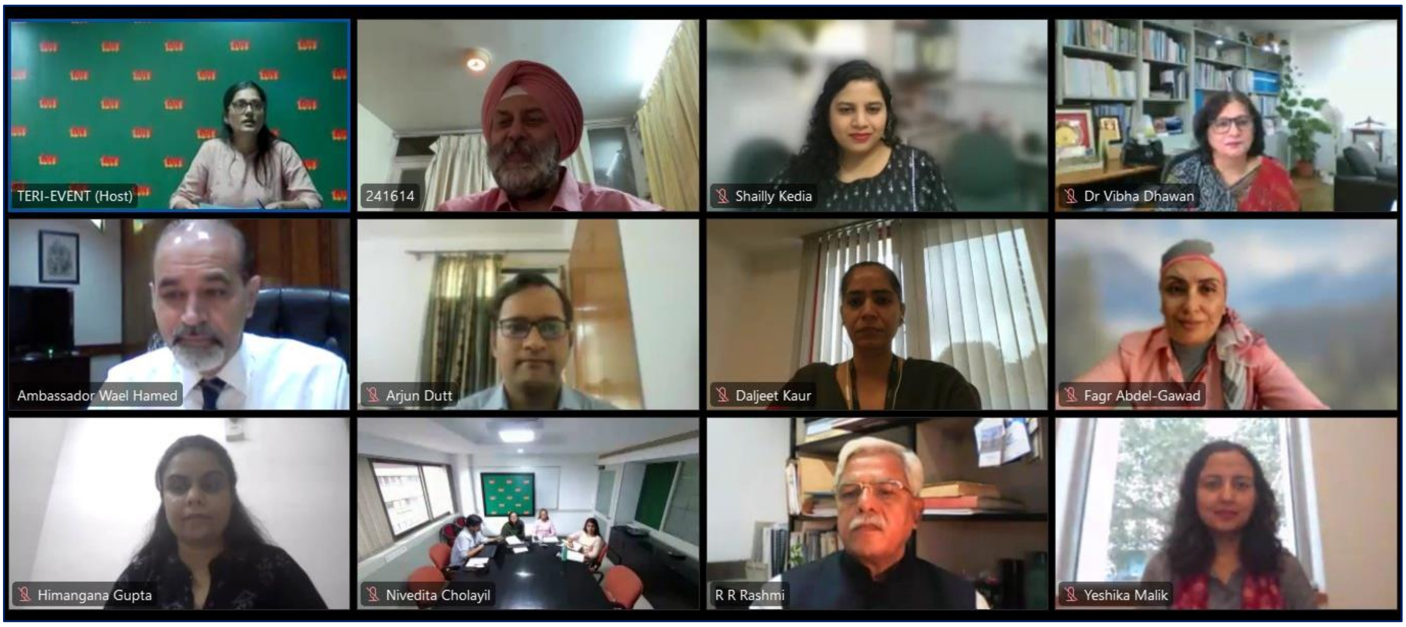

Virtual Dialogue on COP27 Climate Negotiations: Road to Sharm El-Sheikh

Date: 15th September 2022

Time: 2:00 p.m.–4:30 p.m. IST

EVENT PROCEEDINGS

ABOUT

WORLD SUSTAINABLE DEVELOPMENT SUMMIT

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making ‘sustainable development’ a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world’s most enlightened leaders and thinkers on a single platform. Over the years, the Summit series has witnessed the participation of 54 Heads of State and Government, 103 Ministers, 13 Nobel Laureates, 1888 Business Leaders, 2745 Speakers, and 38,280 Delegates.

ACT4EARTH

Act4Earth initiative was launched at the valedictory session of WSDS 2022. Building on the discussions of WSDS, this initiative seeks to continuously engage with stakeholders through research and dialogue. Act4Earth initiative has two components: COP Compass and SDG Charter. The COP Compass will seek to inspire and mobilize leadership at all levels for inclusive transitions through ambitious and informed policies and measures, which will enable paradigm shifts towards meeting the United Nations Framework Convention on Climate Change (UNFCCC) and Paris goals through mitigation, adaptation and means of implementation. SDG Charter will seek to identify gaps and suggest ways for strengthening and mainstreaming sustainable in policy agendas for enhanced environmental, social, and economic outcomes.

Suggested Citation

The Energy and Resources Institute (2022), Virtual Dialogue on COP27 Climate Negotiations: Road to Sharm El-Sheikh [Discussion Summary], Act4Earth and World Sustainable Development Summit, New Delhi: The Energy and Resources Institute.

Disclaimer

The event summary is based on auto-generated transcript. Some edits were made on grammar and spelling. The discussion can be accessed from YouTube: https://youtu.be/jFi3VMm7xDU

THE DIALOGUE

This policy dialogue was held under COP27 Compass as a part of TERI's Act4Earth initiative, which seeks to continuously engage with stakeholders from public and private spheres of life with agendas for global, regional, national, sub-national, and organizational levels. For nearly three decades, almost every country has met under the UNFCCC umbrella for the Conference of the Parties (COPs). With the efforts of the international scientific organizations and bodies, including the Intergovernmental Panel on Climate Change (IPCC), climate change has gone from being a fringe issue to a global priority. Through COP27 Compass, the research team seeks to bring forward issues pertinent to Global South, which are also of utmost importance with respect to upcoming COP. The dialogue focused on four themes: Global Goal on Adaptation, Loss and Damage, Climate Finance, and the Global Stocktake.

SPEAKER LINE-UP

Welcome Address

- Dr Vibha Dhawan, Director General, The Energy and Resources Institute (TERI)

COP27 Presidency Perspective

- Chair: Ambassador Manjeev Puri, Distinguished Fellow, The Energy and Resources Institute
- HE Ambassador Wael Hamed, Ambassador of Egypt to India

Policy Perspectives

- Mr Abhishek Acharya, Director, Ministry of Finance, Government of India

Panel discussion

Chairs

- Mr R R Rashmi, Distinguished Fellow, The Energy and Resources Institute
- Prof. Fagr Abdel-Gawad, Deputy Director, The Centre of Excellence for Research and Applied Studies on Climate Change and Sustainable Development at the National Research Centre (C3SD-NRC)

Panelists

- Dr Tarek Temraz, Professor, Suez Canal University
- Ms Daljeet Kaur, Climate and Environment Adviser, Foreign, Commonwealth and Development Office (FCDO), India
- Dr Koko Warner, United Nations Climate Secretariat, UNFCCC
- Dr Jyoti Parikh, Executive Director, Integrated Research and Action for Development
- Ms Yeshika Malik, Climate Change Specialist, The World Bank, India
- Mr Arjun Dutt, Programme Lead, Centre for Energy Finance, CEEW
- Dr Himangana Gupta, Manager, Sustainable Landscapes and Restoration Program, World Resources Institute India
- Prof. Anand Patwardhan, School of Public Policy, University of Maryland
- Closing Remarks
- Dr Shailly Kedia, Senior Fellow, The Energy and Resources Institute

ACTIONABLE MESSAGES

Message 1: The New Collective Quantified Goal (NCQG) is starting from 2025, and currently in the process of discussion, therefore, it must be based on the needs and requirements of the developing countries.

Message 2: The evolving mechanisms of the New Collective Goal and the climate finance goals should be based upon a changing mechanism, which should consider the changing parameters of the needs and requirements of developing country parties.

Message 3: The Global South is relaying on nature-based solution, which is not only a tool to rehabilitate or to alleviate or to capture the excess of CO2, but it is also a tool of revenue generation for the local community.

Message 4: There is a need to follow a two-way process, which is a feedback process understanding the local needs that feed into the GGA methodology and unpack how GGA itself can inform and direct actions and funding to make countries more resilient. An important aspect is also to empower local communities to develop their own goals for the global community to listen to them, the goals on adaptation needs to be bottom-up and validated by the vulnerable communities.

Message 5: There is a request by a major group of parties that would like an agenda item to be considered. The incoming COP presidency is very attuned to party needs and wishes, and the incoming COP presidency along with the current COP presidency have been doing consultations all throughout the year to hear more about party wishes about loss and damage. In a letter, the G77 and China have written that they would be interested in seeing a loss and damage agenda item.

Message 6: Identifying scalable climate finance instruments such as green credits, sub-national, climate funds to mobilize a greater climate finance and devise mechanisms to incentivize conservation, restoration, regeneration of degraded natural resources and other adaptation actions, is the need of the hour. This can be done through innovative green crediting mechanism, which widens the focus from only carbon-based credits.

Message 7: Getting financial regulation to create conditions for private sector to invest in climate-related activities and particularly adaptation.

