ecological civilization in China and globally, laying the groundwork for carbon neutrality in 2060. Of particular importance are investments in technologies and infrastructure which will form the backbone of the green economy, including new energy infrastructure technologies such as battery storage,

infrastructure to deploy hydrogen and other greener fuels at scale, an acceleration of the electrification of the mobility sector, the decarbonization of embedded emissions in products and the repurposing of subsidies in the food sector.

China's stimulus investment must be designed for maximum sustainable effect. Long-term, sustainable growth requires China opening further to trade and investment, and resisting protectionist pressures as a response to COVID-19. The stimulus program should crowdin rather than crowd-out, innovation and investment from abroad. Through welcoming foreign investment across sectors – and encouraging Chinese investment abroad – Chinese firms will become globally competitive and drive higher-quality growth. Government investment and procurement should catalyze constructive competition among domestic and international firms while ensuring frameworks are in place to maximize economic and social benefits.

世界经济论坛执行董事、全球可持续发展中心负责人沃格雷:通过疫后刺激计划,有机会大胆地对中国乃至全球生态文明的未来产生重大影响,为2060年的碳中和奠定基础。尤其重要的是对将构成绿色经济支柱的技术和基础设施的投资,包括新能源基础设施技术,例如储能、大规模部署氢和其他绿色燃料的基础设施、加速运输部门电气化,以及产品隐含碳的脱碳化和重新部署食品行业补贴。

中国的刺激性投资必须旨在最大程度地实现可持续发展。长期来看,可持续的增长要求中国进一步开放贸易和投资,并抵制贸易保护主义的压力,以应对新冠疫情。刺激计划应该从国外引进而不是排挤国外的创新和投资。通过欢迎跨行业的外国投资 - 并鼓励中国在国外的投资 - 中国公司将变得具有全球竞争力,并推动更高质量的增长。政府投资和采购应促进国内和国际公司之间的建设性竞争,同时确保建立框架以实现最大的经济和社会效益。



PETER BAKKER, President and CEO, World Business Council for Sustainable Development: Now is a pivotal moment for business to demonstrate leadership toward society. We need to ensure that we map a path to a new normal, by pressing hard to support a more sustainable direction which improves risk awareness and resilience in our supply chains, operations, and business models. It is equally important that we continue to work on sustainable development: we need to strengthen the links between sustainability, biodiversity

loss, and climate change. This means we must move away from coal as a main source of energy; we must electrify transport at an accelerated pace; we must stick to the new ways of communications that stop unnecessary travel; and we need to move food production to more regenerative practices and stop the destruction of forests.

世界可持续发展工商理事会会长贝德凯:现在是企业展示对社会的领导力的关键时刻。我们需要通过努力支持更可持续的发展方向,从而提高我们供应链、运营和商业模式中的风险意识和应变能力,从而确保我们找到一条通向新常态的道路。同样重要的是,我们应继续致力于可持续发展:我们需要加强可持续性、生物多样性丧失与气候变化之间的联系。这意味着我们必须摒弃煤炭作为主要能源;我们必须加快交通运输的电气化;我们必须坚持新的沟通模式以停止不必要的旅行;我们需要在粮食生产中采取更多的可再生做法,并停止对森林的破坏。



INGER ANDERSEN, Executive Director, United Nations Environment Programme (UNEP): The positive medium- to long-term effects of a low-carbon and Sustainable Development Goal (SDG) – aligned economic transition - including increased resilience to environmental and climate change risks and shocks - reinforce the importance of an environmentally sustainable stimulus framing a post-COVID 19 future to "Build Back Better." China will be central to reimagining sustainable cities post-COVID 19 and can build

on the existing momentum in designing and planning sustainable urban infrastructure that ensures human well-being in high densities and peri-urban areas (an example is the smart municipal solid waste management infrastructure for a zero-waste city). This effort could also include investing further in sustainable digital infrastructures which would reduce the need for physical transport and office infrastructure while allowing for greater resilience during crisis.

联合国环境署执行主任、联合国副秘书长安德森: 低碳和可持续发展目标 (SDG) 的中长期积极影响——统一的经济过渡,包括增强了对环境和气候变化 风险及冲击的适应力,强化了在疫后构建环境可持续刺激框架以"更好的重建"的重要性。中国将成为重塑疫后的可持续城市的中心。战略性的绿色城市规划可以基于确保高密度和近郊地区的人类福祉的可持续城市基础设施设计和规划的现有势头(例如: 零废物城市的智能城市固体废物管理基础设施)。 这项工作还可以包括进一步投资于可持续的数字化基础设施,这将减少对物理运输和办公基础设施的需求,同时在危机期间具有更大的韧性。



KATE HAMPTON, CEO, Children's Investment Fund Foundation: China could make a substantial contribution to a green global recovery from COVID19, not just through the 14th Five Year Plan (FYP) but also through international engagement. The China-EU-led International Platform for Sustainable Finance (IPSF) is an exciting and high potential new venue for advancing ecological civilization. The EU and China should urgently and publicly lead the way in developing a roadmap toward harmonization of green finance taxonomies and push

bilateral and international financial institutions toward greater Paris compatibility. China could work with Italy and the UK on this topic as they are actively facilitating discussions on the green finance and green recovery topic in the build up to a delayed COP26, including via the Italian G20 presidency and UK G7 presidency.

英国儿童投资基金会首席执行官韩佩东:中国可以为疫后全球绿色复苏做出巨大贡献,这不仅可以通过"十四五"规划实现,还需要国际合作。由中欧牵头的国际可持续金融平台(IPSF)是推动生态文明发展的鼓舞人心且潜力巨大的新平台。欧盟和中国应抓紧并公开引领制定通向统一绿色金融分类方法的路线图,并推动双边和国际金融机构进一步提高对《巴黎协定》的兼容程度。鉴于新冠疫情,债务可持续性相关的其它问题困扰着许多国家,因此至关重要的是,我们要避免煤炭投资导致资产搁浅,这会增加政府债务。中国可以与意大利和英国就此课题进行合作,因为它们正积极推动有关绿色金融和绿色复苏主题的讨论,以此为延迟召开的第26届联合国气候变化大会(COP26)做准备,这还包括通过意大利作为20国集团(G20)主席国和英国作为7国集团(G7)主席国的方式。



GALIT COHEN Senior Deputy Director General, Environmental Protection Ministry, Israel: COVID-19 presents an opportunity to promote resilient infrastructure that is aligned with long-term environmental goals of clean energy independence, food security, and the implementation of naturebased solutions.

以色列环境部可持续发展高级副司长科恩:新冠疫情提供了一个机会,以促进 具有韧性的基础设施,这些基础设施应符合清洁能源独立、食品安全和实施基 于自然的解决方案的长期环境目标。



HANS FREIDERICH, Senior Advisor, BambooLogic Europe BV; Ambassador of the World Bamboo

Organization: The economic response to COVID-19 can contribute to the transition to a future-oriented, climate-neutral economy. Any recovery and reconstruction package should kickstart the economy, improve its resilience and create jobs while at the same time provide long-term clarity to investors. This means we should recover better by investing in the decarbonization of all economic sectors and the transition to a

circular economy, including support to adaptation and resilience, universal access to energy, sustainable water management, and sustainable food systems.

欧洲BambooLogic公司高级顾问、世界竹组织大使费翰思:应对新冠疫情的经济措施可以促进以未来为导向的向气候中性的经济转型。任何恢复和重建计划都应启动经济、提高经济韧性、创造就业机会,同时为投资者提供长期的清晰信号。这意味着我们应该通过投资于所有经济部门的脱碳和向循环经济的转型来更好地复苏,包括支持适应和复原力、普遍获得能源、可持续水管理和可持续粮食系统。



NAOKO ISHII, CEO, Global Environment Facility: China can demonstrate that a green economic recovery is possible at the same time as a quick recovery. There is an opportunity for an economic system transformation, including scaling up clean energy and transportation, smart infrastructure, and workforce retraining toward green jobs. Public procurement of large fleets of electric vehicles could cover all governmental uses. Support to the aviation industry should be conditional on the acceptance of minimum emission standards and other measures to reduce the

carbon footprint of this sector and advance the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

前全球环境基金首席执行官石井菜穗子:中国可以证明,经济的绿色复苏和快速复苏可以同时实现。经济系统转型的机会很大,包括扩大清洁能源和交通运输、智能基础设施以及针对绿色就业进行劳动力再培训。大型电动车队的公共采购可以涵盖政府部门的所有需求。对航空业的支持应以接受最低排放标准和其他措施为条件,以减少该部门的碳足迹并推进国际航空碳抵消计划(CORSIA)。



RODOLFO LACY, Director, OECD Environment

Directorate: Zero pollution, zero deforestation, and zero waste are all important targets. At the same time, there is a need to implement new metrics that align with China's Ecological Civilization, taking into account the life cycle of goods and services in the whole value chain. The pandemic reminds us that everything is connected: we need to solve key environmental challenges in a life-cycle approach. One of the main lessons of the 2008 global financial crisis is to focus on externalities; life-cycle metrics can help identify environmental externalities.

经合组织环境局局长莱西: 零污染、零森林砍伐和零废弃都是重要目标。 同时,有必要采取与中国生态文明目标相一致的新指标,并考虑整个价值链中商品和服务的生命周期。新冠肺炎大流行提醒我们,世间万物紧密联系: 我们需要以生命周期的方式解决关键的环境挑战。2008年全球金融危机的主要教训之一是关注外部性。 生命周期指标可以帮助识别环境外部性。

Policy Coherence 政策一致性



HANS MOMMAAS: It is imperative to improve policy coherence in order to forward a systematic, holistic approach. Particularly in times of crisis, it is good to know where you are, where you are coming from, and where you are headed in order to prevent lock-ins and maximize opportunities in economic recovery strategies. Two dimensions are involved: coherence between short-term and long-term strategies, and coherence between environmental policies and large-scale spatial planning.

莫马斯:必须提高政策的一致性以便提出系统的、整体的方案。尤其是在危机时刻,我们最好知道自己的位置、来自何处以及前往何方,以防止锁定并最大限度地利用经济复苏策略。这涉及两个方面:短期和长期策略之间的一致性,以及环境政策和大规模空间规划之间的一致性。



KATE HAMPTON: There are important synergies among land-use change, food systems, and animal husbandry which together can result in elevated risks of zoonotic disease. There is a real opportunity in light of COVID-19 to create an international forum for thoughtful, evidence-based, and collaborative exchanges around prevention. There is an opportunity to put China's big data knowledge and expertise to work to examine the

intersection between ecosystem loss, biodiversity, agricultural systems, food systems, and zoonotic disease, with a focus on both preparedness and prevention.

韩佩东:土地使用变化、粮食系统和畜牧业之间具有重要的协同作用,而这些协同作用可导致人畜共患疾病的风险增加。鉴于新冠肺炎疫情,我们看到了一个真正的机会来建立一个国际论坛,以进行有关预防的周密、基于证据的合作交流。有机会利用中国的大数据知识和专长,研究生态系统丧失、生物多样性、农业系统、粮食系统和人畜共患病之间的交叉问题,并聚焦准备和预防。



GALIT COHEN: The COVID crisis underscores the interdependence of human health and environmental health, the physical and psychological need for high-quality, green spaces, and the effects of air pollution as a multiplier of human heath risks. Scientific research suggests that environmental hazards – climate change, chemical pollution and the loss of biodiversity – are closely associated with higher risks of human disease.

科恩:新冠肺炎危机强调了人类健康与环境健康之间的相互依存,对高质量绿色空间的生理和心理需求,空气污染的影响是人类健康风险的成倍增长。科学研究表明,环境危害——气候变化、化学污染和生物多样性丧失,与较高风险的人类疾病密切相关。



MANISH BAPNA: Executive Vice President and Managing Director, World Resources Institute: Given the links between the loss of nature and zoonotic diseases, and the fact that soft commodities are the dominant driver of deforestation in tropical forests around the world (and that China is the leading importer of most soft commodities—soy, beef, timber, and palm oil) effort should be made to green supply chains, especially in light of the UN Convention of Biodiversity (CBD) COP 15 Summit in 2021.

