

The 5th China-UK Innovation and Development Forum

Session 1. Keynote Speech - The Common Challenges in Post-Pandemic Era: The Role of STI

**Cooperation Innovation on Climate in a Changing Context of
Post Pandemic of COVID19**

新冠疫情背景下的气候合作创新

Prof. Dr. WANG Yi / 王 毅

CAS Institutes of Science and Development / 中科院战略咨询院

Zoom meeting, 20 Oct 2020

气候合作与创新是实现全球碳中和的必由之路

Climate cooperation and innovation for achieving global carbon neutrality earlier

- **Many studies show the Climate Change would be the biggest issue the human society will be facing for a long time after COVID19 pandemic**
- **Cooperation is a basic consensus for addressing global issues like Climate whatever happens**
- **New announcements:**
 - President Xi pledged in remarks to the UN General Assembly on 22 Sept. : carbon emissions peaking before 2030 & carbon neutrality by 2060
 - EU enhanced its target of carbon emissions reduction in 2030: 55% or 60%
- **We must take action now and need a *Cooperative Leadership* for addressing global issues like climate in a changing context of COVID-19 and geopolitical uncertainties**
 - No country could take the lead solely on Climate
 - Continue to provide global public goods for climate emergency
 - Legacy of Paris Agreement: achieve multi-lateral result through bi-lateral negotiation
 - Expand the scope of Cooperation and raise the *synergic effect / co-benefits*
 - Deal with uncertainties and manage risks, such as China-US relationship and COVID-19
 - For China, we have only 40 years to go to the target, clear direction but pathway uncertainty

中国已经采取的应对气候变化和绿色发展行动

China's Efforts for Climate, SDGs and Green Development

● Domestic

- Set up the 14th FYP and goals to 2035, special planning on climate
- Economic recovery with new infrastructure including new energies and charging pile, etc.
- Promote low carbon tech innovation, etc.

● International

- **Dialogue with EU, UK, US, and other developed countries at different levels**
 - ✓ **Implement the Paris Agreement** firmly and maintain the **Multilateralism** and **sustainable security**, and actively participates in global governance reform
 - ✓ China, Germany, EU leaders virtual meeting on 14 Sept., high level dialogue on climate and environment, green partnership, COP15 and COP26
- **China's efforts of South-South cooperation on climate and greening BRI**
 - ✓ Announce to build the S-S Cooperation Fund on Climate in 2014
 - ✓ Establish the BRI International Alliance on Green Development during the 2nd BRI Summit (2019)
 - ✓ Help BRI partner countries to realize their **SDGs and NDC pledges** under the Paris Agreement, through technology, financing, and sharing best practices in dealing with climate change
 - ✓ Promote the principle/benchmark of green and low carbon standards for investments and projects in BRI countries
 - ✓ Play the roles of non-state actors, including to launch the Global Climate Action Initiative (**GCAI**) in 2018, *Co-chaired by XIE Zhenhua and Michael Bloomberg*

气候务实合作创新：能源转型和气候韧性发展

Priorities & Approaches of Practical Cooperation Innovation on Climate: Energy Transition and Climate-Resilient Development

● Prioritized area

- **Green stimulus**: integrate green standard into short-term economic recovery, green infrastructure, etc.
- **NDC update**: extend the scope and more flexibilities, including NBS, non-CO₂, ETS/CO₂ pricing, etc.
- **Clean energy**: infrastructure for high ratio of renewables, tech ecosystem including clean hydrogen and fuel cell, next generation of nuke, CCUS, etc.
- **Green financing**: a package of info disclosure, green standards, long-term planning and better governance for multiple funds
- Low-carbon transition and development planning and toolkit
- **Co-benefits**: including conventional pollutants control, biodiversity conservation, circular economy, **digital tech**, etc.
- **Regional climate cooperation** on NBS and GGVC: regional mangrove conservation cooperation, climate-friendly commodity trading, urban sustainable / low-carbon transition platform, etc.
- **Capacity building and development**
- **Reform of global climate governance pattern**: learn from COVID-19 addressing

● Approach & Roadmap: bottom up and top down, and diversified

- Multilateral and bilateral mechanisms at all levels
- Informal network, solid platform or partnership, such as green transition alliance
- Project, case study, pilot, consultation and meeting, **constructive dialogue and solution-based by all stakeholders**
- Best practice sharing by working group and forum, etc.