Message 8: A smarter use of this public capital through catalytic blended finance instruments that can mobilize many multiples; in terms of private sector investments, it is necessary to make sure that each dollar that is being employed towards climate finance is doing a lot more in terms of mobilizing private sector capital. Limits of such instruments in the context of adaptation must be recognized.

Message 9: There is a need to be careful that what comes as a loss and damage finance should not actually be adaptation finance.

Message 10: An important outcome of COP27 could be that the global community commits to securing basic universal enablers of resilience, big no regret solutions that would enable adaptation resilience at all scales, for example, universal access to early warning systems is a key enabler and for this goal the UN Secretary General has already called on the WMO to develop a Five-Year Plan.

MAKING WORDS COUNT

"As we look forward to the equitable outcomes from COP27, it is important to bring forward issues from the Global South. The dialogue today aims to present and deliberate on four key themes pertaining to COP27: Global Goal on Adaptation, climate finance, loss and damage, and the global stocktake.

Dr Vibha Dhawan
Director General, The Energy and Resources Institute (TERI)

"Individuals matter and leadership matters. The linkages between greenhouse gases, use of energy, GDP and where countries stand at the global power play has certainly made climate change one of the most important strategic negotiations undertaken by the whole globe together.

Ambassador Manjeev Puri
Distinguished Fellow, The Energy and Resources Institute

"It is our duty from today to come together and give the world a strong wake-up call not only with policymakers but also with other developing countries.

HE Ambassador Wael Hamed,
Ambassador of Egypt to India

"Finance is one of the most if not the most important pillar in the entire climate change architecture. The 100-billion-dollar goal has nowhere been met by the developed parties.

Mr Abhishek Acharya
Director, Ministry of Finance, Government of India

"The actual implementation of mitigation and adaptation measures are conditional on the provision of adequate, appropriate international finance through highly concessional conceptual finance and grants as appropriate.

Dr Amr Abdelaziz Fattah Ali
Director, Climate Change Department, Ministry of Environment - Egypt

"Adaptation is one issue which strongly resonates with the issue of equity across the globe. It is very important to see those who are critically affected by climate change to suitably come up with a compensation mechanism or a funding mechanism for them.

Mr R R Rashmi
Distinguished Fellow, The Energy and Resources Institute

"There is a need to follow a two-way process which is a feedback process understanding the local needs that feed into the GGA methodology and also unpack how GGA itself can inform and direct actions and funding to make countries more resilient.

Ms Daljeet Kaur
Climate and Environment Adviser, Foreign, Commonwealth and Development Office, India

"Today loss and damage are not only connected to extreme heat events but can also result in biodiversity loss which takes a long time to happen.

Dr Tarek Temraz
Professor, Suez Canal University

"Adaptation does not have the revenue stream like that of mitigation. Because of the scale mitigation has been relatively cheaper.

Dr Jyoti Parikh
Executive Director, Integrated Research and Action for Development

"More than 80% of the financing needs will have to come from the private sector. India needs to deploy stronger financing and technical capacities for the design and implementation for these projects particularly at the local level.

Ms Yeshika Malik
Climate Change Specialist, The World Bank, India

"We need mechanisms that maximize the utilization of each dollar of public capital that is used to capitalize adaptation of climate finance instruments should mobilize many multiples in terms of private sector investments.

Mr Arjun Dutt
Programme Lead, Centre for Energy Finance, CEEW

“	We could look forward during COP27 that at least loss and damage comes to the agenda, and countries at least are able to negotiate in a positive manner. **Dr Himangana Gupta** Manager, Sustainable Landscapes and Restoration Program, World Resources Institute India
“	We need to recognize for all its vagueness and imprecision, we do have a Global Goal on Adaptation. This imprecision is a blessing in disguise because it allows countries the flexibility to operationalize and apply ways that are best suited to their context and needs. **Prof. Anand Patwardhan** School of Public Policy, University of Maryland
“	Post 2025, you will hear about capacity, technology, finance for loss and damage. **Dr Koko Warner** United Nations Climate Secretariat, UNFCCC
“	The global stocktake is to be finalized in the next COP in UAE at the COP28. It must be rooted in the principles of equity and CBDR. **Dr Shailly Kedia** Senior Fellow, The Energy and Resources Institute

Dr Vibha Dhawan, Director General, TERI

(Dr Dhawan welcomed all the delegates to the virtual dialogue of COP27 climate negotiations.)

At the onset I would like to thank Embassy of Egypt New Delhi and the Center of Excellence for Research and Applied Studies on Climate Change and Sustainable Development at the National Research Center in Egypt. Dr Dhawan especially thanked the Ambassador of Egypt, both for visiting TERI and thoroughly understanding the organization and extending all possible help to us. I will also like to put on record many thanks to our partners, that is, Bloomberg Philanthropies, the Rockefeller Foundation, German Federal Ministry for the Environment Nature Conservation, Nuclear Safety and Consumer Protection and Tata Cleantech Capital Ltd. for their support. The session is being organized as part of the COP27 Compass of Act4Earth initiative which was launched at the valedictory session of the World Sustainable Development Summit (WSDS) in February this year. Under this initiative, TERI is engaging in research activities which will systematically seek to identify and analyses good practices that can be taken up by the governments for climate action and achieve the Sustainable Development Goals. As part of Act4Earth the COP27 Compass seeks to bring forward issues pertaining to Global South, which are also of utmost importance with respect to upcoming UNFCCC COP27. With the upcoming COP27 to be held in Egypt, it becomes important to bring forward issues pertaining to Global South, which are extremely important when we look at the equitable outcomes coming from COP27. The dialogue today will aim to present and deliberate on four key themes pertaining to COP27 and beyond: global goal on adaptation, climate finance, loss and damage, and global stocktake. We will soon hear on the perspectives from the COP27 presidency from HE Ambassador Hamed, Ambassador of Egypt to India. The discussions today will feed into a policy brief, which will be launched during COP27.

Ambassador Manjeev Puri, Distinguished Fellow, TERI

(Ambassador Puri thanked Dr Dhawan and TERI. He then began his interventions, address the Ambassadors of Egypt.)

Your Excellency, we would very much look forward to hearing you and your colleagues on the Egyptian ideas for COP. My colleagues have already mentioned the ideas which are on agenda today—the global goal for adaptation, the issue of climate finance, the global stocktake, and loss and damage.

H.E. Ambassador Wael Hamed, Ambassador of Egypt to India

Let me start by saying that Egypt is hosting COP27 this year in a very complicated political and economic international scene. The current global energy and food crisis cause enormous suffering to many developing countries particularly with the poor flow of funds and supply chain disruption. This places extreme responsibilities and very heavy responsibilities on our shoulders to ensure that these difficulties will not impact the pace of implementation of our common vision to address climate change, which was reflected in the Paris Agreement and confirmed last year in Glasgow. Here it is clear that there is a strong linkage between the issues of climate change and the issues of development and finance. As a matter of fact if we really think about it, we will find that the real problem here is how we are going, no matter how many initiatives we will come up with, no matter how many projects we will be able to agree on our mission is not going to be successful unless we are able to summon and mobilize sufficient funding for these projects and particularly from donor countries and developed countries that have the ability to play a constructive role.

I remember it was agreed in 2015 that the developed countries are going to contribute up to 100 billion US dollars by the year 2020. And really this is a yearly number and until now we have in the best estimates reached something like 80%. Some other estimates say that we only have reached 20% or maybe a little bit higher than that; under any circumstances we have not reached sufficient funding to put all our plans and all our projects to implement them. To see them starting to gain momentum and have a shift, I think this is one of the main things that was going to be tackled in COP27. What we have seen over the past year, especially since the beginning of this year is that no one is immune from environmental change, climate change, and environmental degradation. We have seen extreme weather conditions across the globe, we have seen droughts in some places, and we have seen floods in some other places, we have seen extreme cold in some areas, and we have seen extreme heat in some other areas. Hence, it is not surprising that we will find that many countries that thought of themselves as immune from this kind of phenomena are starting to feel that they are bitten by these problems to a degree that they have never expected and never anticipated before. So, at the end of the day we are all on the same boat together. However, there are suffering, and I am afraid that if, as international community, we do not come together and really put our hands together and start doing something through next 10–15 years from now our kids are going to be the ones who would be suffering. It is our duty from today to put our hands together to give the world a strong wake-up call. Let us work together and do something, otherwise if we wake up years from now it will be too late. This is the time that we sit together and start making progress on these issues with the help of not only of our policymakers, but also have other developing countries that have to contribute to this because they are not immune. As I said before, the scientific part of environmental change has been proven, now the economic part is what needs to be worked upon by countries and it is necessary that all parties attend together.

