

IPCC scenarios project highly unequal future between North and South

Kuala Lumpur, 22 June (Hilary Kung) – “All the IPCC (Intergovernmental Panel on Climate Change) scenarios project a highly unequal future world that perpetuates most inequalities”, revealed **Dr. Tejal Kanitkar** from India at a side-event held on 5 June 2023, co-organized by the Third World Network (TWN) and the Plurinational State of Bolivia during the climate talks in Bonn, Germany.

The event was moderated by **Meenakshi Raman**, Head of Programmes of Third World Network, and joined by **Kanitkar**, who presented an equity assessment of global mitigation pathways in the IPCC’s Sixth Assessment Report (AR6), **Vicente Paolo Yu III**, the **G77 and China coordinator** on the global stocktake (GST) and loss and damage issues, and **Andres Mogro**, an expert on climate finance.

Kanitkar’s research cautioned over the use of IPCC’s global mitigation pathways as the benchmark for negotiations due to the highly unequal future world scenario for the global south. She said that it is critical to understand how the IPCC scenarios take into account the principles of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC) (reflected in the UNFCCC and the Paris Agreement) because all the mitigation targets, like

“reducing global carbon dioxide emissions by 45% by 2030 relative to the 2010 level” in the Glasgow Climate Pact comes from the IPCC scenarios.

She explained further that before the mitigation target number was accepted in Glasgow, the database was not made available to the public. There was only the IPCC Working Group 1 report published during COP26 in Glasgow. The database of these scenarios was finally released last year, she said, which allowed her and the team to conduct the equity assessment.

According to Kanitkar, the world (referring to the IPCC scenarios) that is projected for 2050 or 2100 is a highly unequal world with enduring levels of poverty across a major part of the global south, adding further that “This world is achieved by the suppression of incomes and development in the developing regions.”

First, in terms of per capita GDP growth, the model scenario projection perpetuated the high level of inequality between developed and developing regions in a 1.5 °C with “no or limited overshoot” world by 2050.

Kanitkar said, “Sub-Saharan Africa and South Asia bear the brunt of the suppression of income

in the 1.5 °C scenarios,” and that “the per capita consumption of goods and services are suppressed even further for developing regions and the difference between developed and developing countries is extremely stark.”

“The consumption of goods and services per person in Sub Saharan Africa is USD 1000 in 2020 and is restricted to USD 3000 in 2050, while for North America, the per capita consumption of goods and services will grow from USD 35000 in 2020 to USD 59000 in 2050”, revealed Kanitkar further.

She stressed that “This is not just a projection of inequality but a projection of enduring poverty and deprivation in a developing world for a foreseeable future.”

Second, she pointed out that the scenarios projected a “severe restriction on energy consumption” in developing regions, especially South Asia and Sub-Saharan Africa, as compared to the developed region. This is referring to the primary energy use which are coal, oil and gas, as well as renewable energy sources such as solar and wind, etc.). She stressed that both South Asia and Sub-Saharan Africa regions constitute 30% of the world’s population.

Further, she said that the “severe restriction on energy consumption” in the Global South will allow for continued higher per capita fossil fuel use in the Global North even until 2050. This is projected for a 1.5 °C scenario; even in a 2 °C scenario with more carbon budget, it would mean the same where more carbon budget will be taken up by the Global North, said Kanitkar further. In that scenario, the Global South will be left with more climate change impacts and less able to deal with losses and damages.

Elaborating further, she said that this is only possible (referring to the continued higher per capita fossil fuel use in the developed regions) when the continued emissions are to be compensated by high levels of carbon dioxide removals (through afforestation and carbon capture and storage [CCS]) in the developing regions.

In other words, she said, “The high fossil fuel

consumption in the rich countries is to be compensated by high level of removals through land-based and CCS in Latin America, Sub-Saharan Africa, South Asia and the rest of Asia. Latin America and Sub-Saharan Africa will reach net zero much earlier than most other regions. In some scenarios, North America and Europe were allowed to reach net zero even beyond 2050,” adding further that, “All the 21 models gave the same results as they are all using the same assumptions and same structures with only minor differences.”

“This will have severe implications for food security,” warned Kanitkar further.

As she explained, “Today, we have an overall long-term global trend where the risk of hunger and food insecurity is reducing but these trends are reversed under these mitigation scenarios, largely due to over-reliance on land-based removals.... A huge focus on energy crops result in competition for land and thereby increase food prices. There will be suppression of food demand in Sub-Saharan and South Asia and other regions as well, resulting from these scenarios.... While some would suggest that this can be managed through food aid (which will increase dependency on developed countries), or through agriculture subsidies, these are the measures opposed by developing countries in other forums,” said Kanitkar.

As to who produced these scenarios, Kanitkar revealed that, “A large bulk of the scenarios (over 90%) comes from developed countries and these models are based in developed countries.”

On why the Integrated Assessment Models project these unequal outcomes, she explained that “the problem can be attributed to the model assumptions and also the model structure or framework. For example, the structure of the models themselves explicitly disallows an equalization of income across the regions and the assumptions are based on cost minimization where it will be cheaper to achieve mitigation by keeping a large part of the world poor as compared to reducing oil and gas use in the richer countries”, said Kanitkar further.