世界资源研究所全球执行副主席兼常务董事巴布纳:鉴于自然灾害损失与人畜共患病之间的联系,以及软性商品到目前是世界上许多地区森林砍伐森林的主要驱动力,考虑到中国是主要的软性商品(包括大豆,牛肉,木材,棕榈油)进口国之一,应鼓励采取措施加强供应链的绿色化,特别是考虑到2021年联合国《生物多样性公约》COP 15峰会。



GWEN RUTA, Executive Vice President, Environmental Defense Fund (EDF): The economic recovery provides an opportunity to strengthen both conventional air pollution controls and carbon emission goals for 2030. Air pollution causes or worsens medical conditions like heart disease, diabetes, and asthma. China can build upon creating the world's largest tradable emission system in the power sector to take the next logical step in setting a carbon emissions cap for the power sector accompanied by emission caps in other selective sectors

and regions, towards the creation of an absolute national greenhouse gas emissions cap. Action should also set emission -reduction targets for methane emissions, which are largely driving short-term warming effects. As COVID-19 has created challenges for onsite emission inspections, the rapid increase in offsite enforcement tools, micro-sensors, satellites, mobile monitoring, and artificial intelligence can help.

美国环保协会执行副总裁茹冠洁: 经济复苏为加强传统的空气污染控制和实现 2030年的碳排放目标提供了机会。空气污染会导致或加剧心脏病、糖尿病和哮喘等医疗问题。中国可以在建立全球最大的电力部门排放交易体系的基础上,采取进一步措施,即设定电力部门的碳排放上限以及其他部门和地区的排放总量,以建立一个绝对的国家温室气体排放总量控制目标。还应为甲烷排放设定减排目标,甲烷在很大程度上推动了短期升温效应。由于新冠疫情为现场排放核查带来了挑战,因此场外执行工具,微传感器、卫星、移动监控、人工智能的迅速发展可以提供帮助。



MANISH BAPNA: We are living in a time of de-globalization, although this does not necessarily mean less international cooperation. It is also a time when risk, resilience and our connection with nature is much more visible than it has been before. There is an opportunity to not only to see how the world will respond to fast-moving crises like the pandemic, but also to slower-moving – but arguably even more far-reaching – crises like the loss of biodiversity and climate change.

巴布纳:我们生活的时代越来越去全球化,而这并不一定意味着减少国际合作。在这个时代,风险、韧性和我们与自然的联系比以往任何时候都更加重要。我们不仅有机会看到世界将如何应对大流行等快速发展的危机,而且有机会看到世界如何应对缓慢发展但可以说影响更深远的自然危机,例如生物多样性丧失和气候变化。

China's 14th Five-Year Plan

中国"十四五"规划



ACHIM STEINER, Administrator, United Nations
Development Programme (UNDP): The 14th FYP presents
a unique opportunity to align social sector development with
high-quality and sustainable development. Among the priorities
is the promotion of inclusiveness, equity and "leaving no one
behind" within the FYP. The focus can include: improving
overall healthcare service efficiency and effectiveness; regulating
and subsidizing waste management; building an effective
mechanism for continued poverty reduction and addressing

inequality, including environmental injustice; advancing education that is responsive to gender and the needs of vulnerable groups; and deepening institutional reform to reduce duplication and improve coordination. All of this also helps in responding to pandemics like COVID-19. The 14th FYP should integrate the SDG by embedding environmental SDG monitoring and evaluation indicators into the national development priorities aligned with the 2030 Agenda.

联合国开发计划署署长施泰纳: "十四五"规划为社会部门高质量和可持续发展提供了独特的机会。优先重点之一是在五年规划内确保包容、公平和"不让任何人落后"。重点可以包括提高整体医疗保健服务的效率和有效性,建立有效的机制来继续减少贫困,解决包括环境不公在内的不平等现象; (推进针对性别和弱势群体需求的教育;深化体制改革以减少重复并改善协调。所有这些措施还有助于应对COVID19等大流行病。 "十四五"规划应通过将环境可持续发展目标的监测和评估指标纳入符合2030年议程的国家优先发展领域以整合可持续发展目标(SDG)。



ANDREW STEER, President and CEO, World

Resources Institute: China's 14th-Five Year Development Period will be extremely important given its timing in China's history: China will achieve a moderately prosperous society by 2021 at the 100th anniversary of the Chinese Communist Party. Therefore, the 14th-FYP is a bridge between China's first Centennial goal and second Centennial goal, providing a perfect window of opportunity for China to shape its development agenda toward high-quality and green development. Priority

areas include enhancing green development through a cohesive and consistent approach; greening the Belt and Road Initiative (BRI) by adding green capacity building in BRI host countries; and, boosting climate action toward low-carbon and resilient development. China's key economic regions are capable of and should be responsible for leading China's

deep decarbonization pathways: Beijing-Tianjin-Hebei Region, Yangtze River Delta Region, and Greater Bay Area should hit peak emissions as soon as possible. In the 14th FYP, China should set a target for greenhouse gas (GHG) emissions to enter "a period of stability," with CO2 emissions start to decline by the end of 14th FYP and non-CO2 GHG emissions decline as early in the decade as possible.

世界资源研究所总裁兼首席执行官斯蒂尔:鉴于其在中国历史上所处的位置,中国的"十四五"发展时期将极为重要:在中国共产党成立100周年、即2021年,中国将实现全面小康。因此,"十四五"是中国第一个百年目标与第二个百年目标之间的桥梁,为中国制定其朝着高质量和绿色发展的发展议程提供了绝佳的机会之窗。优先领域包括通过具有凝聚力且一致的措施促进绿色发展;通过在"一带一路"国家提升绿色能力建设使"一带一路"倡议绿色化;促进气候行动,以实现低碳和可持续发展。中国的主要经济区有能力并应负责领导中国深层的脱碳途径:北京一天津一河北地区,长三角地区和大湾区应尽快达到排放峰值。在"十四五"规划中,中国应为温室气体排放设定一个进入"稳定期"的目标,即到"十四五"末二氧化碳排放量开始下降,而非二氧化碳温室气体排放量将在未来十年尽早达峰。



MARCO LAMBERTINI, Director General, WWF-

International: To advance Ecological Civilization construction in the 14th FYP, including by increasing binding targets on conservation and environmental protection, such as wetland areas, land and marine protected areas; enhancing governance innovations such as river chief and lake chief and incorporate natural resources assets and biodiversity-related elements into government performance review.

世界自然基金会总干事兰博蒂尼:在"十四五"期间推进生态文明建设,包括增加环境保护的约束性指标,例如湿地、陆地和海洋保护区;加强"河长"和"湖长"等治理创新,并将自然资源资产和生物多样性相关要素纳入政府绩效评估。



MANISH BAPNA, Executive Vice President and Managing Director, World Resources Institute: The 14th FYP is a crucial period of opportunity for ecological civilization and BRI development. China should strictly adhere to the red line of ecological conservation, both at home and abroad, and take strong measures to participate in and promote green development of global value chains.

巴布纳: "十四五"是生态文明和"一带一路"倡议发展的关键机遇期。中国需要在国内外继续严格遵守环境红线的要求,并采取有力措施参与和促进全球价值链的绿色发展。



NURITDIN INAMOV: Green consumption and production are essential parts of the ecological civilization and should be incorporated as a strategic objective in the 14th FYP.

俄罗斯自然资源与环境部高级代表、国际合作司司长伊纳莫夫:绿色消费和生产是生态文明的重要组成部分,应将其纳入"十四五"规划战略目标。

Climate Mitigation

减缓气候变化



LI YONG, Director General, UNIDO: Climate change is the most critical environmental threat faced by mankind. Beyond the increased use of renewables for electricity generation, the decarbonization of industry is a key option to reduce the emission of CO2. Industrial y manufacturing processes are responsible for more than one quarter of total CO2 emissions. Prioritizing the decarbonization of industry should focus initially on those key industries with the highest CO2 reduction potential.

联合国工发组织总干事李勇:气候变化是人类面临的最关键的环境威胁。除了增加可再生能源用于发电之外,工业脱碳是减少二氧化碳排放的重要选择。工业生产过程占二氧化碳排放总量的四分之一以上。在选择脱碳行业时应将重点放在那些具有最大二氧化碳减排潜力的关键行业上。



ACHIM STEINER: In addition to fostering China's circular economy by promoting sustainable consumption and production, strengthened commitments are needed for the United Nations Framework Convention on Climate Change (UNFCCC), the UN Persistent Organic Pollutants, and the Kigali Amendment to the Montreal Protocol. Opportunities exist in promoting the productive use of CO2 by supporting and applying capture of CO2 from key carbon-intensive sectors, including power generation, construction materials,

petrochemicals and the metallurgical industry, instead of passively considering it as a GHG.

施泰纳:除了通过促进可持续的消费和生产来促进中国的循环经济之外,需要加强在《联合国气候变化框架公约(UNFCCC)》,《联合国持久性有机污染物公约》和《蒙特利尔议定书》的《基加利修正案》下的承诺。我们在加强CO2胜场话利用方面看到了机遇,可以通过在关键碳密集型行业(包括发电、建筑材料、石油化工和冶金行业)支持和应用二氧化碳捕集技术而实现,而不是被动地将其仅仅视为温室气体。



KATE HAMPTON: Coal assets are being stranded around the world at a rapid rate. Approximately 70% of China's coal fleet already costs more to operate than new wind and photovoltaic systems, yet about 100 gigawatts (GW) of new coal is under construction. Both the financial and environmental risks of new coal have been exacerbated by the COVID crisis because of the risk of overcapacity. There is a worry that China will be left with non-performing loans, as the rate of return on coal assets declines very rapidly.

韩佩东: 煤炭资产正在世界范围内迅速成为搁浅资产。与新的风能和光伏系统相比,中国约70%的煤炭设施运营成本高昂,但目前仍有约100吉瓦(GW)的新的煤电设施正在建造当中。由于产能过剩的风险,新冠肺炎疫情加剧了新建煤电的财务和环境风险。令人担忧的是,随着煤炭资产收益率的迅速下降,中国将面临不良贷款的问题。



ANDREW STEER: Peaking of emissions as soon as possible in key economic regions and sectors is critical. Wind and solar PV power will reach grid parity in one to two years, presenting a golden opportunity for China to decarbonize its power sector. China should focus on reducing the soft costs (e.g., financing, permitting, and fees) for renewable energy, implementing green power dispatch reform, and setting and reinforcing ambitious energy consumption targets for non-hydro renewables at the provincial level. While coal power plants operate at a

low utilization rate of around 50%, China has added 59.1 GW of new capacity for coal power plants in the last two years, more than the total coal installed capacity in Germany. Additionally, there are 205 GW of new coal power plants in the development pipeline. China should ban new investment in coal power plants during the 14th FYP and continue to close down inefficient coal power plants.

China should reduce non-CO2 GHG emissions with no or low costs. Such measures include taking early action to implement obligations under the Kigali Amendment to reduce hydrofluorocarbons (HFCs), requiring the utilization or flaring of all coal-bed methane emissions beyond 9% concentration, mandating N2O emissions reduction measures for all adipic acid and major nitric acid manufacturers, setting and implementing a fertilizer reduction target, requiring methane recovery systems in anaerobic wastewater treatment plants, and adopting ambitious waste recycling targets.