I was personally extremely happy to visit TERI just 10 days ago. Under the guidance of Dr Vibha Dhawan, I have seen what TERI can contribute to the issue of environmental change. I have seen the projects and I have seen a lot of efforts that are being put in place for India to be able to help with climate change. One of the issues that was particularly interesting to me, and I spoke to Dr Dhawan about this is the idea of having a centre of excellence. This is something that I think is going to be extremely important with the increasing relevance of green hydrogen as a renewable and sustainable form of energy. I think this is something that is going to be extremely important especially because Egypt over the past two or three months has already signed a memorandum of understanding with Indian companies to have their own green hydrogen projects in Egypt. I think this is one of the habits that we can put our hands together in and that we can look forward on the path of realizing these two projects, but we are also still looking forward to more engagement between Egypt and India. When it comes to the field of green hydrogen and renewable energy, which has become increasingly important to Egypt, India has a lot to give. Let me assure you that I am very happy that we will be in contact. I do remember that TERI was one of the first institutes that I dealt with when upon my arrival here in India last year and I will be looking forward to more engagements. I wish you all success in this video conference; thank you very much and I really appreciate your efforts.

Ambassador Manjeev Puri, Distinguished Fellow, TERI

Your Excellency, thank you very much. You started off by saying that you are not an expert but thank you for this expert exposition. You touched on everything important—collaboration, money, economy, and the fact that everybody needs to realize that climate change is there today for them not just for the others. In India, recent floods in Bengaluru have had some of the rich and mighty of this country having to sit in boats and ply through the ground floors of their multi-million-dollar houses. These are the realities of life. I am very glad your Excellency that you have highlighted all of this. We and TERI look forward to a continued collaboration with the Egyptian side with your Embassy and counterparts and colleagues. They were truly encompassing and important for us. Your Excellency let me take you on and stick to the area from where you and I come—the diplomatic side of things.

Mr Abhishek Acharya, Director, Ministry of Finance, Government of India

As mentioned by the Ambassador, finance is one of the most important pillars, in the entire climate change architecture. In the past few COPs, you have seen that the commitments by the developed country parties towards their financial obligation—be it the provision, the mobilization, the flow— all the three aspects have fallen short of their commitments. Talking about the 100-billion-dollar per year goal we have seen from the biennial assessment reports and from numerous other assessments that the 100-billion-dollar goal has nowhere been met by the developed country parties. The second aspect that comes is the New Collective Quantified Goals under the Paris Agreement; basically, what we need to emphasize is that the principles of equity and common but differentiated responsibilities and respective capacities must be ensured as these are the two cardinal pillar points of the UNFCCC.

In this regard, I would like to mention that the financial obligations of the developed country parties through the New Collective Goals should be based upon four points. What are the quantitative points, the qualitative, the temporal, and the evolving mechanism on the quantitative aspect? We have seen from the need's determination report or by the standing committee on finance, which was presented in the last COP as well, that the need by the developing country parties for their climate action is enormous and it runs into trillions. To give the very basic example of India's first NDC (just before the NDC has been updated), India's NDCs needed 2.5 trillion dollars to actualize the climate commitments that we have considered. Therefore, the climate actions that the developing countries need to actualize is contingent upon the financial mobilization provision and flow commitments met by the developed country parties.

Second aspect that I have mentioned is the qualitative aspect which means that the financial mobilization and provision must be based on a concessional finance; be it grant or be it hugely concessional loans. Because the entire regime, if we follow the Article 4.3 of the convention, it says that the finance provided by the developed country parties must consider the full cost and incremental cost of the climate action by developed countries, therefore, it is imperative that they (the developed country parties) should provide concessional finance to the greatest extent.

Third point, is the temporal angle that I would like to mention, is how fast these things are needed to move because as of now the 100-billion-dollar goal was up to 2020 and now it has been dragged up to 2025. The New Collective Quantified Goal (NCQG) is starting from 2025 and right now we are just in the process of discussion, therefore, it must be based on the needs and requirements of the developing countries. As we have seen, the climate vagaries are increasing day by day in countries like India. We are facing the climate burdens each day, therefore, if the climate finance obligations by developed country parties through finance and technology provisions are not met, it would be a humongous task for us to maintain our developmental commitments.

Finally, I would like to talk about the evolving mechanism. The evolving mechanisms of the New Collective Goal and the climate finance goals should be based upon a changing mechanism which should take into account the changing parameters of the needs and requirements of developing country parties, because every year, every six months our climate vagaries are increasing, and the financial requirements are changing according to our needs and requirements. Therefore, these four parameters which should be the base of climate finance mobilization and provision should be adhered to. The scope, scale and speed of the climate finance provision and mobilization has to be increased by c-fold.

PRESENTATION BY STUDY TEAM

Ms Nivedita Cholayil, Research Associate, TERI

As Dr Dhawan mentioned**, Act4Earth** was launched in the WSDS 2022 valedictory session. Its objective was to drive ambitious and urgent action through two components of the COP compass **SDG Charter**. The main objective of COP Compass is to amplify perspectives from the Global South crucial for equitable climate action as we all know there is a scientific consensus that there is a need for urgent and ambitious action from all parts of the world. The developed world is expected to provide technical assistance and financial assistance to the developing world which are more vulnerable to the impacts of climate change. To give a context in terms of cumulative CO2 emissions for the G20 countries, India contributes only 3.2% while the United States, European Union, China, Germany, the United Kingdom are all before India in terms of the per capita CO2 emissions. For G20 countries, India is at the lower end of the spectrum with the world average at 4.2 tonnes per person, while India has only 1.9 tonnes per person.

We all know that the remaining carbon budget is very low and if there is 83% likelihood of limiting global warming to 1.5 degrees Celsius, we just have 7.5 years left. If we want to limit global warming to 2 degrees Celsius, then we just have 22.5 years with the remaining carbon budget. The key issues addressed in this policy brief are related to the urgency to act to achieve the Paris temperature goals, achieving the main goals of urgent climate action and equity and the urgency of international response. The way this policy brief and the policy dialogue has been structured is that we have identified key issues pertinent to Global South. These key issues are included Global Goal on Adaptation (GGA), loss and damage, climate finance, and global stocktake. We went through a review of literature and an overview of key processes and together we will come up with some of the recommendations.

Mr Soham Banerjee, Research Associate, Earth Science and Climate Change, TERI

(Focusing on New Collective Quantified Goal (NCQG) on climate finance, Soham explained that it is an ad-hoc programme which will run up to COP29 in 2024 to initiate the New Collective Goal as Mr Acharya also mentioned).

I echo the same point that there is a huge discourse which ran in Glasgow and the result which came out is that the 100 trillion target was more on the political side, and it lacked a sense of scientific coherence. Also, the need for developing nations was not incorporated and that is how this New Collective Goal concept arose. Furthermore, I think there is a huge importance to link this to the existing articles of the Paris Agreement to Article 2, Article 9, and Article 14, etc., to make it more coherent and scientific. As of now, it is also an established fact that climate finance remains disproportionately allocated towards mitigation actions, and the New Collective Goal can bridge this gap. Some of the recommendations that came out from the literature include making this programme more coherent and creating an ad hoc technical committee under the UNFCCC to investigate the nitty-gritties of the programme. Recommendations also included mandating a technical process led by the subsidiary body of the implementation to bring in a sense of rule of law and finally to establish a work programme on the new Collective Quantified goal as in similar lines which of the word program which launched in COP17 in Durban.

Long-term Finance is aimed at progressing on the mobilization and scaling of climate finance. The sources can be from a variety from available public, private, bilateral, multilateral, and alternative sources. This long-term finance concept came into focus in 2009 in Copenhagen, where developed countries promised to provide 100 billion private financial help to developing nations by the year 2020. However, this target has been failed and hence, the period has been extended to 2023, which is three years post Glasgow. India also announced several targets including the Net Zero by 2050 and Prime Minister Narendra Modi also suggested a USD 1 trillion from developed nations. There needs to be a restructuring in the organization and governance to enhance transparency. There needs to be a financially enhanced institutional capacity and lastly there needs to be transparency and deliberating and usage of private finance.