In summary, Kanitkar’s presentation showed that the projected future in 2050 is an unequal world that perpetuates or aggravates the inequalities of

today. In particular, the continued use of fossil fuels in developed countries is to be compensated by the carbon sinks in developing countries. She concluded by saying, "There is a weak disclaimer in the IPCC Summary for Policymakers that there are no explicit assumptions of equity, and there is a contravention of equity and CBDR-RC principle."

Vicente Paolo Yu III, taking off from Kanitkar's presentation said "What Tejal has put forward is at the core of what the G77 has been raising from the beginning in the context of the GST, and equity is the key basis on how we would undertake the collective assessment (of progress in meeting the Paris Agreement's goals)," adding further that equity is reflected in Article 14 of the Paris Agreement and the modality of the GST.

Commenting further, he said that "...Chapter 6 of the IPCC's Working Group 3 report (of AR6) provides the underlying assumptions and many of these assumptions imply a great deal of inequality going forward...the assumptions of technology availability and what kind of technology is needed, including of bioenergy carbon capture and storage (BECCS) which, will have implications on land and agriculture."

On the GST process, he remarked that "Equity seems to be not very well reflected in the written output of the Technical Expert Dialogue, and the focus has been largely on mitigation". He added further that the current push in Bonn for a mitigation-oriented agenda item, the discussions around the global goal on adaptation, and the new collective quantified goal (NCQG) on finance will have a role to play on what Parties agree on the GST outcome in Dubai later this year.

He also added that while finance is a key part as an enabler of ambition, the same too goes for technology transfer; however, the Periodic Assessment Report on the Technology Mechanism shows that technology transfer is not happening. He said, from the developed countries' perspective, technology transfer is about trade; it is about where the new market is. However, he pointed out that Article 4.5 of the Convention stated clearly the obligation of developed countries to promote, facilitate and finance, not just the transfer of technology, but also the transfer of know-how; while the second part of Article 4.5 called for

developed countries to support the development and enhancement of endogenous capacities and technologies of developing countries. Since UNFCCC came into force in 1994, 80% of climate technologies are patented in developed countries and two-thirds of the global trade of climate-related technology goods are produced in developed countries, traded among developed countries and innovated in developed countries, said Paolo Yu further.

All in all, he said this tells that technology transfer is not happening. Further, more than 90 developing countries have produced 450 technology-needs assessment reports since 2001 up to present and they have put together more than a thousand technology action plans which listed the technologies that the countries need in order to enhance their climate actions but almost none of these plans are funded, said Paolo Yu further.

Andres Mogro dived deeper into the topic of 'climate finance' and explained why we cannot talk about mitigation without climate finance. He started by describing that the "finance track" has moved backward or in the wrong direction and outlined 3 things that would determine the success of any multilateral process: (1) universal participation, (2) ambition, and (3) enforceability. He said, the "UNFCCC had universal participation and ambition...but it did not have enforceability and that is why we spent 20 years to get things to be fulfilled. Article 4 of the Convention provides for what everyone has to do and where finance should be coming from in Articles 4.3, 4.5, 4.7, but it lacks enforceability."

As for the Kyoto Protocol, he said, "it had ambition because it provided a top-down approach (in emissions reductions for developed countries instead of what we have in the Paris Agreement now, which is bottom-up) and had enforceability, but it did not have universal participation because the United States did not come in."

Commenting further on the Paris Agreement, Mogro said, "The Paris Agreement has universal participation and is enforceable but is with no ambition. Everyone is participating and there is a strong political push for everyone to ratify the PA but we have to decide what our commitments are and then we have to report them."

He highlighted that the Article 3 of Paris Agreement requires countries to report on mitigation, adaptation, finance, technology and capacity building in their nationally determined contributions (NDCs) but now what is being talked about in all negotiations is about ambition, support and transparency. “Ambition means more mitigation actions and support means capacity building and perhaps some level of finance for setting up project goals and for monitoring purposes,” he elaborated further.

He also spoke about the operating entities of the Financial Mechanism of the UNFCCC and the Paris Agreement, including the Green Climate Funds (GCF), Global Environment Facility (GEF), and the Adaptation Fund (AF), that were set up to help channel finance from developed to developing countries, but the question now is how are these connected to the replenishment of these funds.

“Today, we are talking about donor countries instead of providers, that’s why we are moving in

the wrong direction,” said Mogro

He also highlighted the importance of quality climate finance, not just quantity. Quality climate finance means avoiding debt and should not have caused indebtedness to developing countries. On the Loss and Damage Fund (LDF), he said it will need to be closely watched to make sure it has a stable source with a replenishment process (predictable sources of funding) and capacity to respond in appropriate time to losses and damages in a practical way.

*You may access the recording of the side event [here](#).

* Dr. Tejal Kanitkar’s Equity assessment of Global Mitigation Pathways in the IPCC Sixth Assessment Report is [here](#) or the briefing paper is [here](#).