斯蒂尔:在关键的经济区域和部门尽快达到排放峰值至关重要。风能和太阳能光伏发电将在一到两年内达到电网平价,这为中国脱碳其电力部门提供了千载难逢的机会。中国应集中精力降低可再生能源的软成本(例如融资、许可和收费),实施绿色电力调度改革,并在省一级制定和加强雄心勃勃的非水可再生

能源消费目标。尽管燃煤电厂的利用率仅为50%左右,但中国过去两年的燃煤电厂新增装机容量为59.1吉瓦,超过了德国的燃煤总装机容量。此外,还有205吉瓦的燃煤电厂建设已提上日程。"十四五"期间,中国应禁止对燃煤电厂的新投资,并继续关闭效率低下的燃煤电厂。

中国应以零成本或低成本减少非二氧化碳的温室气体排放。这些措施包括:采取早期行动以执行《基加利修正案》规定的减少氢氟碳化合物的义务,要求利用或燃烧所有浓度超过9%的煤层甲烷排放物;对所有己二酸和主要硝酸生产商强制执行减少N20排放的措施,实施减少肥料的目标,要求在厌氧废水处理厂中使用甲烷回收系统,并制定有力度的废弃物回收目标。



VIDAR HELGESEN: Important steps include: creating a roadmap for phasing out the production and use of coal by mid-century; submitting a strengthened Nationally Determined Contribution (NDC) to the Paris Agreement with an absolute target for emissions—along with sector-specific targets and implementation plans; setting an ambitious target for the share of non-fossil energy consumption by 2025; phasing out fossil fuel subsidies; preparing guidelines for public procurement in order to promote renewable energy and energy efficiency, in line with the recently published draft energy law.

赫尔格森:制定本世纪中叶逐步淘汰煤炭生产和使用的路线图。向《巴黎协定》提交加强后的国家自主贡献,包括绝对量减排目标-以及针对具体部门的目标和实施计划。设定到2025年非化石能源消费占比的目标。逐步取消化石燃料补贴。根据最近发布的《能源法(草案)》,为公共采购准备指南,以促进可再生能源发展和提高能源效率。



INGER ANDERSEN: In the 14th Five Year Period, it is important to further reduce greenhouse gas emissions through structural transformation and to enhance climate resilience. China needs to mobilize climate action in the provincial and city-level governments, large-size businesses and companies, and at the early stages of infrastructure and urban planning. This will also support clean air quality and further strengthening of China's clean air policies, regulations, incentives and links to the environment and health. China is very committed to clean

air and the plan will contribute to its regional and global commitments and to the concept of Blue sky which was the focus of World Environment Day in 2019.

Given the fast- economic development China is undergoing, including the construction of infrastructure and expansion of urban areas, both adaptation and mitigation need to be integrated into the country's climate change agenda.

安德森: 在"十四五"期间,通过结构转型进一步减少温室气体排放并增强气候适应能力非常重要。中国需要在省市级政府、大型企业和公司以及基础设施和城市规划的早期阶段动员气候行动。这也将支持清洁空气质量目标,并进一步强化中国的清洁空气政策、法规、激励措施以及与环境和健康的联系。中国致力于实现清洁空气目标,该计划将有助于其实现对区域和全球的承诺,并为"蓝天"的概念做出贡献,这也是2019年世界环境日的焦点。

鉴于中国正在经历快速的经济发展,包括基础设施建设和城市区域扩张,因此适应和减缓气候变化都需要纳入中国的气候变化议程。



MARCO LAMBERTINI: It will be important during the 14th FYP to develop wind and solar power in a proactive and orderly manner, and steadily accelerate the upgrade of energy mix. Advance the implementation and improvement of renewable energy portfolio standard. Promote to principle of peaking national coal consumption. Expand efforts of peaking carbon emissions in provinces, cities, and city clusters, to further advance various low carbon pilots and the demonstration of near-zero carbon emission actions. Establish thematic and

sectoral action plans on climate change adaptation; at the same time establish and revise, as appropriate, relevant technical standards. Establish and improve policies and standards on climate financing, promote the application of innovative green finance tools, and promote international cooperation on financing for climate actions. Continue to engage in global climate governance and play a role of torchbearer. Further strengthen the role of South-South Climate Cooperation Fund, and proactively collaborate with relevant international and non-governmental organizations.

兰博蒂尼:在"十四五"期间以积极有序的方式发展风能和太阳能,并稳步加速能源结构的升级,这一点很重要。推进可再生能源组合标准的实施和完善。促进达到全国煤炭消费峰值。扩大省、市和城市群碳排放达峰的努力,以进一步推进各种低碳试点和近零碳排放行动的示范。制定关于适应气候变化的专题和部门行动计划,并制定和修订相关的技术标准。建立和完善有关气候融资的政策和标准,促进创新型绿色金融工具的应用,并促进有关气候行动融资的国际合作。继续参与全球气候治理,并扮演引领者的角色。进一步加强气候变化南南合作基金的作用,并与相关国际和非政府组织积极合作。



DOMINIC WAGHRAY: Hard-to-abate sectors—including heavy industry, such as chemicals, cement, and steel; transport, such as long-distance vehicle transport, aviation, and shipping—are responsible for 30% of total global emissions. These sectors have proven difficult to decarbonize and consequently will likely account for a larger share of emissions in the future. The stimulus package provides an opportunity to invest in decarbonizing these industries by putting in place the basic infrastructure to grow low-carbon, vital industry.

Decarbonization of heavy industry should be viewed from a systemic perspective, as the creation and use of alternative fuels and energy will require national-level infrastructure investment.

沃格雷:包括一些重工业(如化学工业、水泥和钢铁),和交通行业(如长途汽车运输,航空和航运)在内的减排难度大的行业占全球排放总量的30%。事实证明,这些部门难以脱碳,因此将来可能会占更大份额的排放。复苏计划为投资这些行业的脱碳提供了机会,从而为发展低碳和重要行业建立基础设施。重工业的脱碳应从系统的角度来看,替代燃料和能源的创新和应用需要国家层面的基础设施投资。



AJAY MATHUR, Director General, TERI: China is a world leader in renewable energy, electric mobility, and other areas. It will be important to focus on new, clean energy innovations such as hydrogen, carbon-free steam, high-efficiency building heating and cooling, and affordable housing in ways such that people are able and willing to pay. Building consumer demand for low-carbon technologies is crucial.

印度能源与资源研究所所长马瑟尔:中国在可再生能源、电动汽车和其他领域处于世界领先地位。重要的是要以人们有能力并愿意支付的方式、集中精力进行新清洁能源创新,例如氢、无碳蒸汽、高效建筑供暖和制冷以及负担得起的住房。建立消费者对低碳技术的需求至关重要。



MICHAEL McELROY, Gilbert Butler Professor of Environmental Studies, Harvard University: China's commitment to a national carbon ETS has been laudable, but implementation challenges have limited its planned coverage to large facilities in key emitting sectors. The investments in China's ETS could be fully realized, while attaining the promise of economy-wide carbon pricing, by coupling it to carbon taxation implemented in all non-ETS sectors, with tax rates harmonized to tradeable allowance prices. Upstream carbon

taxation on inputs to non-ETS sectors also offers strong implementation advantages over any proposed economy-wide extension of the ETS, which is most feasible in sectors with small numbers of large point sources (e.g., electricity generation and iron & steel production). Analysis indicates that such a hybrid carbon pricing policy will achieve the same CO2 goals with lower carbon prices, distribute the burden from ETS sectors alone to all relevant economic actors, and significantly reduce effects on GDP growth compared to the ETS system as currently planned.

To the extent carbon capture, use, and storage (CCUS) might become more affordable over time, applications integrated with fuel gasification may offer the greatest promise because of the concentrated CO2 waste streams that result. The opportunities importantly extend beyond the familiar prospect of carbon-neutral coal- and gas-fired power generation. Potentially as important, introduction of increasing shares of biomass (such as crop wastes) into the gasification fuel mix, leveraging nature's own carbon-capture mechanism of photosynthesis, can transform the process into a carbon-negative power source of the sort needed to meet the 1.5-2°C target of the Paris Agreement.

哈佛大学环境科学教授麦克尔罗伊:中国建立国家碳排放交易体系的承诺值得称赞,但实施方面的挑战将其计划覆盖范围限制在主要排放部门的大型设施上。通过将其与所有非ETS部门实施的碳税结合,税率与可交易的配额价格保持一致,可以完全实现中国对ETS期待及实现全行业碳排放定价。对非ETS部门的的上游征收碳税也比任何拟议全行业覆盖ETS具有更大的实施优势,覆盖全行业的ETS在具有少量大型点源(例如发电和钢铁生产)的部门中最可行。分析表明,与目前计划的ETS系统相比,这种混合碳定价政策将以较低的碳价格实现相同的CO2减排目标,能将ETS部门的负担分配给所有相关经济主体,并显着降低对GDP增长的影响。

未来,碳捕集、利用和封存(CCUS)可能会更具成本可行性,与燃料气化相结合的应用可能会带来最大的希望,因为会产生集中的CO2废气流。这一重要的机遇超出了我们熟悉的燃煤和天然气发电碳中和前景。更重要的是,利用自然界自身的光合作用碳捕获机制,将越来越多的生物质(例如农作物废物)份额引入气化燃料混合物中,可以将这一过程转变成负碳的电力来源,以实现《巴黎协定》规定1.5-2°C目标。



HANS FREIDERICH: One of the critical areas of fossil fuel use is aviation. In the wake of the COVID-19 crisis and the revision of aviation for the future, China must lead research and development into alternatives for traditional aviation fuel, and encourage the global airline industry to become carbon neutral by 2050 at the latest.

费翰思: 化石燃料使用的关键领域之一是航空。在新冠肺炎疫情之后,以及在未来的航空业改革中,中国必须引领研究和开发传统航空燃料的替代品,并鼓励全球航空业最迟在2050年实现碳中和。

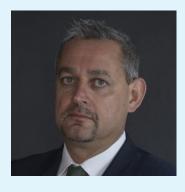
Hydrogen 氢能



ACHIM STEINER: Although hydrogen is envisaged to be classified by the State Energy Administration as energy, concerted national policies are needed to develop a hydrogen economy. Building on the Fuel Cell Vehicle (FCV) Roadmap, China needs to remove inter-agency coordination barriers to create an enabling environment for nurturing a comprehensive supply chain for a sustainable hydrogen economy at the national level; support a wider application of renewable sources for

hydrogen production; stimulate renewable energy for hydrogen production coupling with wind, solar, and hydro; plan for wider deployment of FCVs in transport; diversify hydrogen and fuel-cell applications beyond transport, including combined heat and power, backup power facility; and showcase a scalable hydrogen economy replicable, as appropriate, through South-South Cooperation.

施泰纳:尽管国家能源局计划将氢气归类为能源,但是需要有一致的国家政策来发展氢经济。中国需要以燃料电池汽车(FCV)路线图为基础,消除机构间的协调障碍,以创造有利的环境,以在国家一级培育全面的供应链,实现可持续的氢经济。支持将可再生资源广泛用于制氢,刺激可再生能源用于制氢,与风能,太阳能和水力发电结合;计划在交通运输中更广泛地部署FCV;运输以外的氢和燃料电池应用多样化,包括热电联产、备用电源设施等;并通过南南合作在其他发展中国家复制氢经济。



DOMINIC WAUGHRAY: Clean hydrogen at scale, produced from electrolysis ("green hydrogen") or gas with carbon capture and storage ("blue hydrogen") will be a critical component of the transition of hard-to-abate sectors toward net-zero emissions by 2050. This will involve investing in new infrastructure (such as charging stations) but also leveraging currently existing infrastructure such as gas networks, and blending hydrogen with natural gas for use in homes. This, in turn,

will also help increase demand for clean hydrogen and get it to scale, accelerate cost decreases (McKinsey and the Hydrogen Council have estimated that costs are projected to decrease by up to 50% by 2030 for a wide range of applications) and result in unlocking the clean hydrogen market much quicker than anticipated.