区域气候合作：基于自然的解决方案与全球绿色价值链

Regional cooperation on climate: promote NBS and Green GVC

- **Regional Environment and Biodiversity Conservation:** like *mangrove or zero deforestation agro-products trading*
 - Integrated River Basin Management
 - Several programs in China like Shenzhen, and some pilots in Thailand and other Southeast Asia countries
 - Joint conservation programs
 - Regional Mangrove Conservation Network/Alliance initiated by Zhenhua Funds and Global Climate Action Initiation, **maybe co-funded by multiple funds in near future**
- **Greening Global Value/Supply Chain of soft commodities, for both supply and demand sides, such as zero deforestation agro-products trading** based on NDCs
 - Agro-products identify: palm oil and rubber in ASEAN countries, **soybean in Amazon area**, etc.
 - Partnership establishment: farmer, firm, e-commerce, etc.
 - Self commitment
 - Regional climate- and environment-friendly supply/value chain
 - Reduce the costs of certification by digital tech.
 - **Side event during COP26 in Glasgow next year**
- **Develop *the third-partner cooperation* with developed countries on green transition of energy and hard commodities**
 - Circular economy
 - Energy efficiency, cooling efficiency, renewables and hydrogen economy

区域低碳转型规划及政策工具

Regional Low-Carbon Transition Planning and Toolkit for Carbon Peaking and Neutrality

● Joint Research and Development since 2010

- Under the framework of China-US Eco-partnership
- Collaboration partners: CAS Institutes of Science and Development (CASISD), Center for Climate Strategies (CCS), Global Environmental Institute (GEI), Chinese Academy of Sciences' Guangzhou Institute of Energy Conservation (GIEC), and others
- The intellectual property is shared by all parties.

● Progress

- Finish the development of China's Regional Low-carbon Planning Toolkit in 2013, and revise continuously

● Main components:

- Data base and policy library: 7 sectors, 244 types of emission source, 100 items of tech and policy
- Modelling: Top-down + Bottom-up; urban land-based comprehensive transportation planning
- Institutional negotiation: stakeholder involvement
- Best practice: capacity development; scenario analysis; case study at national, provincial, city, sectoral, and industrial park levels
- Planning with green finance, prioritized bankable projects, and good governance

● Application: more than 8 provinces and cities in China, localization and recommended by ADB officials and experts

城市或省州绿色低碳可持续转型联盟及能力建设

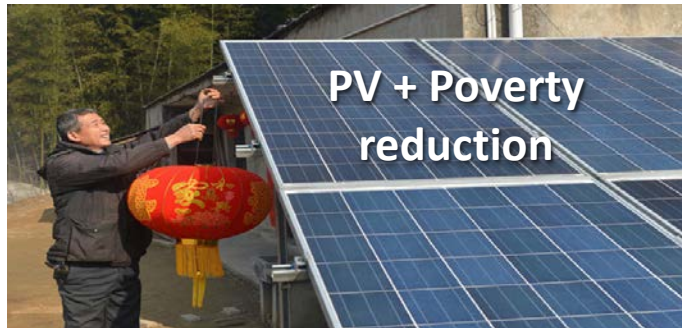
Urban or Sub-national Sustainable Transition Alliance and Capacity Building

- **Urban Sustainable (Energy/Low-carbon) Transition Alliance Initiative by GCAI**
 - Facing transitional city of developing countries
 - Mechanism: leading city and host rotation
 - In China, e.g. Shenzhen's experience and role: co-benefits for achieving the conventional pollution and Carbon emissions targets and realizing a high quality of development, electric bus; annual *Shenzhen International Low-Carbon City Forum*
- **Capacity Building for Low-Carbon Planning, Policy making, and others**
 - Training officials and climate leaders from developing countries by GCAI
 - CASISD: there were 5 training courses on the low-carbon planning toolkit to be carried out during 2013-2018. Participants included local government officials, climate change scholars, business practitioners from developing countries. More than 200 people have been trained up
 - Cooperate with other organizations for more training activities

Best Practice sharing and learning by doing:

co-development “renewables +” model (co-benefits) & new non-fossil fuel system: storage, smart grid, distributed supply system of energy, various energies’ complementation, with digital tech and supporting policies

➤ **Phase-out coal with renewables and clean hydrogen (demo coming soon)**



探索包容、合作与共赢的全球绿色转型发展之路

Explore a inclusive, collaborative, co-benefit solution to green transition and development at both national and global levels

- China and the World face **unprecedented challenge** as there is no mature experience and fixed paradigm to refer to in post-pandemic era
- The relation and diversified goals (SDGs & NDC) of the development and protection should be balanced to raise the **synergic effect and co-benefit development** in a transitional period.
- **Roadmap and updating the prioritized tasks** to a green transition and development is one process requiring continuous learning, practice, reform, and innovation (**learning by doing**)
- The sustainable transformation require taking **prioritized target, progressive policy, comprehensive measure, and systems reform** at all round, and to be jointly participated by all the stakeholders (combination of top-down and bottom-top)
- Establish the **global green transition/development partnership at all levels and in diversified ways**: reduce the costs and risks, share the best practice, realize a shared, co-benefit, low-carbon and sustainable future
- **International cooperation for pursuing a new way to achieve SDGs/NDCs/Carbon Neutrality and beyond**



中国科学院科技战略咨询研究院

Institutes of Science and Development, Chinese Academy of Sciences

谢谢关注!

Many Thanks for Your Attention!

wangyi@casisd.cn