Ms Nivedita Cholayil, Research Associate, TERI

While the concept of loss and damage found mention in the UNFCCC at COP7 in Marrakesh, the concerns over the potential losses and damage from climate change impacts started in 1991. When on the behalf of Alliance of Small Island States (AOSIS) countries had submitted a proposal to the intergovernmental negotiating committee which proposed two things to set up an international fund, as well as for a separate Insurance Pool, but when the UNFCCC was set up there was no mention of either a fund or any insurance scheme. Some of the major milestones achieved for loss and damage were at COP7 where insurance-related actions were mentioned. In the decision text at COP13, the phrase 'loss and damage' found a mention for the first time. At COP19, the international mechanism was set up to fulfil the role under the Convention for addressing loss and damage. At COP25, in Madrid, the Santiago Network was launched under the Warsaw International Mechanism to step up the technical assistance. The scientific functions for the Santiago Network were further agreed upon in Glasgow at COP26 for the effective implementations of the functions of the Warsaw International Mechanism and for carrying out technical assistance from relevant organizations bodies, networks, and experts. Some of the key suggestions from the Global South for the Santiago network which came out from the proposals submitted by various country groups as well as countries from Global South are the following:

There is a need for a loss and damage needs assessment; any such assessment must be demand driven and set in context with each of the country's circumstances. This would be helpful so that the capacity can be built at the national level itself to develop policies and recommendations to anticipate any loss and damage and submit requests for assistance including for rehabilitation and recovery.

Financing loss and damage while there has been a constant ask from the Global South for funding not just for loss and damage but for other key issues as well, a separate dedicated funding channel for Santiago Network is one major ask across Global South countries.

The third issue is the Secretariat for the Santiago Network, which is the coordinating unit and will provide the administrative and infrastructure support. Countries from the Global South including the African Group for Negotiators, the Latin American countries, the Republic of Uganda, Republic of Indonesia and Bangladesh are of the view that the secretariat should be hosted within the UNFCCC to proceed to make things transparent, but most of the countries from the Global North differ in their stance wherein they are keen to support a coordinating unit, which is placed outside and independent of the UNFCCC process as they believe that an organization which is outside of universities will have more capacity and relevant network.

So, some of the recommendations that came out very clearly was that there needs to be a loss and damage assessment to fully and effectively operationalize the functions of Santiago Network. There is a need for an increased role of organizations, bodies, networks and experts (OBNESs) and these experts should come from the developing countries as well as those which are particularly vulnerable to the impacts of climate change. They should advise the coordinating body or the Secretariat in providing technical assistance and indicate the expertise available to coordinate resources required for a Santiago Network in order to ensure the smooth functioning of the network. The Secretariat must play a very active role in mobilizing and maintaining a steady flow of resources, which includes financial, technical and human resources, which must be readily available and easily accessible by those who need it the most. Lastly, putting loss and damage on the COP27 agenda, as this will prevent issues from being discussed at the sidelines and can be taken up at the highest level.

Ms Saheli Das, Associate Fellow, TERI

There are two strategies to combat climate change—mitigation and adaptation. We have the mitigation strategies in a quantifiable way, but for the adaptation strategies we do not have the goal at global level which is quantifiable. Till COP25, no such framework or no such discussion happened. When at COP26 nations came together to sign the Glasgow–Sharm el-Sheikh work programme then the discussion on the Global Goal on Adaptation began, which focuses mostly on enhancing understanding of Global Goal of Adaptation, contributing to overall progress and adaptation communication through understanding how the regions are vulnerable to climate change. Till now, two workshops under the GLASS work programme have taken place.

In the first workshop, the participants addressed several points and key characteristics on which we should focus. One is long-term orientation, responding to mostly urgent and immediate adaptation responses. Then the GGA should be context specific and be country driven and mostly focusing on the local and indigenous knowledge and also addressing the climate vulnerable groups, women and youth. Based on these key characteristics pointed in the first workshop and several countries proposed few frameworks based on context-specific decision making and also input, output and outcome-based indicators, both at qualitative and quantitative levels. Based on these recommendations we are proposing a Monitoring and Evaluating (M&E) system as a framework. Since adaptation cannot be captured in one single indicator, so we propose that an ideal M&E framework should incorporate three types of indicators:

- Input indicators: based on the activity-based responses indicator
- Output indicators: institutional readiness and climate management indicators
- Outcome indicators: impact indicators

The input indicators we are mostly focusing are on the infrastructure side of the health services, number of trained health workers or service providers to 100,000 climate vulnerable communities. The number of communities per 100,000 climate vulnerable communities that get in-hand information early on about climate change or climate extremes through early warning systems. Then number of infrastructure for promoting community-based social platforms and indigenous practices. Also, infrastructure for job training programmes is needed, so that the people in vulnerable climate regions diversify their income through the training process. We are also focusing on the nature-based solutions and also quick evacuation so that if climate extreme happens then less time should be taken and for that also we need infrastructure.

The output indicators are mostly the indicators based on mainstreaming climate adaptation into our NDCs, national adaptation plans, and development plans at local-level, national-level and also at global-level. We need to track the number of governments (national and local) that have adopted and implemented national disaster risk reduction strategies. Also, input indicators could be the climate funds released and dispersed for different infrastructure.

The outcome indicators and the impact indicators we are focusing on have the indicator for improvement of the climate vulnerable communes in terms of their health, income level, consumption level, health services, and their education level. As a social security net, we need to fund through the climate funds for the climate vulnerable regions and communes. Also, some reservation policies for women and climate vulnerable communes should be there, such as income in the workplace, public sector employment, and education. These are some sample indicators we are proposing.

Ms Shubhi Goel, Project Associate, Earth Science and Climate Change, TERI

The Global Stocktake (GST) which we thought will be an important issue to talk about and see where the recommendations can come up from developing nations. The mechanism of Global Stocktake was introduced in late December 2015 at COP21. However, it has been discussed before COP21 as well. However, there was a little delay in it being formalized, and finally we had the GST in place in the year 2018. The GST is mentioned in Article 14 of the Paris Agreement where the Global Stocktake would take the stock of Paris Agreement as implementing tool and where there will be a collective progress assessment which will aim to achieve the long-term goals that will be presented in the Paris Agreement. The key focus of the GST is to inform all the parties about updating their NDCs.

It was formalized in 2018, however, during the recent COP26 in Glasgow, the rule book came out about the global stocktake—what it is, how the people will be working, and how different countries will take part. There are different phases that were being introduced in the rule book, and countries have already started working on these phases. In 2022, countries are already working on phase one and phase two and in the subsequent year in 2023 the new phases will be introduced.

Firstly, the information collection and preparation stage come up in phase one; where all developed countries have to make some efforts to help developing nations and support them technically as well as transfer some finance to support them. The first phase also considers ways to enhance the transparency framework. The second phase also talks about technical assessment. In phase one, when we are collecting the information and preparing for that, technical assessment should be undertaken through which the efforts put in by the developing countries should be put forward. How much effectiveness should be there when they talk about adaptation, the support they need in terms of finance, to reach their goals mentioned above.

Lastly, the phase 3 will be starting subsequently in 2023, which talks about the consideration of outputs. While the information is collected and technical assessment is being done, the Parties will be informed for updating their NDCs. Also, how each of these parties can enhance their international cooperation, hence the global stocktake will be a key to have the globe successively participating for international cooperation and taking good assistance from developed countries.

We look forward into some research articles which talk about few recommendations and new proposal that we should look forward to. These are the ones that we would like to represent:

The need of regulatory change because as we all know about the principle of equity, principle of common but differentiated responsibility, and respective responsibility. There is a responsibility from developed nation that should come up, when we talk about five-year plan and evaluating each of these stock that might be difficult for long-term goals, that we talk about for developing nations because developing nations like India are not well equipped with the assistance. They are not able to do research because of issues in not having finance and it becomes difficult to do this evaluation in this small period when we talk about our long-term goals. The other regulatory change that needs to be updated is about the rule book, so the calculation of stock that how it should be done is not clarified; this needs to be done as quickly as possible.

The second recommendation is provisions of enabling conditions. This mentions the provision of finance, which can be calculated when we talk about global structure, and how that should be ideally represented because the global topic aim is to have a provision on finance consistency for climate options so that must be clear.

Lastly, the international cooperation, the positivity in international cooperation in terms of finance, technical assistance, bilateral, multilateral, cooperation, etc. These are some of the issues that we would want to raise in our policy brief.