沃格雷: 电解产生的大规模清洁氢("绿色氢")或配备CCUS的氢("蓝色氢")将是难以减排行业到2050年向净零排放转型的关键组成手段。这将涉及新基础设施(例如充电站)投资,但也要利用现有的基础设施(例如燃气网络),以及将氢与天然气混合以用于家庭。反过来,这也将有助于增加对清洁氢气的需求并使其规模化,加速成本降低(麦肯锡和氢能源委员会估计,到2030年,广泛应用的成本预计将降低多达50%),并且使得清洁氢市场发展速度快于预期。



MICHAEL McELROY: Inexpensive renewable power can be used to electrolyze water to produce hydrogen, which in turn can serve as a non-carbon energy source complementing the direct use of electricity in a number of critical applications. These include: a) as an energy carrier that can substitute for fossil fuels to provide the high temperatures needed in heavy industries like iron and steel manufacturing; b) as an energy source and feedstock for production of bulk industrial and agricultural chemicals

now produced from hydrocarbons; c) as a zero-carbon energy carrier that, because of its relative storability, offers opportunities to balance variability of renewable power generation; and d) as a second zero-carbon energy source for the transportation sector, for use in fuel-cell vehicles.

麦克尔罗伊: 廉价的可再生能源可用于电解水以产生氢气,而氢气又可作为非碳能源,补充许多关键应用中的直接用电。其中包括: a) 作为能源载体,可以替代化石燃料来提供钢铁等重工业所需的高温; b) 作为能源和原料,用于生产现在由碳氢化合物生产的大量工业和农业化学品; c) 作为零碳能源载体,由于其相对的可存储性,为平衡可再生能源发电的可变性提供了机会; d) 作为运输部门的第二种零碳能源,用于燃料电池汽车。

Climate Adaptation

适应气候变化



HOWARD BAMSEY, Chair, Global Water Partnership:

As climate impacts become more severe, adaptation will require greater priority. Water will be the core of the adaptation task in China as it is in almost every country. Water, long a difficult and sensitive issue in China, was perhaps the first victim of climate change and is the vector for transferring climate damage through society and the economy to public health and sectors such as energy and agriculture. This may be the point to mention the report Watershed, co-authored by the Development

Research Centre of the State Council and the World Bank last year which proposed "a new era of water governance" in China. Its recommendations, if implemented - especially that calling for a national water coordinating mechanism - could transform the adaptation task.

全球水伙伴关系主席拜姆森:随着气候影响变得越来越严重,适应需要更多重视。与几乎每个国家一样,水将是中国适应工作的核心。长期以来,水一直是中国面临的一个棘手且敏感的问题,它也许是气候变化的第一个受害者,并且是通过社会和经济将气候损害转移到公共卫生以及能源和农业等部门的媒介。这里应该提到由国务院发展研究中心和世界银行去年合作发布的报告"分水岭",该报告提出了中国的"水治理新时代"。它的建议如果得到执行,特别是要求建立国家水协调机制的建议,可以改变适应气候变化工作。



NAOKO ISHII: Include efforts to build climate resilience in stimulus/development packages, such as public works programs and land, forest, and agriculture-based programs that target rural and vulnerable populations, to bring direct employment and food security benefits. It is important to enhance climate-resilient cities through infrastructure design, comprehensive flood management strategies and nature-based solutions for flood and drought management. Rapid urbanization is exposing cities to climate risks such as flooding, heatwaves, and frequent

droughts. These risks have direct impacts on the health, housing, and income of vulnerable citizens who are mostly poor and migrant workers. Encourage mainstreaming of resilience in key systems, including energy, food, and cities, as well as major sectors such as transport, water and sanitation, and health through integrated planning and investment support, to reduce vulnerability to future shocks and to enable sustainable re-development.

石井菜穗子: 将努力建立气候适应力的努力纳入复苏/发展计划中,例如针对农村和弱势群体的公共工程计划以及基于土地、森林和农业的计划,以带来直接就业和粮食安全利益。通过基础设施设计、全面的洪水管理策略和基于自然的洪水和干旱管理解决方案,打造并增强具有气候适应力的城市非常重要。快速的城市化使城市面临诸如洪水、热浪和频繁干旱等气候风险。这些风险直接影响到大多数贫困的弱势公民和外来务工人员的健康、住房和收入。通过综合规划和投资支持,鼓励将韧性纳入包括能源、粮食和城市在内的主要系统以及交通、水和卫生与医疗等主要部门的主流,以减少应对未来冲击的脆弱性,并实现可持续的复苏和发展。



ANDREW STEER: China's new National Climate Adaptation Strategy should promote a greater understanding of risks and vulnerabilities across key economic sectors and vulnerable populations as well as of what adaptation options to prioritize. It should identify ways to integrate climate risk considerations into all standard government processes from strategy development to budget formulation and investment decisions; improve decision making in the face of uncertainty; and strengthen the role of vulnerable populations and local actors in planning

processes. The new strategy should identify specific, measurable goals and be aligned with the 14th FYP for Economic and Social Development.

斯蒂尔:中国新的《国家气候适应战略》应增进人们对重点经济行业和弱势群体的风险和脆弱性以及优先考虑哪些适应方案的了解。它应该明确将气候风险因素纳入从战略制定到预算制定和投资决策的所有标准政府程序中;面对不确定性,改善决策;并在规划过程中加强弱势群体和当地社区的作用。新战略应确定具体的、可衡量的目标,并与《经济和社会发展第十四个五年计划》保持一致。



BOB TANSEY, Senior Advisor, The Nature Conservancy, on behalf of practitioners and experts of the TNC China Program and other global colleagues: Climate adaptation plans should be integrated into national and local government planning and seek synergies between climate mitigation and adaptation as well as with freshwater management, biodiversity conservation, marine governance, human health protection, and green infrastructure; identify key regions, sectors, and communities vulnerable to climate-related events, and

implement pilot programs in building climate resilience, drawing on recommendations from the <u>Global Commission on Adaptation</u>.

大自然保护协会(TNC)高级顾问坦希,代表TNC中国项目的从业人员和专家以及全球其他同事:气候适应计划应纳入国家和地方政府规划,并探索减缓和适应气候变化与淡水管理、生物多样性保护、海洋治理、人类健康保护和绿色基础设施之间的协同作用,可参考全球适应委员会的建议。

Biodiversity

生物多样性



ACHIM STEINER: The hosting of the UN Biodiversity COP 15 can promote eco-civilization globally. Strategic priorities as "Legacy Initiatives" could include promoting innovative public and private finance platforms in China and globally; including nature risk disclosure in the banking system; advancing fossil fuel and agriculture subsidy reforms; showcasing protected area financing, including conservation license plates, the Lion's Share Fund, and the use of block-chain technology. Build on existing trade partnerships to help green supply chains and

promotes the Climate and Land Use Alliance's Biodiversity-friendly supply chains. China can also enhance its protection, management, and restoration of endangered wildlife and demonstrate successful wildlife conservation models—engaging with Indigenous Peoples and local communities, promoting sustainable wildlife economies while combatting illegal trade.

施泰纳: 主办联合国《生物多样性公约》第15届缔约方大会(COP15)可在全球范围内促进生态文明。作为"遗产倡议"的战略重点可以包括在中国和全球范围内推广创新的公共的和私营的融资平台;包括在银行系统中披露自然风险;推进化石燃料和农业补贴改革;示范保护区融资,包括保护执照牌、Lion's Share基金会和区块链应用。加强与现有贸易伙伴的合作关系,以帮助和促进绿色供应链发展,并通过气候和土地利用联盟打造生物多样性友好型供应链。中国还可以加强其对濒危野生动植物的保护、管理和恢复,并展示成功的野生动植物保护模式——与原住民和当地社区合作,在打击非法贸易的同时促进可持续的野生动物经济。



KATE HAMPTON: There is a window of opportunity now to create a space for an evidence-based conversation looking at the intersection between biodiversity, food systems, and the prevention of zoonotic diseases. Intensive animal farming, biodiversity/ecosystem loss, wildlife trade and other factors increase the threat of zoonotic diseases. All countries have a shared interest in prevention, not just preparedness. However, the issue has been overlooked or oversimplified in the media and public discourse. This is a truly international problem

with multisectoral causes and should be addressed in a science-based and cooperative way, informed by systems and resilience thinking.

It would be welcomed if China were to put such a conversation on the agenda of the CBD, involving the World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO), and other multilateral agencies. We should provide alternatives to the highly politicized and counterproductive approach being employed by some countries to apportion blame for the COVID-19 pandemic when the risk factors for animal-to-human transmission of disease exist worldwide and require concerted national action and international collaboration to reduce risk.

韩佩东:现在有一个机会,可以为基于证据的对话创造一个空间,着眼于生物多样性、食物系统与人畜共患疾病的预防之间的交叉点。集约化畜牧业、生物多样性/生态系统丧失、野生动植物贸易和其他因素增加了人畜共患疾病的威胁。所有国家在预防上都有共同的利益,而不仅仅是准备上。但是,这个问题在媒体和公众话语中被忽视或简化了。这是一个真正具有多种领域原因的国际问题,应在各系统中和应变思想的指导下,以科学为基础的合作方式加以解决。

如果中国将这样的对话纳入《生物多样性公约》议程并使世卫组织、粮农组织和其它多边机构参与,我认为这将会受到欢迎。当某些动物/人传播疾病的危险因素在世界范围内存在并且需要采取协调一致的国家行动和国际合作以降低风险时,我们应该在某些国家采用的高度政治化和适得其反的做法以逃避责任时为他们提供替代方案。



DIMITRI DE BOER, Head of Client Earth China:

Tremendous progress has been made in China to double down on biodiversity-related enforcement. China should further prohibit and actively investigate and prosecute activities that seriously harm biodiversity, such as illegal wildlife smuggling, trade, sales and purchase; illegal pesticide production and use; illegal and seriously harmful fishing; and illegal land conversion. The habit of eating wild animals should be stopped, and the use of wildlife parts in traditional medicine should be strictly regulated. Public interest

litigation should be further expanded to allow prosecutors and NGOs to bring preventive cases, such as challenging flawed or inadequate environmental impact assessments in court.

克莱恩斯欧洲环保协会中国负责人龙迪: 中国在加强与生物多样性相关的执法方面取得了巨大进展。中国应进一步禁止并积极调查和起诉严重损害生物多样性的活动,例如非法走私、贸易、销售和购买野生动植物,非法生产和使用农药,非法和有严重危害的捕捞,以及非法的土地转换。应该停止食用野生动物的习惯,并应严格管制野生生物在传统医学中的使用。应进一步扩大公益诉讼的范畴,以使检察官和非政府组织可以对预防性案件提起诉讼,例如在法庭上对有缺陷的或不充分的环境影响评估进行质疑。



MARCO LAMBERTINI: Strengthen law enforcement on the wildlife trade and crack down on the illegal wildlife trade. Promote the construction of the legal framework for wildlife conservation in a stepwise manner and suspend the unsustainable use of endangered wildlife and its products, including but not limited to edible and medicinal products, pet-keeping, and other commercial uses. Consider the gradual closure of tiger farms nationwide, to forbid the illegal consumption of tiger bones and other tiger products. Given that

the Chinese pangolin is on the verge of extinction, remove Chinese pangolin scales from pharmacopeia and upgrade the pangolin protection level from category II to category I.

