



Joint Statement from Bangalore Climate Change Initiative – Karnataka and Partners on the Paris Climate Agreement: Implications for India and Karnataka

The world has witnessed a historic moment in Paris, where 196 countries have shown their long-term commitment to address climate change. An agreement like the one achieved at Paris is unique in how it has tried to meet the goals and aspirations of all parties.

The Bangalore Climate Change Initiative- Karnataka (BCCI-K) and its partner organisations, CSTEP and IISc, congratulate the Government of India and Conference of Parties for the Paris draft agreement. The agreement has been heralded as the most successful global agreement to enable the global community to work towards limiting warming at safe levels and assisting adaptation to adverse effects of climate change.

The implications of the Paris agreement in terms of its effectiveness in limiting warming at safe levels, and its implications for India and Karnataka in pursuing mitigation and adaptation efforts have been provided in the following statement:

The Paris agreement aspires to keep warming to below 2°C above pre-industrial levels and also mentions efforts to limit warming to even 1.5°C. Voluntary climate pledges (INDCs) from all the countries across the world are the primary mechanism seen as achieving this goal. However, it is more than clear that the voluntary pledges currently on the table are inadequate and the world could well be on a warming path of 3°C or more.

The Paris Agreement suggests that this target may be achievable with ratcheting up of efforts every five years. Starting in 2018, there would be a global assessment of whether combined efforts are sufficient or not. This mechanism will provide a chance for enhanced mitigation commitments from the countries.

Finance for mitigation and adaptation

Developed countries have been held up to the promise of \$100bn (about Rs. 6 lakh Crore) per year from 2020 onwards, from an earlier accord, with a provision to enhance this funding post 2025.

Renewed support in the agreement text for financial mechanisms (like the Global Climate Fund) indicates positive momentum despite recent operational challenges.

As per the agreement, developed countries are required to provide transparent information on support to developing countries and biennially communicate their plans for mobilisation of additional finance. Further, Article 9 of the Agreement is quite explicit in calling for financial support from developed countries that is significantly derived from public funds, which “should represent a progression beyond previous efforts”.

India’s INDC submission: India pledged to reduce the GHG intensity of its economy by more than one-third, building 40% of the power generation capacity from fossil-free sources by 2030, and, to undertake large scale tree planting and afforestation activities to sequester 2.5-3 billion tonnes of CO₂ from the atmosphere. However, these mitigation activities require large scale financing. India estimated that implementation of its climate pledges is likely to cost \$2.5 trillion over the next 15 years.



Bangalore Climate Change Initiative – Karnataka (BCCI-K)

But while the agreement recognises the importance of addressing concerns around loss and damage, it also articulates that this will not provide a basis for any liability or compensation from the developed to the developing world.

The agreement also highlights the role of domestic policies and carbon pricing for emission reduction activities. India has already initiated programmes such as a green energy cess on coal and fossil fuel subsidy reduction plans.

Technology transfer

India requires financing and support for the high upfront capital investment costs of new technologies that are usually available at monopoly prices. These prices are generally too expensive in a developing country context, given our resources and the scale of development challenges.

Article 10 of the Paris agreement re-emphasises the need for a technology mechanism for promoting and facilitating enhanced action for technology development and transfer. This, supported by financial resources from the developed world, will aim to foster innovation, “collaborative approaches to research and development”, and facilitate access to “technologies in early stages of technological cycle” for developing countries.

The Paris agreement has provisions for technology development and transfer, but these may not be adequate to ensure concessional access to modern technology to developing countries such as India. We hope that bilateral and multilateral agreements along with financial support through international climate finance will help offset the high costs of new technologies. Further, negotiations at WTO forums could push for licensing arrangements with manufacturers for short periods. This would enable opportunities for newer innovations to enter the sector and ensure that innovations are not locked out. This kind of support could help India achieve the ambitious targets set in our nationally determined contributions.

Implications for Karnataka

As a progressive state, Karnataka has a significant role to play in achieving the targets envisaged under India’s Nationally Determined Contributions. Karnataka is at an advantageous position to tap the international finance and technology transfer resulting from the global negotiations.

Mitigation Efforts: At present, Karnataka has about 4 GW of renewable-based installed capacity. This is about 32% of its total installed capacity, much higher than the 13% renewable share at national level. However, the state also has abundant wind and solar energy potential: around 14 GW wind and 10 GW solar respectively. The state has already announced solar capacity targets till 2021, and a wind policy in the pipeline. The state must also exploit the opportunities for rooftop solar and decentralised solar energy in combination with large grid connected plants. Hence, considering the proposed national INDC targets and opportunities afforded by the Paris Agreement on support for means of implementation, it can consider more ambitious RE targets.

Further, it is estimated that energy efficiency measures in the state can offset electricity generation requirement by 37 billion units by 2030, which is the same as the state’s total electricity consumption in 2010. Replacing Karnataka’s estimated 20 million plus inefficient irrigation pump-sets with efficient ones under the AgDSM scheme alone can offset almost 1 GW of generation capacity and over 5 billion units of electricity by 2030.

Adaptation Efforts: Studies prepared under BCCI-K have shown that all the major crops of Karnataka will be adversely impacted due to climate change, leading to concerns about sustained food



Bangalore Climate Change Initiative – Karnataka (BCCI-K)

production and food security. The forests of the biodiversity rich Western Ghats, which account for 55% of the total forests in Karnataka, have been shown to be highly vulnerable to climate change impacts, leading to loss of critical ecosystem services. The eastern flank of the Western Ghats, dominated by dry deciduous forests and plantations, is inherently more vulnerable. Climate change projections show that the vulnerability of the forests is further likely to increase. There are also uncertainties about water availability in the major river basins especially in the context of a warmer world and increased evapotranspiration. There is a need to initiate agricultural research to develop drought and heat tolerant crop varieties, provide agro-meteorological advisories to farmers, improve water and irrigation management and promote soil conservation measures. In forestry, corridors linking the protected areas to facilitate migration of flora and fauna, reduce forest fragmentation and degradation, conserve existing biodiversity rich forests, and promote mixed species forestry are required. Karnataka can undertake large-scale afforestation with policy and financial support as envisaged under the INDCs and the Paris Agreement.

Adoption of new and emerging technologies in Karnataka will involve high financial costs, capacity building and upgradation of physical infrastructure. There is hence a need to develop institutions and capabilities in Karnataka to leverage the Global Climate Fund finance that may become available.

Information on BCCI-K

The Bangalore Climate Change Initiative-Karnataka (BCCI-K) is a consortium of research institutions chaired by Professor B.K. Chandrashekar, comprising scientists and researchers from Bangalore-based premier institutions like the Indian Institute of Science (IISc), Center for Study of Science, Technology and Policy (CSTEP), University of Agricultural Sciences, ISEC Bangalore, IIT Delhi and London School of Economics – India Observatory, London. The consortium has produced several reports that have analysed long-term effect of climate change, assessed vulnerability and adaptive capacities in identified sectors and regions in Karnataka, modelled and developed green economy strategies across key energy sectors and developed resilience strategies for the agriculture and forestry sectors. Participating entities were also recently involved in capacity-building efforts with EMPRI and state transport departments and conducted workshops with industry and government to facilitate policy action on green economy strategies.

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