Dr Amr Abdelaziz Fattah Ali, Director, Climate Change Department, Ministry of Environment – Egypt

(Dr Ali made a presentation of Egypt's Nationally Determined Contributions (NDCs) 2023)

Egypt submitted its Intended Nationally Determined Contribution (INDC) in November 2015 to achieve the global targets settled out in the UNFCCC's Paris Agreement. Egypt signed the Paris Agreement in April 2016 and ratified it in June 2017. The INDC was considered Egypt's first NDC; this document presents an update to Egypt's first NDC covering the period between 2015 and 2030. Egypt updated NDCs in alignment with Egypt's developmental and climate change strategies. Egypt's updated NDCs contain a national context revision that highlights action taken to implement the NDCs since 2015. Egypt's 2030 mitigation target in all the targeted sectors, contribution to climate change adaptation, means of implementation and MRV and finally the annexes. The action taken to implement the first NDC since 2015, Egypt faced a multitude of development challenges that were further increased by the negative impacts of climate change and associated with a strain on the national budget as well as the need to address the economic impacts of the COVID-19 pandemic. Nevertheless, Egypt was still able to implement a wide range of climate policies and projects, which are highlighted in this document.

As a result, it reflects Egypt's ambitious contribution to global efforts, despite the negligible contribution of Egypt's share, which is around 0.6% of the global emission. The activities include energy efficiency reforms, renewable energy, energy efficiency in the electricity sector, energy efficiency and low carbon fuel in the petroleum sector, energy efficiency on the demand side, low carbon transport, solid waste management, green finance, climate adaptation actions. On the mitigation side, actions to 2030, it is the electricity generation transmission and the distribution sector with a reduction target of around 70 Megatonnes CO2 equivalent, which represents a 33% decrease from the business-as-usual scenario. Install additional renewable energy generation capacity to reach the electricity power contribution target of 42% by 2035, and renewable energy capacity of 40% by 2030. This includes a replacement of coal scenarios and inefficient thermal power plants, transforming to smart grid and expansion of regional electricity interconnections, improving the energy efficiency of electricity generation plants, activation of the rule of electricity distribution companies and energy efficiency and promotion of decentralized renewable energy system for subscribers, improve and update the transmission and distribution network in the oil and gas sector. The quantitative target recovered, and utilization of a syngas generated from cured oil fields, access to clean fuel natural gas in a household, low-cost energy efficiency measures in petroleum companies, manufacture of biodegradable plastic bags, and convert black plastic waste into oil as an intermediary product to produce polyethylene, produce medium density wood panels, MDF from rice, extraction of algae oil from use in the production of biofuel, and generation of bioethanol. Transport sector with a reduction target of around 9 Megatonne CO2 equivalent which represents 7% decrease from the business-as-usual scenario.

The activity in the transport sector includes the expansion in Cairo metro network, development of Alexandria metro, and rehabilitation of the Raml tram line, operation of new capital monorail, six October monorail, light rail transit (LRT), electric trains, and rapid electric trains. A transformation of public buses and to operate on a lower carbon incentive fuel and bus rapid transit (BRT) system, implement the national route projects, greening of the civil aviation sector. Other sectors learn quantitative target policies and measures, industry sector implements measures in the low carbon roadmap for the Egyptian cement industry, enhances electrical and thermal energy efficiency in other resources, in intensive sectors and SMEs, motor system optimization programme has been initiated to replace all inefficient motors with IE3 or higher motors. Apply sector-specific process improvements such as the transformation of the charcoal sector from traditional or open bits into mechanized kilns. Ec0-industrial parks concepts to scale-up resources efficiency through intra firm exchanges and improvement of economic, environmental, and social performance of business and creation of green industry. Building urban cities, promote the use of renewable energy in existing and the new establishments, expand on energy-efficiency label and specification of appliance, programmes and elimination of non-energy efficient equipment. Promote green buildings by activating the energy efficiency codes, adopting voluntary green buildings guidelines and roll- out incentives to encourage the use of best available technologies for sustainable buildings. Increase green spaces and sustainable parks in new cities that are irrigated with treated wastewater, adopt the national active mobility strategy to encourage citizens to use bio-skill, shift gradually to electric vehicles, and establishment of necessary infrastructure inside cities and install energy efficiency and/or solar operated street lighting.

In the context of the adaptation actions to 2030, the first wastewater and irrigation rehabilitation of 2000 km of irrigation canals for agriculture, climate resilience, the beneficiary will be about 60 million people. Renewable waste desalination of about 4 million, daily beneficiary will be about 33 million people. In the agriculture sector, through adaptation of crop production in the Nile Valley and Delta, the beneficiaries will be about 10 million. Motorizing farm practice for climate resilience, beneficiaries will be about 1.75 million people. Crop yield increases from 10 to 15%, coastal zone adaptation of the northern delta affected by sea level rise, beneficiaries will be about 10 million people. Natural protection of Rosetta shoreline using the sand motor, beneficiaries will be 4.25 million people. Irrigation of coastal protection in three Egyptian Mediterranean cities, beneficiaries will be about 6 million people. Urban Development and Tourism protectorates to cover 17% of the national marine and a wildlife area, sustainable parks in new cities from 5 to 20 feddans. Finally, the means of implementation, the support needed for mitigation efforts is about 196 billion US dollars and adaptation efforts need around 50 billion US dollars, with the total financial support needed of 246 billion US dollars. This NDC update is Egypt's pledge for climate action up to 2030. Depending on the international financial support ensure that transition is appropriate to national capabilities under the umbrella of sustainable development. The actual implementation of this mitigation and adaptation measures are conditional on the provision of adequate, appropriate international finance through highly concessional conceptual finance and grants as appropriate.

PANEL DISCUSSION

Dr Tarek Temraz, Professor, Suez Canal University

(Dr Temraz began his discussion by explaining what loss and damage means from our perspective of a university professor.)

It is like a dilemma when we must identify, first what we mean by is a definition, because we know there is a difference between loss and difference between damage. Damage to the assets and infrastructure, while loss itself is connected to various meaningful words. This was the debate before the involvement of loss and damage in COP13 in Bali, to be enrolled and then reaching to the Warsaw International Mechanism (WIM). So, we have to identify how the global North can cooperate with global South, without leaning on or using any word that may be used in future litigation and this is actually the problem. The Global North identifies a current situation and the impact which we all can see on different perspective, on different countries from South Africa, northward to Germany, and from America in the west, even to China and India in the East, so it is all hitting everywhere, but to identify this all the international cooperation went through various steps. From Warsaw Mechanism to the Santiago Network for loss and damage, and then all the way to Glasgow. All of this resulted in a need to identify the definitions; there is a need to identify a financial mechanism, to support all of this and to rely on information which comes from real scientific research to quantify all the loss and damage. Nowadays, losses and damage are not connected only to extreme heat event, but it can also result in biodiversity loss, which takes a long time to happen. Currently, we are facing what is happening now in Sri Lanka, as one of the countries that adopt a broader goal that needs a lot of support financially to achieve it and result in miscalculation, which results in food risk, that result in instability on the political event.

Loss and damage can be seen not only in terms of facing extreme heat event, but also in terms of facing the impact on food security and normal crops. Both India and Egypt are highly ranked among the most vulnerable countries. Egypt is ranked 107 and India is ranked 111—both India and Egypt have a low emission compared to the developed Global North. We still have emissions, but not the same magnitude as the Global North and we are receiving huge impacts from climate change that result in loss and damage in our countries. We nearly have the same situation with common understanding, and common cooperation. From my perspective as an academic, after attending the last COP in Glasgow, I found that the role of non-governmental organizations (NGOs) was extremely crystallizing and powerful to help the government, especially the developing countries, to raise their voice and to reach an agreement. I believe that the Glasgow Dialogue was achieved because of the noise from the NGOs that succeeded to put pressure on the UK Presidency; this resulted in the announcement of the Glasgow Pact. This will be a mechanism to identify how we are going to speak on loss and damage, so I believe the awareness as well as the building of knowledge at NGOs with the right scientific support will help all of us, as a developing country, to deliver our message and voices to the Global North. That we need the support both technically and technologically, for not only mitigation and adaptation, but only to use it for reducing the loss and damage.

I believe all of the scientific community and all of the Global South is now relying on nature-based solutions. Nature-based solution is not only a tool to rehabilitate or to alleviate or to capture the excess of CO_2, but it is also a tool of revenue generation for the local community. I believe in Kenya; they have splendid example on mangrove cultivation as well as coral reef conservation and they use it to support the local community. In Egypt, nowadays we are thinking about mangrove rehabilitation, I believe in India as well there are similar cases. Not only is it building a huge world record, but we can rehabilitate mangrove to do this function as well as to support local communities.

Mr R R Rashmi, Distinguished Fellow, TERI

Dr Temraz you have emphasized the role of the NGOs, the civil society in bringing up this issue of loss and damage highlighting this. The need for scientific data to convert the estimation of the losses from the global to the national losses, and then project them for the purpose of financing and support which is required and nature-based solutions. I hope these thoughts get into the adaptation communication of some of the leading countries of the Global South, which would pave for articulation of the entire framework for measuring adaptation and the loss and damage.