兰博蒂尼:加强野生动植物贸易执法,打击非法野生动植物贸易。逐步推进野生动植物保护法律框架的建设,终止濒危野生动植物及其产品的不可持续使用,包括但不限于食用和药用产品、宠物饲养和其他商业用途。考虑在全国范围内逐步关闭老虎养殖场,以禁止非法消费虎骨和其他虎制品。鉴于中华穿山甲濒临灭绝,请从药典中删除中华穿山甲鳞片,并将穿山甲的防护等级从II级提高到I级。



BOB TANSEY: As the host of COP15, China should make bold commitments to launch the implementation of the new Global Biodiversity Framework and set nature on a path to recovery. Ensure protection of at least 30% of each ecoregion within China, with a focus on areas most at risk, and promote restoration and regeneration of natural vegetation and ecological processes in priority degraded areas. China could also consider a leading investment in a large-scale fund under development to permanently secure up to 20 protected area

systems around the world with NGO partners; establish large-scale Compensation/Offset funds for nature in the Yangtze River Economic Belt (YREB) and nationally; and challenge other CBD Parties to create similar mitigation policies to prevent impacts to critical habitats and restore ecosystems. Work on restructuring debt owed to China for Blue Bonds and other Debt-for-Nature swaps.

坦希:作为《生物多样性公约》第十五次缔约方大会(COP15)的东道国,中国应作出大胆的承诺,开始实施新的《全球生物多样性框架》,并为自然设置一条复苏的道路。确保在中国每个生态区域中至少保护30%的土地,重点放在最危险的地区,并在重点退化地区促进自然植被和生态过程的恢复和再生。中国还可以考虑与其他NGO伙伴一起参与一项正在开发的大型基金并进项一项领先的投资,以在全球范围内永久保护多达20个保护区系统;在长江经济带和全国范围内建立大规模的自然补偿/补偿基金;并激励其他《生物多样性公约》缔约方制定类似的政策,以防止对关键栖息地的影响并恢复生态系统。以"蓝色债券"或其他自然类债务互换重组中国的外债。



HANS FRIEDERICH: Following the national decision to control wildlife consumption, China should lead the way in creating a global legal framework that will manage, monitor, and enforce guidelines and regulations for the use of wild meat and wild animal products for consumption, medical use, research, and traditional practices. This could include the creation and development of a UN Wildlife Convention with a global secretariat in China. An important issue is China's new legislation to control the use and consumption of wildlife meat.

China should take this domestic approach to a global level. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) deals with endangered species, while the challenge entails many other uses of wildlife meat: since the advent of the COVID-19 pandemic, this is an area where China could provide global leadership, with the CBD COP 15 providing a unique opportunity to make progress.

费翰思:在作出控制野生动植物消费的国家决定之后,中国应带头建立一个全球法律框架,该框架将管理、监督和执行有关将野生肉类和野生动物产品用于消费、医疗用途以、研究和传统做法的准则和规定。这可能需要建立一个秘书处设在中国的《联合国野生动物公约》。一个重要的问题是中国颁布了新的法规来控制野生动物肉类的使用和消费。中国应将这种国内方法推广到全球。《濒危野生动植物种国际贸易公约》涉及濒临灭绝的物种,而挑战还涉及野生动植物肉类的许多其他用途:自新冠疫情爆发以来,这是中国可以在全球发挥领导作用的领域,《生物多样性公约》第十五次缔约方大会提供了取得进展的独特机会。



NAOKO ISHII: Halt the use of wildlife and wildlife products in Traditional Chinese Medicine (TCM) and provide strong government leadership and messaging regarding the prohibition of wildlife-derived TCM products, such as bear bile, in the treatment of ailments, including COVID-19. Sustained and enhanced measures to eliminate high-risk wildlife consumption behaviors and markets while protecting subsistence and sustainable uses.

石井菜穗子:停止在传统中药(TCM)中使用野生动植物和野生动植物产品,并就禁止野生动物衍生的中药产品(例如熊胆)在治疗疾病(包括新冠肺炎)方面提供强有力的政府领导和信息。采取持续和加强的措施以消除高风险的野生动植物消费行为和市场,同时保护野生动物生存和资源可持续利用。

Nature-Based Solutions 基于自然的解决方案



BOB TANSEY: Mainstream nature-based solutions in climate change mitigation and adaptation. Enhance the ambitions and contributions of nature-based solutions in the NDC update. Natural systems, if properly protected and managed, can support the achievement of up to a third of the Paris targets needed by 2030. Agricultural lands are a part of this positive contribution. China could consider a moratorium on development affecting forests, wetlands, peatlands, and grasslands while ensuring

climate-smart management plans are in place and transforming agriculture steadily over time to be a net contributor to tackling climate change.

坦希:将基于自然界的解决方案纳入气候变化减缓和适应的主流。在国家自主贡献 (NDC)的更新中,增强基于自然的解决方案的雄心和贡献。如果得到适当的保护和管理,自然系统可以支持实现到2030年所需的巴黎目标的三分之一的减排量。农业土地是这一积极贡献的一部分。中国可以考虑暂停影响森林、湿地、泥炭地和草原的发展,同时确保制定气候智能管理计划,并随着时间的推移稳步推动农业转型,为应对气候变化做出贡献。



INGER ANDERSEN: Valuable resources in the natural reserves and national parks have an irreplaceable role in the ecosystem and ecology, and in the provision of ecological services which are much more precious compared to the benefit of using the resources only as goods. To help address employment needs and remediate the environmental impacts of medical waste, nature-based solutions can help restore contaminated sites while creating jobs.

安德森:自然保护区和国家公园中的宝贵资源在生态系统和生态学以及提供生态服务方面具有不可替代的作用,这与仅将资源用作商品的收益相比更为宝贵。为了帮助满足就业需求并补救医疗废物对环境的影响,基于自然的解决方案可以在创造就业机会的同时帮助修复受污染的场所。



NAOKO ISHII: Facilitate the wider adoption of valuation of nature-based infrastructure options in developing plans and strategies for the post-2020 framework for nature. Support initiatives to enhance awareness and adoption of nature-based solutions and infrastructure in vulnerable countries and regions. Continue to promote nature-based solutions and to seek synergies between climate adaptation /resiliency plans and biodiversity conservation (including efforts to halt

wildlife trafficking and protect human health), freshwater management, marine areas governance, and green infrastructure.

石井菜穗子: 在为2020年后的自然框架制定计划和策略时,推广更广泛地采用基于自然的基础设施方案。支持旨在增强弱势国家和地区对基于自然的解决方案和基础设施的认识和举措。继续促进基于自然的解决方案,并在气候适应/复原力计划与生物多样性保护(包括努力制止野生动植物贩运和保护人类健康的努力)、淡水管理、海域治理和绿色基础设施之间寻求协同作用。

Oceans

海洋



STEPHEN GROFF, Governor, National Development Fund of Saudi Arabia: On the topic of Marine Sustainable Development, it makes sense to consider marine sustainability as an end unto itself. While ocean fishing has become a modern "tragedy of the commons", China could contribute substantially - both by way of governance as well as through setting global standards in such areas as sustainable fishing practices, certification of sustainable fisheries, and sustainably caught fish. Such an approach would go some distance in setting an example

in the region and the rest of the world.

沙特阿拉伯国家发展基金会首席执行官格罗夫:在海洋可持续发展这一课题上,将海洋的可持续性本身视为终点是具有意义的。尽管海洋捕捞已成为现代版的"公地悲剧",但中国可以通过治理以及通过对可持续捕捞实践、可持续渔业认证和可持续捕捞鱼类等领域制定全球标准来做出实质贡献。这种方法可为该地区和世界其它地区树立榜样方面迈出步伐。



MARCO LAMBERTINI: It is important to conduct a comprehensive survey of marine ecological resources, carry out marine spatial planning, delineate marine ecological red lines and marine protected areas, and protect key species (including migratory species) and their habitats. China can help develop a sustainable blue economy, promote green finance to support conservation and restoration projects, eco-tourism and sustainable fisheries, as well as establish protected areas so as to reduce environmental impacts while promoting economic

growth. Protect the blue carbon sinks including mangroves, coral reefs, and seagrass beds to mitigate climate change.

兰博蒂尼: 对海洋生态资源进行全面调查、进行海洋空间规划、划定海洋生态 红线和海洋保护区以及保护关键物种(包括迁徙物种)及其栖息地非常重要。中国可以帮助发展可持续的蓝色经济、促进绿色金融以支持保护和恢复项目,生态旅游和可持续渔业以及建立保护区,并在促进经济增长的同时减少环境影响。保护包括红树林、珊瑚礁和海草床在内的蓝色碳汇,以减缓气候变化。



NAOKO ISHII: A national sustainable Blue Economy strategy would catalyze long-term natural resource availability and resilience of marine ecosystems. Sustaining and protecting healthy coastal and marine ecosystems such as deltas, mangroves, salt marshes, seagrasses, and coral reefs, are essential to sustaining fisheries, tourism, and coastal protection, sequester carbon, filter runoff waters and provide biodiversity hotspots. Catalyzing sustainable fisheries management practices through recognizing the vital role fisheries and fisheries

practices play in eliminating hunger, promoting health, and reducing poverty. To secure the primary protein source for 2.6 billion people globally, the world needs China to take a leading role in management of fisheries, including wild catches, farmed fish, but particularly by leading by example towards addressing illegal, unreported and unregulated (IUU) fisheries.

石井菜穗子:一项国家层面的可持续蓝色经济战略将促进长期自然资源的可用性和海洋生态系统的恢复力。维持和保护三角洲、红树林、盐沼、海草和珊瑚礁等健康的沿海和海洋生态系统,对于维持渔业、旅游业和海岸保护、固碳、过滤径流水和提供生物多样性热点至关重要。通过认识到渔业和渔业实践在消除饥饿、促进健康和减少贫困方面的重要作用,来催化可持续渔业管理做法。为了确保全球26亿人的主要蛋白质来源,世界需要中国在渔业管理中发挥领导作用,包括野生渔获物和养殖鱼类方面,尤其要以身作则,以解决非法、不报告和不管制的捕鱼为例。

Freshwater Basin Management

淡水流域管理

Yangtze River Economic Basin 长江经济带



MARCO LAMBERTINI: Accelerate scientific research and application of ecosystem services valuation and natural capital for regional planning, as well as Strategic Environmental Assessment for the development of regions such as the Yangtze River Basin, Yellow River Basin, Huanghai and Bohai Sea region and Guangdong-Huang Kong-Marco Greater Bay Area. Speed up the diversified and market-oriented ecological compensation mechanism, so as to actively explore the value-added path of ecological products. Pursue research, delineate and protect Key

Biodiversity Areas (KBAs), breaking administrative divisions if necessary. Make systematic conservation plans for all river basins according to objective and scientific biodiversity data, integrating operational protected area systems data, and existing areas and facilities, so as to improve the effectiveness of conservation.

兰博蒂尼:加快将生态系统服务评估和自然资本用于区域规划的科学研究和应用,以及对长江流域、黄河流域、黄渤海区域以及粤港澳大湾区等地区战略环境评估中。加快多元化和市场化的生态补偿机制,积极探索生态产品的增值路径。开展研究,划定和保护关键生物多样性区(KBA),必要时打破行政区划。根据客观、科学的生物多样性数据,针对所有流域制定系统的保护计划,整合保护区运行数据以及现有的领域和设施,以提高保护的有效性。



BOB TANSEY: Green development in the YREB begins with protection of the Yangtze River ecosystem, including through restoration of environmental flows and reduction of non-point source pollution by a shift in agriculture to nature-based methods enhancing long-term healthy soils as well as markets for storm waters management and the utilization of water funds in the Yangtze Basin. Such steps will greatly support water source protection for the YREB. Ecological compensation needs to include a compensation/offset mechanism to fund the

protection of natural ecosystems.

蒂默曼斯:长江经济带的绿色发展始于保护长江生态系统,包括通过恢复环境流量、通过将农业转向以自然为基础的方法来改善土壤长期健康以减少面源污染、以及建立市场以加强长江流域水管理和水资源利用。这些措施将大大支持长江经济带的水源保护。生态补偿需要建立补偿/减免机制以资助对自然生态系统的保护。

Green Urbanization

绿色城镇化



Environmental Sanitation Centre: Urban garbage and industrial garbage are collected and processed in different systems. However, considering the environmental impact of waste and its implications for sanitation, it is more appropriate to be supervised under a single system.

