

Finance

A meaningful assessment and clear messages on the delivery of financial obligations under UNFCCC and its Paris Agreement is the critical message that should be sent in the GST, which is to take stock of the progress achieving Paris Agreement.

1. Financial Gaps continue to exist. When the Paris Agreement was adopted, developing countries were full of expectation for developed countries to fulfill their \$100 Billion commitments, and for GCF to be well operationalized to provide substantial finance to developing countries. Based on these hopes, developing countries developed ambitious NDCs. But 14 years after the 100 billion pledges were made, 8 years after the adoption of PA, developed countries have still not fulfilled their commitment, and the size of the GCF remains close to that of the Initial Resource Mobilization at 2014, while developing countries need trillions of dollars to implement their NDCs, according to the report of the SCF.

2. Financial commitments for now and the future still hang in the air. The needs of developing countries to achieve their NDCs are evolving and around USD 5.8 to 11.5 trillion. These needs in no way could be addressed solely on developing countries' own national budgets and efforts. The Article 9 clearly states the obligation of developed countries to provide financial support to developing countries. These obligations and commitments need to be genuinely honored. Developed countries needs to show genuine good will and work with developing countries to set out the new collective quantified goal that can truly meet the needs of developing countries for implementing their NDCs by providing new, additional and adequate fundings.

Technology development and Transfer

1. Promoting and facilitating transfer of Climate technologies is the responsibility of developed country parties, but the GST Technical Dialogue summary reports and the guiding questions of the roundtable seem avoiding referring technology transfer. The Paris Agreement stated that Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions. Therefore, all our efforts shall aim at realizing this vision, rather than consider it as a Mirage or just a Utopia. **And we suggest that the progress in achieving this long-term vision on technology development and transfer shall be reviewed periodically.**

2. Current GST lacks systematic assessment on the global status on climate technology development and transfer, especially in developing countries. The examples include: (1) IEA tracks the global progress of clean energy technologies innovation which lacks a country perspective and the overall assessment of the picture in developing countries. (2) IRENA's analysis focuses on renewable energy costs and installed capacity, without considering other technologies. (3) The IPCC

AR6 WGIII reports assessed the available technologies, pointed out that mitigation options costing USD100 tCO_{2-eq-1} or less could reduce global GHG emissions by at least half of the 2019 level by 2030, which fails to consider the different circumstances, needs and challenges for developing countries who have heavy poverty eradication burdens. Developing countries will not be able to afford technologies as developed countries could. (4) The First Periodic Assessment of the effectiveness and adequacy of the support provided to the Technology Mechanism narrows on the TM mostly, rather than the global status and the gaps. **Therefore, a matrix or Global Climate Technology development and transfer Index - as the Global Innovation Index - is needed to reflect not only the Global status, but also the national progress, especially to identify needs and gaps for developing countries**, both individually and as a whole, with a view to assess how much technologies are needed to support the priorities in their NDCs.

3. The available scattered information shows that developing countries has been facing huge technological gaps and challenges in implementing their climate actions. According to TT: CLEAR website of the UNFCCC, 90 developing countries have completed a TNA with 39 countries undertaking one, resulting in more than 1000 TAPs and project ideas are not implemented due to the lack of funding. Taking Africa as an example, there are huge challenges on climate technology accessibility, as shown by IRENA's data, the total renewable energy capacity in Africa reaches about 58.78 GW in 2022, which is only about 1.74% compared to the global total capacity (3371.79 GW), although the population in Africa is about 16.7% of the world total. Besides, the First Periodic Assessment of the TM shows that the TM lacks of sufficient, sustainable and predictable funding to fulfill its mandate, especially the case for the CTCN, who facing challenges in mobilizing funds almost every year.

4. Deteriorating global technology cooperation environment is limiting the potential climate technology advancement, and we shall call for enhanced international cooperation. The cost for clean energy technologies including PV, wind, batteries, etc., have fallen continuously and rapidly in the past decade. These are because of the efforts made jointly by many countries. Take PV as an example, the joint efforts and long-lasting R&D investments made since 1950s' by US, EU, Japan, and China are the key drivers for the successful cost reduction to less than 5 US cent per kWh on average in 2022. Continuing to drive down costs of key technologies will be a deciding factor for whether the goals of the Paris Agreement are met, especially through enhanced international cooperation. However, some countries, under the name of national security considerations, have released policies, for example "critical and emerging technology list", to impose restrictions to those key technology cooperation in recent years, including renewable energy technologies, which will cast shadows on the global progress of combating climate change for certain.

Capacity-building

On Capacity-building, the message of capacity gaps and needs of developing countries should be captured in the technical assessment

1. There are **significant gaps and deficiencies of developing countries in terms of institutional**

and individual capacity, as well as in inter-agency and cross-cutting coordination.

2. Capacity of developing countries in implementing mitigation and adaptation actions is insufficient, including on GHG inventories and accounting, research and systematic observation, data collection and accessibility, vulnerability assessment, Earth System Modelling, etc. For example, 1/3 of the world's population has not been covered by the early warning (WMO, 2022). The lack of modelling capacity, systematic observation and insufficient data brought major challenges to the deployment of early warning systems.

3. Substantial support of finance, technologies, for education and public awareness, as well as on emerging subjects and areas on climate change are urgent needs.