Ms Daljeet Kaur who is the climate and environment advisor with the FCDO and she brings a rich experience of having worked in the area of climate resilience. She is working on some of the projects in India at the moment, so coming from the perspective which Dr Temraz has just laid out, Ms Kaur how do you see the scenario panning out at Sharm el-Sheikh? What are the key issues in terms of climate resilience and adaptation and how do you think we can really reach this objective of having an adaptation goal at the global level, which would permeate the adaptation actions across all the countries?

Ms Daljeet Kaur, Climate and Environment Adviser, Foreign, Commonwealth and Development Office (FCDO), India

Ms Kaur started with a brief overview of what happened in COP26 and then lead up to the question that Mr Rashmi asked. I represent an organization which is a UK organization called, Foreign Commonwealth and Development Office (FCDO), as you know UK was the COP26 president and is the COP president at the moment before we hand it over to Egypt. As COP presidency, UK wanted to secure more Global action and ambition on adaptation and resilience and more financing towards these actions. This focus actually led to a steep change in political commitment on adaptation, loss and damage at COP26 and some of the highlights is the launch of **Glasgow–Sharm el-Sheikh work programme (GLASS)**. That aims to enhance adaptation actions and support and contribute to the global stocktake on adaptation.

The second bit of success came around the adaptation finance because we saw commitments from donors to double 2019 levels of adaptation finance by 2025 and provide an update on how this will be achieved in the 100 billion delivery plan. Additionally, Article 6 outcomes included allocation of 5% of proceeds from the newly established international carbon market mechanism, which is again a good thing for adaptation finance. Thirdly, restating the need for more finance specially to address loss and damage. There was a lot of momentum around establishing a financial facility around loss and damage exclusively, which did not happen, but we did see setting up of a Glasgow dialogue to discuss funding arrangements further, in the run-up to COP27 as well as an agreement on finance to provide technical assistance to put in effective actions to minimize and address loss and damage through the Santiago Network. The UK remains focused on delivering on COP26 commitment. The FCDO is using its country network, political leaders, technical expertise, and the official development assistance programming to empower national, sub-national and local actors and systems to integrate climate risk into policy and investment decisions. Just continuing this brief overview, it is apparent that adaptation gaps are massive, and we have heard our earlier guests and speakers talk about that extensively, but we have also seen in the last decade that we have made significant progress on building better understanding of the local communities on the nature of risk and have also improved planning capacities within state and the sub-national levels. However, the gap on financing the adaptation needs in the last decade has tremendously increased, we see climate impacts, climate crisis increasing in these years and so has the adaptation needs, which has led to increasing financial needs as well.

The earlier speakers have spoken about how mitigation gets all the focus in the climate finance pot and also adaptation does not have a single universal matrix to capture adaptation impacts across countries, context, and population. So, the question is, can countries really set targets that lead up to setting up a Global Goals on Adaptation and how can we report on their progress collectively? I would say that there is definitely a need to follow a two-way process, which is a feedback process understanding the local needs that feed into the GGA methodology and also unpack how GGA itself can inform and direct actions and funding to make countries more resilient. An important aspect is also to empower local communities to develop their own goals for the global community to listen to them, the goals on adaptation need to be bottom-up and validated by the vulnerable communities. I think it is equally important for them to be scientific, but to also have the community perspectives into creating these goals. The process needs to be fair and flexible; we've also heard people talk about lack of data with countries and we should not penalize countries for the lack of data and the capacity. In fact, we should have developed countries supporting developing and low-income countries in progressing on monitoring actions against the global goals. From the Indian perspective adapting to climate change and disasters remain India's top priority, fiscal requirements as we have seen in NDCs is around USD 206 billion between 2015 and 2030 for adaptation efforts, and climate adaptation in India only sees around 4.4% of total climate funding coming towards it, whereas mitigation gets 91%. Adaptation finance comes primarily from public funds, private sector contribution is negligible, and I do not know how that can be improved, but that's an area I think which needs to be focused. India is already developing its National Adaptation Plan as it has set up a core committee, a Ministry is on board and they are discussing on what needs to come in the National Adaptation Plan. India is also reviewing the financial needs for having a national 10-year long National Adaptation Plan and considering including adaptation actions in its long-term strategies as well.

At COP26, I think India would push for support towards specifically increasing public and private sector funding on concrete A&R actions, shifting private finance towards climate resilient in investments. I hope India will also push for expanding protection against climate-linked disasters, through insurance, social protection coverage and investments in early warning systems. FCDO specialized in doing this and we're working closely with the Government of India on these aspects. We can share learnings around our programme and our work maybe later in the chat box or in another forum. Lastly, India is transitioning to a cleaner resilient economy that supports India's development needs. We have been hearing India still has to meet its development needs, there are huge gaps in that, and we need to take that into account when we're designing any sort of a climate action. I would end by sharing four guiding principles from the Global South perspective that may be useful for this conversation:

- To prioritize the most vulnerable countries and poorest communities; including women and marginalized groups and support them to lead adaptation action.
- Focus on scaling evidence-driven equitable and impactful approaches, which respond to feedback and avoid maladaptation measures.
- Build coherence and leverage synergies across stakeholders or stakeholder groups, sectors, and geographies.
- Implement UNFCCC mandate within the bounds of Paris Agreement and Glasgow Climate Pact, responding to the self-identified priorities of developing countries.

Mr R R Rashmi, Distinguished Fellow, TERI

That was very interesting to get specific nuggets and glimpses of how you look at the adaptation actions unfolding in India and some of the other countries in the Global South. You emphasized the role of local communities in preparing an adaptation response that is critical and I am sure the countries are looking at it in their adaptation communication and the final plan that they will be preparing. The principles which you have outlined are important, but the adaptation is one issue that strongly resonates with the issue of equity across the globe. In fact, all the countries of the globe are currently affected, so it is very important to see those who are critically affected by the climate change and suitably come up with a compensation mechanism or a funding mechanism for them.

Dr Koko Warner, United Nations Climate Secretariat, UNFCCC

On loss and damage, there is a Glasgow Dialogue, and many of the delegates participated in the June session – Bonn Climate Change Conference SB 56. There was a lot of feedback that came to the SBI chairwoman about how those dialogues were organized and how they could be organized in the future. So, that is one way for parties as well as those who show up as contributors or observers to share their thoughts about how these next parts of the dialogue are shaped, what the agenda looks like and such. You could convey your thoughts in writing, for example, either an email or a letter and that can then be routed to the SBI chair. So that Glasgow Dialogue will reach its culmination in 2024 and so that of course is one avenue to have that conversation about what needs to be done in this policy area and that may include finance. We hear finance being discussed from the minister level down to the technical level and of course all of you as experts.

Another area that we know is the negotiation of terms of reference and operationalization of the Santiago Network. Again, many of you are actively shaping this idea, what should the expert Network do, how it would be operationalized and there has been a lot of discussions particularly this year on the Santiago expert Network. That will be something that will continue to be negotiated at COP27. A third area that the parties will hear about is the work under the constituted body, the executive committee. That executive committee was set up some years ago to operationalize the Warsaw International Mechanism on loss and damage. Now something that will be happening is the WIM Ex-Com will be looking at its five-year rolling work plan and the five years are now culminating, and it is time to renew that work plan. So, your thoughts and active constructive participation at the WIM Ex-Com is welcome and an interesting way to contribute your ideas. So those are the three things we know the Glasgow Dialogue on loss and damage, the Santiago expert Network – how should it be operationalized and what role would all of you like to play in that expert Network so that the countries are supported in their efforts to minimize and address loss and damage. Then of course the third, the parties will receive the annual report of the executive committee and as part of that annual report, there will be some thoughts about this renewed five-year rolling work plan.

Something else materialized in the June mid-year climate negotiations. There is a request by a major group of parties that would like an agenda item to be considered. The incoming COP presidency is very attuned to party needs and wishes, and the incoming COP presidency along with the current COP presidency have been doing consultations all throughout the year to hear more about party wishes about loss and damage. In a letter, the G77 and China have written that they would be interested in seeing a loss and damage agenda item.