日本环境卫生中心理事长南川秀树:城市垃圾和工业垃圾在不同的系统中收集和处理。但是,考虑到废弃物对环境的影响及其对环境卫生的影响,最好在一个系统下进行监督。



HANS FRIEDERICH: Urban planning and development must change if we want to reach the Paris Agreement target. China's sponge city plans, its eco-civilization program and the Beautiful China vision can all be used to illustrate what should be done. China should embark on a global, foreign language communications program to explain the concepts and share lessons learned.

费翰思:如果我们想实现《巴黎协定》的目标,就必须改变城市规划和发展。中国的海绵城市规划中的生态文明计划和"美丽中国"愿景都可以用来说明应该做什么。中国应该开始一项全球性的交流计划,以解释这些概念并分享经验教训。



STEPHEN GROFF: With respect to Green Urbanization, there may be value in acknowledging the significant contributions China has made in conceptualizing, developing and implementing "city clusters" and the opportunity of using city cluster approaches to advancing green urbanization. There are some useful reflection on this in a <u>2019 paper</u> I wrote with ADB's Stefan Rau.

格罗夫: 在绿色城镇化中,承认中国在概念化和发展"城市群"方面做出的重大贡献以及利用城市群方法推进绿色城镇化的机会可能是有价值的。我在2019年与亚行(ADB)的Stefan Rau撰写的一篇<u>论文</u>中对此观点的一些有用的思考。



LI YONG: Eco-Industrial Parks within cities can bring about environmental efficiency that is higher than both what is mandated by the government and what is found in the baseline of the related sectors. This will improve the environmental performance in particular also of high resource-consuming, high-emission industries through optimizing their efficiencies individually but also across the different industries and sectors represented in such an Eco-Industrial Park.

李勇:城市中的生态工业园区可以带来比政府要求的以及相关部门基准更高的环境效率。通过单独以及跨越生态工业园所代表的不同行业和部门的效率优化措施,将特别能够改善高资源消耗、高排放行业的环境绩效。



MARCO LAMBERTINI: Improve urban planning and management capacity for biodiversity conservation and climate change resilience of cities. Build an integrated and multi-level ecological corridor network to form a ecological network within and between cities. Encourage the public to participate in the conservation of biodiversity in cities, and establish beautiful cities for nature and people.

兰博蒂尼:提高城市规划和管理能力,以保护城市的生物多样性和应对气候变化。建立一个综合的多层生态走廊网络,形成城市内部和城市之间的生态网络。鼓励公众参与城市生物多样性的保护,为自然和人民建设美丽的城市。



NAOKO ISHII: It is important to share a vision for net zero-carbon cities; urban systems such as energy and transport are vital for the sustainable growth of cities. The decarbonization potential of these sectors is immense in China with a significant increase in renewable power generation and electric mobility. The integration of nature-based solutions in cities - including green open spaces, urban forests, and wetlands within urban growth planning and infrastructure decisions – is an enormous opportunity.

石井菜穗子: 重要的是分享零碳城市的愿景。能源和交通等城市系统对于城市的可持续发展至关重要。随着可再生能源发电和电动交通的显着增加,在中国这些行业的脱碳潜力巨大。在城市发展规划和基础设施决策中纳入基于自然的解决方案是一个巨大的机会,包括绿色开放空间、城市森林和湿地。

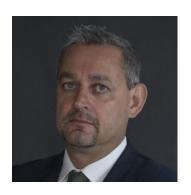


BOB TANSEY: To formulate an urbanization strategy based on ecological civilization, it is necessary to move from the functional city model to the biophilic or "nature-loving" city model (Chinese: 亲自然城市). Instead of segregated land use within the functional city, the biophilic model integrates land uses, explicitly incorporating natural features. Moreover, instead of treating nature as an externality, the biophilic city brings nature into urban planning and decision making, making wiser choices that promote the public good.

坦希:要制定基于生态文明的城市化战略,有必要从功能性城市模型转变为亲生物或"亲自然城市"模型。这种亲生物模型不是将功能性城市中的土地用途分开,而是将土地用途进行了整合,明确纳入了自然特征。而且,亲生物的城市没有将自然视为外部性,而是将自然带入城市规划和决策中,做出了明智的选择,以促进公共利益。

Green Technology

绿色技术



DOMINIC WAUGHRAY: Spending on clean energy following the 2008 crisis contributed positively to the economic recovery, especially through efficiency programs and government support, unlocking spectacular growth in wind and solar over the past decade in China and globally. Efficiency, solar, and wind technologies have the potential for continued growth and job creation and can be further enabled by targeted policy measures. China is already a leader in Li-ion technology, but further investment at this critical stage of development could bring

down costs significantly allowing mass deployment of the technology in China and globally. It would also build a significant industry which would be a pillar of the post COVID economic recovery. Many more technologies will be needed to achieve the energy transition, including those that are currently at a turning point and could help in the so-called "hard-to-abate sectors:" clean hydrogen, carbon capture, CCUS, smart energy grids and advanced biofuels are among such technology areas that are at a pivotal moment where mass manufacturing and deployment could turn them into vital elements in clean energy transitions worldwide.

沃格雷: 2008年危机后的清洁能源投资为经济复苏做出了积极贡献,特别是通过提高效率计划和政府支持,过去十年中在中国和全球范围内风能和太阳能呈现了惊人增长。效率、太阳能和风能技术具有持续增长和创造就业机会的潜力,可以通过有针对性的政策措施进一步实现。中国已经是锂离子技术的领导者,但在这一关键发展阶段的进一步投资可能会大大降低成本,从而使该技术能够在中国乃至全球大规模部署,这也将建立一个重要的行业,并成为疫后经济复苏的支柱。实现能源转型将需要更多的技术,包括那些目前正处于转折点的技术,这些技术可能有助于所谓的"难以减排的部门"脱碳,包括清洁氢,碳捕集、利用和封存(CCUS),智能能源网格和先进的生物燃料,这些技术领域正处于关键时刻,大规模生产和部署可将其成为全球清洁能源转型的关键要素。

Green Consumption

绿色消费



AJAY MATHUR: Transparency is important since it helps tell people what has been achieved. When we know that we are part of a community, a community that is sing more public transport, a community that is living in energy-efficient housing, a community that is using renewable energy, it helps us make decisions that support green consumption and helps us be proud of those decisions. Mechanisms and tools like apps should be expanded to help communities and people share their experiences with green consumption.

马瑟尔:透明度很重要,因为它有助于告诉人们已取得的成就。当我们知道自己是一个社区的一部分,一个提倡公共交通的社区、一个节能住宅居多的社区、一个使用可再生能源的社区时,它可以帮助我们做出支持绿色消费的决策,并且帮助我们为这些决定感到自豪。应促进诸如应用程序之类的机制和工具,以帮助社区和人们分享其绿色消费经验。



KATHLEEN McLAUGHLIN, Executive Vice President and Chief Sustainability Officer, Walmart: The definition of green consumption and green production has a broader focus than reduced pollution and carbon emissions, to related issues like natural ecosystems such as forests, oceans, freshwater quality, soil health, which also contribute to carbon emissions. It is important to take an end-to-end approach to consumer products, to consider the entire life cycle of a product in its definition of green so as to include the origins of raw materials

all the way up to consumption and end of life. Making progress on green consumption is extremely dependent on making progress in the production of green goods: they go hand-in-hand. Progress could include identifying investing in building the capabilities of the producers of products to produce more green products, whether that means sustainable agriculture, decarbonizing manufacturing, sustainable fisheries, transportation, and all other aspects of the chain.

沃尔玛基金会主席,沃尔玛公司高级副总裁兼首席可持续发展官麦克劳克林: 绿色消费和绿色生产的定义比减少污染和碳排放更着重于关注诸如森林、海洋、淡水质量、土壤健康等自然生态系统的相关问题,这也会导致碳排放。重要的是要对消费产品采取点到点的方法,以绿色定义考虑产品的整个生命周期,以便包括原材料的来源、直至消费和寿命终止。在绿色消费方面取得进展在很大程度上取决于绿色产品生产方面的进展:它们并驾齐驱。进展可能包括确定投资以提升产品生产商绿色产品制造能力,可以是可持续农业、脱碳制造业、可持续渔业、交通运输和供应链的所有其他方面。



MARCO LAMBERTINI: It is important to establish mechanisms and platforms for trading, procurement, and consumption of sustainable commodities, promote the construction of sustainable traceability systems, strengthen international cooperation on sustainable supply chains, and improve and promote the certification standard of sustainable production. Encourage target setting on food waste reduction and spoilage rate for key sectors - such as hospitality, catering, and logistics - and formulate relevant incentive policies so as to

integrate industry practice with regional development.

兰博蒂尼:建立可持续商品的贸易、采购和消费机制、平台,促进可持续追溯系统的建设,加强可持续供应链上的国际合作,改善和促进可持续生产的认证标准非常重要。鼓励在接待、餐饮和物流等关键部门制定减少食物浪费和腐败率的目标,并制定相关的激励政策,以将行业实践与区域发展相结合。



INGER ANDERSEN: The goal of sustainable consumption and production is to achieve carbon-neutral, resource-efficient, nature-friendly and pollution-free socioeconomic development. Green consumption in various sectors is one of the main components of "Green Development" in China and is achieved through sustainable lifestyles based on the concept of ecological civilization. Green consumption helps in both "building back nature" and creating new business models and jobs.

安德森:可持续消费和生产的目标是实现碳中和、提高资源效率、发展自然友好和无污染的社会经济。各个部门的绿色消费是中国"绿色发展"的主要组成部分之一,它是通过基于生态文明概念的可持续生活方式来实现的。绿色消费有助于"重建自然"和创造新的商业模式和创造就业机会。



LI YONG: A key element for improving environmental performance is through the green design or eco-design of products. The first important step is to develop products that are minimizing pollution – whether these are energy-efficient appliances or electrical products without persistent organic pollutants like flame retardants, to name only two examples. These products, secondly, should be easy to repair and dismantle, and should have longevity built in. Greener design can also support products to be more resource efficient in manufacturing,

distribution, use, and disposal. Requirements leading industry to move toward green design do facilitate innovation, and support not only environmental sustainability but also the economic sustainability of manufacturers and societies as a whole. Due to its widespread,

multi-layered industrial production and strong institutional structure and good education, China can generate advantages here for the environment and the economy simultaneously.

李勇:提高环境绩效的关键是产品的绿色设计或生态设计。重要的第一步是开发可将污染降至最低的产品,无论是节能设备还是不含持久性有机污染物作为阻燃剂的电气产品。其次,这些产品应易于维修和拆卸,并具有长久的使用寿命。更环保的设计还可以支持产品在制造、分销、使用和处置方面具有更高的资源效率。引领行业走向绿色设计的要求确实促进了创新,不仅支持环境可持续性,而且还支持制造商和整个社会的经济可持续性。基于其广泛、多层的工业生产系统,强大的制度结构和良好的教育水平,中国可以在这一领域同时为环境和经济带来好处。



BOB TANSEY: The expansion of green consumption in key sectors, and for agriculture in particular, should include Chinese import preferences for soy and other agricultural commodities that avoid further deforestation in producing countries and a system for ensuring implementation. China should ensure that its consumption, use, and trade of wild animal and plant products, including timber, are sustainable.

坦希:在关键部门,特别是在农业方面,绿色消费应包括中国对大豆和其他农产品的进口政策,以避免加剧生产国的森林看法,以及确保相关政策实施的机制。中国应确保其野生动植物产品(包括木材)的消费、使用和贸易是可持续的。



DOMINIC WAUGHRAY: Decarbonize production, while creating jobs in the recycling sector through the circular economy, implemented China's pre-existing targets set to source 20% raw materials with product categories from recycled content by 2025, and to recycle 50% of waste products with an initial focus on automotive, electronics and batteries.

Establish relevant standards to regulate the quality of recycled/ recovered materials that will be used as raw material. Provide incentives to companies who use high percentage of high-

quality recycled material in their products. Focus initially on sectors with a high potential to integrate secondary materials including automotive, electronics and batteries. At the same time, encourage technology innovation in material recovery process to make sure the entire process will be traceable and environmental/health friendly. Provide incentives to recycling companies who can recover materials that are strategically important. Pilot "close loop" initiatives in collaboration with the private sector.

In the automotive sector there should be a life-cycle assessment of emissions of automobiles. Electrification should be accompanied by an emphasis on low-carbon materials and circular manufacturing (calculated on an emissions per passenger km basis). In the electronics sector, set up classification standards for used electronic components and/or parts that could be recycled and re-used as raw materials. These materials should be allowed to transport across borders and in and out of bonded zones to make new products. EV batteries can be repurposed in energy storage and thus increasing the recycled benefits from the materials. Fund large scale demonstration of programs for second life battery use and battery recycling.

沃格雷: 脱碳生产,同时通过循环经济在回收行业创造就业机会

实施中国预先设定的目标:到2025年从可回收成分中获取20%用于各类产品的原材料,并开始着重在汽车,电子和电池行业回收50%的废品。

建立相关标准以规范将用作原材料的回收/恢复材料的质量。对在产品中使用高比例高质量再生材料的公司提供补贴。首先将重点放在具有集成二级材料的高潜力领域,包括汽车,电子和电池。同时,鼓励材料回收过程中的技术创新,以确保整个过程可追溯且对环境/健康无害。为可回收具有战略重要性的材料的回收公司提供补助。与商业公司合作开展"闭环"试点举措。

在汽车行业,应该对汽车的排放进行生命周期评估。电气化应伴随着对低碳材料和循环制造的重视(以每乘客公里的排放量计算)。在电子行业,为可循环再用作为原材料的二手电子元件和/或零件设置分类标准。这些材料应被允许跨境运输并进出保税区以制造新产品。 电动车电池可重新用于能量存储,然后进行回收利用,从而增加了材料的用处。资助电池再次使用和电池回收的大规模演示项目。

Green Finance

绿色金融



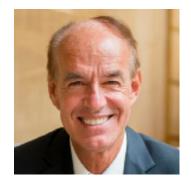
DIRK MESSNER: There is a need to foster international cooperation to finance green growth, recognizing that a green recovery cannot be sustained by the public sector alone: it is therefore crucial to increase cooperation in the field of sustainable green finance.

梅森纳:有必要促进国际合作为绿色增长提供资金,同时认识到仅靠公共部门就无法支持绿色复苏,在可持续绿色金融领域加强合作至关重要。



INGER ANDERSEN: China provides huge domestic and international investments. New, green investment, product lines are opening huge markets due to the scale of investments in energy, infrastructure, transport, housing, agriculture, and other sectors. China is continuously improving its processes and procedures to ensure that the financial sector is environment friendly. Delivering prosperity through green investments in sustainable infrastructure will be core.

安德森:中国提供大量的国内和国际投资。由于在能源、基础设施、交通、住房、农业和其他领域的投资规模巨大,新的绿色投资产品线正在打开巨大的市场。中国正在不断改善其流程和程序,以确保金融部门对环境友好。通过对可持续基础设施进行绿色投资来实现繁荣将是核心。



MARCO LAMBERTINI: Improve green fiscal and monetary policies, promote the application of innovative green financial instruments, and increase funds to support green industries and ecological and environmental protection.

兰博蒂尼: 改善绿色财政和货币政策,促进创新性绿色 金融工具的应用,并增加用于支持绿色产业以及生态和环境保护的资金。



NAOKO ISHII: Foster the broad adoption of national and sub-national biodiversity finance instruments, mobilizing both public support and private investment. Channel resources and technical assistance to biodiversity conservation finance specifically via the National Green Development fund. Support enhanced alignment of national financial regulation with environmental sustainability considerations.

石井菜穗子:广泛采用国家和地方层面的生物多样性融资手段,动员公共支持和私人投资。专门通过国家绿色发展基金将资源和技术援助用于生物多样性保护资金。支持将国家金融法规与环境可持续性考虑因素更好地结合起来。



DOMINIC WAUGHRAY: Define a green bond policy defining (and prioritizing) permissible investments in order to finance China's energy transition. China is currently the global leader in green bond issuance, collecting USD 22.9 billion in green bond proceeds in 2019 (as compared to USD 19.6 billion raised by U.S. issuers). However, there is still a lack of international standards on defining "green investments," which can lead to issues of "green-washing." China has the opportunity to become a global leader in setting global standards in defining green investments

and providing a roadmap for energy transition, this could include strengthening programs such as the Green Investment Principals on the BRI. It is recommended green bonds target the specific areas of renewable energy (wind and solar), carbon-neutral technologies (i.e., more efficient batteries) and sustainable water and waste management.

沃格雷:制定绿色债券政策,以定义(并优先考虑)符合标准的投资,以支持中国的能源转型。中国目前是绿色债券发行的全球领导者,2019年收取了229亿美元的绿色债券保证金(相比之下,美国发行人募集了196亿美元)。但是,在定义"绿色投资"方面仍然缺乏国际标准,这可能导致"洗绿"问题。中国有机会成为全球领导者,为制定绿色投资定义全球标准并为能源转型提供路线图,这可能包括加强诸如"绿色一带一路"投资主体等计划。建议聚焦可再生能源(风能和太阳能)、碳中和技术(如更高效的电池)以及可持续的水和废弃物管理领域。



BOB TANSEY: Conservation finance is emerging as an arena where China, already a leader in green finance, can provide an example and reap benefits. China can help show the world the economic case for biodiversity protection through a new and broader model that includes shifts in subsidies, public & private finance, and market mechanisms.

坦希:保护性金融正在成为一个舞台,中国已经是绿色金融的领导者,中国可以提供榜样并从中受益。中国可以通过一种新的、更广泛的模型来向世界展示保护生物多样性的经济案例,其中包括补贴、公共和私人融资以及市场机制的转变。

Green Supply Chains

绿色供应链



MANISH BAPNA: As an essential node in global value chains across multiple sectors, China's green development contributes to building a community of common destiny for all humankind and achieving sustainable development. Greening global value chains also helps ensure China adheres to fast-evolving national laws in producer countries.

巴布纳:作为跨多个部门的全球价值链中的重要节点,中国的绿色发展有助于建立人类命运共同体并实现可持续发展。绿色的全球价值链还有助于确保中国遵守生产国快速发展的国家法律。



GUILLERMO CASTILLEJA, Senior Fellow, Gordon and Betty Moore Foundation; Chair, Global Alliance for the Future of Food: While the role of supply chains is recognized, it is important when examining "green" approaches to look systematically at different types of impacts and feedback loops that occur when one takes a systems perspective. An example of this is the role of food supply chains that, on the production end, entail natural capital erosion (such as soy) and human capital erosion on the consumption end given the impact on human

capital (such as cardiovascular disease as the result of increased meat consumption, meat that is produced with soy feed). A second consideration is to take into account possible policy changes in some critical international supply chains where trade disruptions can threaten food security in China.

戈登和贝蒂-摩尔基金会高级研究员、全球粮食未来联盟主席卡斯缔尔加:尽管人们认识到供应链的作用,但在研究"绿色"方法时从系统角度看待发生的不同类型的影响和反馈循环时,这一点很重要。食品供应链的作用就是一个例子,它在生产端造成自然资本侵蚀(例如大豆),而在消费端造成人力资本侵蚀,因为这对人力资本产生了影响(例如肉类食用量增加导致的心血管,而肉类生产依赖大豆饲料)。第二个因素是考虑到某些关键的国际供应链中可能发生的政策变化,在这些供应链中,贸易中断会威胁到中国的粮食安全。



DOMINIC WAUGHRAY: Repurposing public investments, including subsidies, policies and regulatory frameworks could support a change in the economics that drives stakeholders across food systems, including the private sector, smallholder farmers, and consumers. These reforms could include repurposing subsidies toward nature-based solutions, regenerative and sustainable agriculture, and plant-based (alternative) proteins that allow China to supply its own protein safely, and could extend across public procurement, tariffs and

trade policies, consumer protection, and finance around food systems. Global disruptions over the past few years – from the African swine fever and Avian flu, and now to COVID-19 – have exposed the vulnerabilities of food supply for a population that currently consumes approximately one-quarter of the world's total meat, as well as the resulting implications for jobs and the economy when these supply chains are disrupted. With projections that by 2040 only 40% of global protein will continue to come from conventional animal-based meat, the post-COVID stimulus package investments can be geared to accelerate that future through research and development into plant-based proteins and cultured meat, and jobs to support this ecosystem. China has an important role in global food supply chains. It is a significant opportunity to become the global leader in digital supply chains which can input end-to-end traceability into the value chain.

沃格雷: 重新利用包括补贴、政策和监管框架在内的公共投资,可以通过经济利益变化激励整个食品体系的利益相关者,包括私营部门、小农和消费者。这些改革可能包括将补贴重新用于基于自然的解决方案、可再生和可持续农业以及植物性(替代性)蛋白质,这些蛋白质可以使中国安全地提供其自身蛋白质,并可以扩展到公共采购、关税和贸易政策、消费者保护和围绕粮食系统筹集资金等领域。在过去的几年中,从非洲猪瘟和禽流感到现在的新冠肺炎,全球性危机已经暴露了食品供应的脆弱性,中国目前肉类消费总量占全球四分之一左右,这些供应链中断后,将就业和经济产生的影响。预计到2040年,全球蛋白质中仅40%将继续来自传统的动物性肉,疫后复苏计划的投资可以用于研发对植物性蛋白和养殖肉以及相关就业支持来加速实现这一未来。中国在全球食品供应链中发挥着重要作用,也面临着成为数字供应链全球领导者的重要机遇,而数字供应链可以将点到点的可追溯性输入到价值链中。



NAOKO ISHII: Enhance sustainability standards for the import of agriculture commodities to ensure they are deforestation-free and low-carbon, particularly for soy and beef.

石井菜穗子:提高农产品进口的可持续性标准,以确保 其不造成森林砍伐且是低碳的,特别是大豆和牛肉进口。

Green Belt and Road

绿色"一带一路"



HANS FRIEDERICH: The BRI is arguably the most comprehensive development program since the Marshall Plan after the Second World War. China must make even more efforts to ensure that all activities along the belt and road are green and climate proof. This will include disengaging from "bad" project such as coal-fired power stations or large-scale deforestation for agricultural production or other purposes; China's new international development support program must recognize and support "green development" activities, and refuse to invest in

old-fashioned, environmentally unfriendly or climate-threatening projects and programs. The Forum on China–Africa Cooperation (FOCAC) should be used to promote "green development" in Africa. Proper rules should be developed that guide the type of projects that can be funded through this mechanism.

费翰思: "一带一路"倡议可以说是自第二次世界大战后的马歇尔计划以来最全面的发展计划。中国必须作出更大的努力,以确保沿线的所有活动都是绿色的且不损害气候的。这将包括剥离"不良"项目,例如燃煤电站或为农业生产或其他目的而大规模毁林;中国新的国际发展支持计划必须认可和支持"绿色发展"活动,并拒绝投资于传统的、对环境不利或对气候有威胁的项目和计划。中非合作论坛(FOCAC)应被用来促进非洲的"绿色发展"。应该制定适当的规则,以为通过该机制资助特定类型项目提供指导。



KATE HAMPTON: The BRI International Green Development Coalition should rapidly progress its work on the traffic light system, engaging BRI countries and aligning with the emerging taxonomy work and the global conversation around green recovery. With coal assets are being stranded at a rapid rate, China need to restrict its overseas coal-fired power generation investment and pivot to renewable energy and green projects.