Just a little bit of a look ahead—what other big things are happening in the UNFCCC process? All the scientific evidence that we are reading in the IPCC 6th assessment report, all your work with frontline communities and of course policy, these strands of conversation practice, policy and work with institutions, they all weave together, and it is helpful then to see the big picture. In implementing the Paris Agreement, we have now five-year cycles, and we are about to culminate the first five-year cycle. Next year, the global stocktake of the Paris Agreement will culminate and that will result in a stocktake by parties of all these different areas and loss and damage is included in that global stocktake. What one might expect is that global stocktake may point the direction for future policy and action moving forward. The global stocktake is also an important conversation for this question about what we do about adverse climate impacts.

Another five-year cycle is means of implementation. The Paris agreement was designed in a way that there is a five-year cycle to check in how are parties doing collectively towards the Paris agreement objectives, which is in Article 2—the temperature goal, adaptation and resilience, and low greenhouse gas pathways and that means of implementation. So, you will be hearing about post-2025 finance, and also about capacity and technology.

Dr Jyoti Parikh, Executive Director, Integrated Research and Action for Development

I wanted to bring out a few things that we have done recently, but in general we find that narratives are not quite correct, not only they lead to inequity, but they are also not fair. When you say your emissions are rising, but ours are falling then we have to say that it is due to cumulated emissions that global warming is taking place, and our metric should be cumulated emissions and not the emissions.

Regarding climate finance, we suggested that everybody gives money for climate action based on those cumulated emissions, and so every country should pay that much. We have 52 Gigatonnes of emissions, accumulated emissions are 700 Gigatonnes, so even if you charge one dollar per tonne, you have 700 billion US dollars; they are not all for climate finance to give away, but they could cover considerable amount of finance within the country and for developed countries there should be some percentage laid aside for the polluters pay. 'Polluters pay' principle should be applied to the climate finance going outside of your country because that is a principle in which their own country is doing this. Just cumulating from 1990, so that was our deal for climate convention and climate convention took place in 1992, so nobody can say we did not know.

The second is that loss and damage and climate finance can then go a long way. We are also looking at adaptation, now adaptation does not have the revenue stream as the mitigation does. There are some companies who benefit from mitigation, but that is not quite the case for adaptation and so on. Also, because of the scale mitigation is getting cheaper, the LED bulbs got cheaper in India, which went into upscaling by millions of bulbs and that scale brought it down. The solar prices are falling, wind prices are falling, so when the action increases, the price will fall. One could think of this in the serious way. In the innovation part, innovation should be shared, in the same manner when we are sharing everybody's emissions, then we should also share the innovation. Shared innovation can go a much longer way and many more people can benefit and will implement it. Adaptation is becoming very serious for many developing countries that did not actually emit the world average per capita level of emissions, which is about four to five tonnes per person, keeps changing now it is about 4.5, but India has about less than two tonnes per capita and so on. I am not saying that everybody should go up towards average, but at least those who did not go they are below average should get some reliefs and some consideration. I think that while we meet in Cairo, if some of these concepts are clear, then the climate limbo can move further, otherwise it is only few countries who have to do.

Whatever you say there are many pathways to go to net zero and these pathways may not be steady (some go up and then go down and stay steady and then go down and so on), so each case cumulative emissions are different. However, even after peaking you may not come down, you may think that suddenly you will do so and you may not, so there are many uncertainties about net-zero. Not only that, but also how you treat GHG emissions, there is no clarity on who is thinking of what kind of emissions when they mention net-zero. What are they setting it against because in any case even if all countries go to net zero when they say they would (let us say that will happen) even in that case from currently 700 Gigatonnes, it will go to 1400 Gigatonnes, just by emissions even directly. It is also not quite a solution, so we need to be aware of these problems ahead of us and take climate action far more seriously and address the equity issues and not wait until everybody does. I will not do it because those who have emitted more and accumulated more need to take steps faster.

Prof. Fagr Abdel-Gawad, Deputy Director, The Centre of Excellence for Research and Applied Studies on Climate Change and Sustainable Development at the National Research Centre (C3SD-NRC)

I believe we all benefited from these discussions, and we will now begin the second part of the panel discussion, and the first two speakers will be discussing finance and climate finance. Climate finance refers to local, national, or transnational financing, drawn from public private and alternative sources of financing that seek to support mitigation and adaptation actions that will address climate change.

Ms Yeshika Malik, Climate Change Specialist, The World Bank, India

I would want to first of all give a context and a background and structure my arguments in three kinds of pillars. The first one is about climate vulnerability and adaptation because we are talking about financing—so adaptation is critical. In India, we all know that India supports high economic and social cost due to climate vulnerability, climate extreme events, and climate shocks and it is highly exposed to hazards as well and has a very limited coping capacity. These economic losses due to extreme events have doubled in the last decade and unfortunately the poorer states carry a disproportionate burden. We have also witnessed severe heat waves, which are expected to increase eightfold by 2050, various hydromet disasters, and socioeconomic impact, which will have impact on poverty, and which will lower the living standards for over 50% of the population by 2050. The first thing that India needs to take forward is the resilience approach rather than a reactive approach to these climate extreme events. The World Bank is supporting the national and state governments, using a systems approach to building resilience. Resilient Kerala initiative and Odisha partnership have been some of the examples. There was a recent report launch on coastal resilience by the Bangladesh team, but deeper reforms are also needed in terms of resilient, new infrastructure resilient, water resource management, stronger early warning systems, improved dry land agriculture and crop production, better production and protection of mangroves in the east and west coast of India on the adaptation side. All of this certainly requires a large chunk of finance, but to start with they need granular risk analysis and profiles to support planning and prioritization of these adaptation actions, and investments. This is also highlighted by Dr Tamrez. The total government spending on adaptation action has certainly grown consistently in the last decade and it is expected to reach about 360 billion dollars by 2030, but India needs stronger finance and technical capacity for design and implementation of adaptation projects, particularly at a local level.

The second point which is development agenda versus the climate agenda and where the finance should go into. So, India's ambitious climate announcement will not only help the global climate pools, but it is also critical to accelerate its own economic growth and social well-being because the impact of climate vulnerabilities will stay on. This includes India's commitment towards LiFE, which is Lifestyle for Environment, which focuses on promoting sustainable production. I would like to reiterate our country director's word from a recent address that there is no climate finance, it is actually development finance that needs to be looked from a climate lens. As most of you would be aware that the World Bank group has delivered a record 31.7 billion in the last fiscal year to help countries address climate change, and that is about 36% of its total World Bank group financing. To advance India’s ambition in climate and development transitions there are also two core diagnostics that we are working on. The first one is a country economic memorandum and the second one is a country climate and development report, which will look into implementation of India's green transition including adaptation, resilience, finance, institution, and just transition.

The last point, the most important pillar or point which is finance, more than 80% of financing need would need to come from the private sector and India needs to deploy stronger financing and technical capacity for the design and implementation of these climate resilience projects, particularly at a local level. Identifying scalable climate finance instruments such as green credits, sub-national, climate funds to mobilize a greater climate finance and devise mechanisms to incentivize conservation, restoration, regeneration of degraded natural resources and other adaptation actions, is the need of the hour. This can be done through innovative green crediting mechanism, which widens the focus from only carbon-based credits.

Mr Arjun Dutt, Programme Lead, Centre for Energy Finance, CEEW

It is certainly perhaps one of the most important questions for the climate debate going forward and a number of speakers before me have flagged the issue of financing and particularly in this particular forum we are talking about adaptation so I would like to point out four specific points that need to be addressed or that can sort of form the guiding principles in terms of how to look at the climate finance debate, particularly when it pertains to adaptation.

Firstly, by just giving a few numbers, the OECD recently released its compilation of climate finance flows for the year 2020, which are the latest available figures. The top line number of 83 billion is still considerably short of 100 billion number (that has already been discussed). What is pertinent here is that if we look at the share of adaptation versus the share of mitigation in these figures, the share of adaptation flows was about one-third, 34% was the share of adaptation and about 58% was the share of mitigation and the rest was cross-cutting, divided between mitigation and adaptation. There should ideally be a 50:50 split between adaptation and mitigation, the overall flows need to be higher, and the share of adaptation also should be much higher. From about one-third right now, to at least 50%.

The second point that I would like to make is that one of the previous speakers mentioned that the Article 6 of the Paris Agreement has also provided provisions for financing of adaptation through the share of proceeds where every transaction under the 6.4 regime would require 5% of the credits to be transferred to a fund where that they can be used for funding adaptation. Now that is a progressive development, but what is lacking is that only one part of the Article 6 pillar, that is, 6.4 has a mandatory transfer of proceeds towards adaptation, so 6.4 is a centralized market mechanism where carbon currents can be treated. There is another market mechanism, that is, the 6.2 where Internationally Traded Mitigation Outcomes (ITMO), can be traded between countries and in this case, countries are only strongly encouraged to transfer funds towards adaptation, but are not mandated to do so. This is an easy straightforward gap that should be addressed, why should one article 6 mechanism be mandated and the other only strongly encouraged. This is a simple sort of Gap to be addressed in the overarching sort of Article 6 framework and how it seeks to address adaptation finance.