China could further strengthen cooperation with Southeast Asian and African countries for the top-level design of low-

carbon and renewable energy strategies. France could a key ally in this space that China should intensify discussions with, especially in light of the Finance in Common 2020 Summit in November in Paris.

韩佩东: "一带一路"国际绿色发展联盟应在"红绿灯"系统方面迅速开展工作,与"一带一路"沿线国家互动,并与正在进行的可持续分类工作和围绕绿色复苏开展的全球对话保持一致。随着煤炭资产的快速搁浅,中国需要限制其海外燃煤发电投资,并转向可再生能源和绿色项目。

中国可以进一步加强与东南亚和非洲国家在低碳和可再生能源战略顶层设计方面的合作。法国可能是中国应该加强与这个领域沟通的关键盟友,尤其鉴于11月巴黎将举行金融共同峰会(Finance in Common Summit)。



MARCO LAMBERTINI: Promote cooperation with countries and regions along the BRI route, in areas such as sustainable infrastructure, green finance and green supply chain, boost the integration of ecological environmental protection policies, regulations and technologies, including ecological red lines, strategic environmental assessments and natural capital assessments. Explore the formulation of investment project lists and investment and financing guides of Green BRI and prioritize pilots of green investment projects with multi-dimensional

cooperation and mutual benefit - so as to effectively promote the interconnections between the BRI and the ${\tt 2030}$ SDG agenda

兰博蒂尼:促进与"一带一路"沿线国家和地区在可持续基础设施、绿色金融和绿色供应链等领域的合作,促进生态环境保护政策、法规和技术的整合,包括生态红线、战略环境评估和自然资本评估。探索制定绿色"一带一路"投资项目清单和投融资指南,并优先安排涵盖多维合作和互惠互利的绿色投资项目试点,从而有效促进"一带一路"倡议与2030年可持续发展目标议程之间的相互联系



MANISH BAPNA: The economic case is undeniable for BRI to pivot away from coal and towards renewable energy. It is therefore important to develop policies and guidelines, including through the State Council's Overseas Investment Guidelines, that encourage state owned enterprises (SOEs) to promote renewable energy in BRI investments. Moreover, environmental screening for overseas investment should be supported through the forthcoming traffic light system.

巴布纳: "一带一路" 倡议从煤炭转向可再生能源的经济情况是不可否认的。 因此,制定政策和指南,包括通过国务院的《海外投资指南》,以鼓励国有企业在"一带一路"投资中促进可再生能源显得非常重要。此外,应通过即将启用的交通信号灯系统来对海外投资进行环境筛选。



ACHIM STEINER: With its global networks, implementation, and policy advisory capacity can support China in moving toward environmental sustainability. Environmental sustainability requires globally coordinated policies to which the combined scale and scope of China with BRI partner countries can provide critical momentum, provided conducive policy choices are made. BRI investments create long-lasting assets with locked-in carbon intensity. Their transition toward renewable energy sources could help tip the balance toward low-

carbon development for the world—pivotal for sustainable development and a safe climate future. It would enable global sustainable development without further increase in the use of fossil fuels, given the climate change imperatives and UNFCCC commitments.

施泰纳: 开发署的全球网络、实施和政策咨询能力可以支持中国迈向环境可持续发展。环境可持续性要求需要全球协调的政策,只要中国做出了有益的政策选择,中国与"一带一路"倡议伙伴国家的规模和范围的结合就可以提供关键的动力。"一带一路"投资将建造持久的资产并锁定了碳强度。他们向可再生能源的转型可以帮助世界向低碳为了发展,这对于未来的可持续发展和气候安全至关重要。鉴于气候变化难以阻挡和《气候公约》的承诺,这将帮助全球可持续发展且不会过度增加化石燃料的使用,考虑到气候变化的紧迫性和《联合国气候变化框架公约》的承诺。



ANDREW STEER: The decarbonization of energy infrastructure investment in BRI countries is essential to keeping global warming within 2 °C as outlined in the Paris Agreement and promoting prosperity and sustainable development in BRI countries. With China's financial flows playing a critical role in financing energy infrastructure, there is an opportunity that China can seize to help achieve the sustainable development, climate, and environmental goals in BRI countries. Green capacity building includes climate

and environmental policy planning and evaluation, country- and city-level GHG inventory development, and life-cycle environmental analysis. It is critical to equip local officials with more environmental-friendly decision-making and policy tools. Launching a policy package to promote SOEs' overseas investments in renewable energy projects. The Ministry of Ecology and Environment should develop a screening tool to classify projects into green, yellow-, and red-light categories and propose an exclusion list, based on their potential climate and local pollutant opportunities and risks.

It is important to establish a tracking platform on Chinese outbound investment: Data for baselining and tracking Chinese investment is critical to understand its sustainability. It will enable policymakers, Chinese financiers, and other stakeholders to hold themselves accountable and to identify how they can jointly bring about change. The tracking platform

shall publish timely and project-level data including Chinese financiers, financing scale, and project owners. A grievance redress mechanism for Chinese development and private financial institutions would enhance their performances in BRI countries.

斯蒂尔: "一带一路"国家能源基础设施投资的脱碳对于将全球温升保持在《巴黎协定》所述的2°C以内以及促进"一带一路"国家的繁荣与可持续发展至关重要。随着中国的资金流动在为能源基础设施融资中发挥关键作用,中国有机会抓住机遇,帮助实现"一带一路"沿线国家的可持续发展、气候和环境目标。绿色能力建设包括气候和环境政策规划与评估、国家和城市一级的温室气体清单编制以及生命周期环境分析。为当地官员配备更加环保的决策和政策工具至关重要。推出一项政策计划,以促进国有企业(SOE)在可再生能源项目中的海外投资。生态环境部应开发一种筛选工具,将项目分为绿灯,黄灯和红灯类别,并根据其潜在的对气候以及当地污染的风险提出排除清单。

建立对中国对外投资的追踪平台非常重要,对中国投资进行基准评估和追踪的数据对于了解其可持续性至关重要。它将使决策者,中国投资者和其他利益相关者能够对自己负责,并确定他们如何共同实现变革。跟踪平台应及时发布项目级别的数据,包括中国投资者、融资规模和项目所有者。针对中国发展和私营金融机构的申诉机制将提高其在"一带一路"沿线国家的表现。



ISKANDAR ABDULLAEV, Deputy Director, CAREC Institute: Providing strong support and incentives for BRI investments into the emerging renewable energy sector in Central Asian countries. Currently, this sector has started to take off in Central Asia.

中亚区域经济合作学院副院长阿布杜拉维:应为中亚国家新兴的可再生能源领域提供强有力的支持和"一带一路"投资激励。目前,这一领域开始占据中亚。



VIDAR HELGESEN: End coal investments along the Belt and Road Initiative; encourage the State-Owned Assets Supervision and Administration Commission (SASAC) to incorporate "green and sustainable" as an assessable criterion into performance evaluations. Encourage Sinosure and other companies to include environmental risks in their business management, fully implement climate risk disclosure, and perform risk assessments in investment decisions domestically and abroad.

赫尔格森:终止"一带一路"的煤炭投资;鼓励国有资产监督管理委员会 (SASAC)将"绿色和可持续"作为可评估的标准纳入绩效评估。鼓励中信保以及其它企业将环境风险纳入其业务管理;全面实施气候风险披露并在国内外投资决策中进行风险评估。



HOWARD BAMSEY: Given the unequivocal commitment of the government at the highest level to greening of the BRI, financial innovation will be critical if truly green finance is to become mainstream. Ensuring that new instruments are devised to enable greener outcomes is a step frequently overlooked as policies are developed, often because the required knowledge and skills are to be found in another intellectual discipline or part of government.

拜姆森:鉴于政府最高层对"一带一路"倡议的明确承诺,如果真正的绿色金融成为主流,金融创新将至关重要。在制定政策时,要确保设计出新的工具以实现更绿色的结果,这是一个经常被忽略的步骤,这通常是因为要在另一门学科或政府部门中找到所需的知识和技能。



LI YONG: Beyond the establishment of public infrastructure, establishing industries is clearly a main objective of the BRI: such industries should maximize the use of resources and minimize waste and pollution, as much in their own economic interest as in the interest of the countries where they are located. Adherence to certain environmental standards – for example China's domestic standards – could be facilitated for such industry investments where the Government of China supports establishment of these industries through financial instruments. This could

include GHG emissions or pollution standards, but also adherence to resource-efficiency requirements, including cleaner production. Eco-Industrial Parks could also help in BRI countries to improve resource efficiency and reduce waste and pollution. China should faithfully apply its current and emerging green policies to its overseas investments and activities, including supporting policy development in recipient countries that lack spatial plans that identify ecological red lines. In most cases, it will benefit overall SDG attainment.

李勇:除了建立公共基础设施之外,建立工业显然是"一带一路"倡议的主要目标:此类工业应最大限度地利用资源,并尽量减少浪费和污染,这既符合自身的经济利益,也符合其所在国家的利益。在中国政府通过金融工具支持建立这些工业的情况下,可以促进遵守某些环境标准(例如中国的国内标准)。这可能包括温室气体排放、污染标准、也要遵守资源效率要求,包括清洁生产。生态工业园还可以帮助"一带一路"沿线国家提高资源效率、减少浪费和污染。

中国应忠实地将其当前和正在制定的绿色政策应用于其海外投资和活动,包括支持缺乏生态红线区域规划的受援国制定政策。在大多数情况下,这将有利于整体实现可持续发展目标。



GUILLERMO CASTILLEJA: Many of the challenges in decision making that the green economy will face are associated with the lack of visibility of all kinds of externalities, not just environmental, but also social and human. The adoption of true cost accounting in decision making would go a long way in assessing options and alternative scenarios for small and large interventions such as BRI. At the highest level, true cost accounting could provide the framework for vetting project options in terms of their potential impacts - both positive and

negative - on financial, natural, social, and human capital. That type of assessment should eliminate some of the least appropriate projects in terms of their overall costs and benefits as assessed from a systemic perspective. This assessment would then be followed by more specific environmental assessments of potential impacts of more specific projects.

卡斯缔尔加:绿色经济将面临的许多决策挑战与缺乏对各种外部因素的可见性有关,不仅包括环境,还包括社会和人类。在决策中采用真实成本核算对于评估"一带一路"等不同规模的倡议的备选方案和替代方案将大有帮助。在最高层次上,真实成本核算可以为根据项目潜在影响(包财务、自然、社会和人力资本方面正面和负面的影响)遴选项目提供框架。这种评估可以提出一些从系统角度看综合成本收益最差的项目。然后,在进行此评估之后,应对更具体的项目的潜在影响进行更具体的环境评估。



STEPHEN HEINTZ: China can push for constructive bilateral action through investment in clean energy infrastructure and the export of its innovative low-carbon development models. Working across agencies, the Ministry of Ecology and Environment (MEE) can help set the institutional and policy foundations to accelerate the "greening" of the BRI. The diverse stakeholders represented in the Belt and Road Initiative International Green Development Coalition can help build capacity for Chinese actors to collaborate more effectively with global partners.

汉兹: 中国可以通过对清洁能源基础设施进行投资并出口其创新的低碳发展模式来推动建设性的双边行动。通过跨机构合作,生态环境部(MEE)可以帮助建立机制和政策基础以加速绿色"一带一路"建设。"一带一路"国际绿色发展联盟所代表的利益相关方可以帮助中国参与者提高能力,以更有效地与全球伙伴开展合作。