Point number three, we understand that the climate finance flows from developed countries and they have not been forthcoming to the extent that they have promised. In addition, the current macroeconomic environment also is not conducive for developing countries expecting significantly enhanced flow of finance in the near term. Of course, many developed countries are suffering an economic downturn and are headed towards recession. There are elevated levels of public debt across developed and developing countries and so in public finance or public capital that can be deployed towards supporting sustainability is in short supply. So, what we need are mechanisms that maximize the utilization of each dollar of public capital. Each dollar of public capital that is used to capitalize adaptation of climate finance instruments should mobilize many multiples, in terms of private sector investments. One way to do that is to apply blended finance approaches where you are de-risking investments for private sector investments, rather than directly investing funds into specific end users. Again I will circle back to the climate finance flows to illustrate this point and so the latest figures for 2020 say that public climate finance flows were about 68 billion dollars and the private capital that they mobilized was only about what one-fifth of that, that is, about 13 billion; so clearly this public capital is not being used to catalyze more private capital, rather it is being used for direct lending and investment purposes. So, a smarter use of this public capital through catalytic blended finance instruments that can mobilize many multiples, in terms of private sector investments it is necessary to make sure that each dollar that is being employed towards climate finance is doing a lot more in terms of mobilizing private sector capital.

So, these were the first three points and these particularly pertained to how climate finance supports that transfer between developed and developing countries and it should be better utilized. A final point I would like to make how to get private sector investors or private corporates to invest themselves into adaptation activities, because often these are not commercially viable activities, and a for-profit organization will only act if it is in their self-interest. By and large, they will act if only it is, so it is incumbent upon regulators particularly mainstream financial sector regulators to create an environment that directs them to proactively manage climate risk and thereby this could trigger an acceleration of laws towards mitigation and adaptation. Now, this is only possible if exposure to climate risk both transition and physical risks affects their cost of capital, that is, the cost at which there are finances for their own operations. So, how do we do this? What is needed is greening of finance, that is, the internalization of climate risk into the operations of corporates. The RBI recently came out with a discussion paper on climate risk identification and management for banks. Similarly, regulators should require corporates to manage their climate risk much better as per standardized frameworks such as the TCFD that have global applicability. Regulation if it also explains it explicitly provides for factoring in sustainability and ESG considerations into companies' credit ratings, the kind of trading that are ascribed to companies by credit trading agencies if there is an explicit mandate to incorporate ESG factors into these credit ratings and complement it by a standardized framework for doing so. This process would also hasten the flow of capital towards activities where it was not currently flowing such as adaptation. This would be because such regulation would elevate the cost of borrowing for companies that have greater exposure to climate risk, that are not investing in adaptation activities to safeguard their operations and therefore, if such regulation is implemented it can increase the relative attractiveness of sustainable activities—both mitigation and adaptation and compel private sector enterprises to invest in those activities, because ultimately it is in their own self-interest. They are mitigating climate risk, which as most of us now understand is a material business risk even for the private sector. The fourth point is about getting financial regulation to create conditions for private sector to invest in climate-related activities and particularly adaptations since we are talking about adaptation in this forum.

Dr Himangana Gupta, Manager, Sustainable Landscapes and Restoration Program, World Resources Institute India

There has been a lot of discussion on loss and damage by now, and also lost in damage finance, mitigation finance, adaptation finance. Here's the question about the approach is very interesting, what approach should we take? The problem is that we are not taking any approach, we have not decided on any approach or loss and damage as yet. I just go back to a comment by Mr Rashmi, who after Dr Koko's remarks on what has been happened during the real UNFCCC loss and damage dialogue. She mentioned many things that were already happening and Mr Rashmi said that loss in damage is not lost, and we are happy to know that. However, we know on the ground there is a lot of loss that is happening, a lot that is already being damaged. So, when I read loss and damage, I read it as lost and damaged and that is some problem that is emerging from the huge Global North and South divide which is going to take this debate much longer to end because of which we are not really able to zero in on the finance facility that was being expected in COP26.

I will just go back on the Glasgow dialogue, which is being discussed. Last year as a part of the Indian delegation, I was attending the loss and damage agenda item and I remember how many hours of negotiations went into deciding just two functions of Santiago Network. There's a lot of resistance on anything that you ask, as a question, so which is why Glasgow loss and damage, and finance facility was very much difficult to achieve in COP26. The Glasgow dialogue which was established during COP26 that was a consolation prize because we could not get the loss and damage finance facility done. This dialogue was supposed to start in the June session which I did not attend, but the demand for the developing countries was to put it in the formal legend item during the SB session as well, and also during the COP27 sessions, which is going to happen, but there was a lot of repulsion. Something that's to be decided about has to be formally put in the agenda item, that is the first step to even start negotiations and that did not happen during the June session. We are already falling short of the 100 billion dollars, that was supposed to be achieved by 2020 and now given four more years to even think about it and arrange that kind of finance, so we are falling short.

Going back to why loss and damage, now we're talking about loss and damage it is not now it was back in 1991 when AOSIS tabled the proposal for putting loss and damage as a part of the UNFCCC. UNFCCC recognizes it, but the kind of the financial arrangements did not become a part of that. The problem was that mitigation was considered most important by the countries and we are going to mitigate first and that is the something we will reach, this much temperature goal and there will be no dangerous anthropogenic interference, but the dangerous anthropogenic interferences started. The developing countries started saying that adaptation is important because we do not have enough life jackets to protect ourselves from what is happening, but the developed countries are somehow ready. Let us now focus on adaptations as adaptation finance became important. So earlier the entire finance that was focused on mitigation even just GCF decided putting some finance to adaptation. Last year we had this decision of doubling finance for adaptation, which is very good, but when we talk about adaptation shortages, mitigation shortages, let alone loss and damage, that is a thing of the future, but what is happening on the ground. On the negotiations we are quiet, we are living in the history when we talk about that because we are not talking about slow onset events, we are talking about certain calamities, when certain countries talk about humanitarian aid, that is more about reciprocity events. It is not about slow on settlements that we need preparedness for which are more leads to climate change. So today we are at the brink of loss and damage and the global climate risk, it tells how much loss has happened. It says that 475,000 people lost their lives because of more than 11,000 extreme events globally between 2000 and 2019, and the losses amounted to US dollar 2.56 trillion.

One topic that has not been touched until now in this discussion is about the governance of the loss and damage, the Warsaw International Mechanism (WIM) for the loss and damage. This governance item last time could not be decided because developing countries wanted the governance to be under the larger umbrella of the UNFCCC and the developed countries wanted to be under the Paris Agreement, so that there is no liability, as for some provisions of the Paris Agreement. The problem is that the Article 8 of the Paris Agreement does say that the WIM shall be subject to the authority and guidance of the CMA, but this became a reason for debate till COP25. There were divergent views about this between developed and developing countries, it was a huge divide and then even India and other developing countries as well they have a strong stand on dual governance saying that COP and CMA should both be guiding them because it must comprehensively minimize and address loss and damage. There are certain provisions of the UNFCCC, which are important to keep in mind when we talk about this, that is the Article 4.8 of the Convention it says that UNFCCC shall consider actions necessary to meet specific needs and concerns of developing country parties arising from adverse effects of climate change. This is very important, that was noted back in 1992 and something that could have been taken forward, but later the liabilities were removed from the Paris Agreement, which became a reason for concern. Not going too much into the detail we have discussed what are the important matters regarding the loss and damage finance facility and the governance.

What we could look forward to during COP27 is that at least loss and damage comes at the agenda in COP27, and countries are able to discuss/negotiate in a very positive manner. The kind of loss and damage facility that could happen even if it uses the existing institutional mechanisms that we have regarding the financing and we need to obviously differentiate between loss and damage. There are no climate finances, it is development finance, and that kind of developing finance was 0.7 percent of GNP that was promised long time back by the developed countries, but then we started talking about climate finance. I think it becomes very difficult to differentiate mitigation finance from adaptation finance, so we need to be careful that what comes as a loss and damage finance is not actually adaptation finance. When we talk about adaptation finance, it only talks about 'minimizing' or 'averting', but it does not 'address' loss and damage. That is one of the problems. We need to also differentiate between humanitarian aid post-disaster and the way resilience building can be done to reduce the impacts of loss and damage, different from what is done for adaptation. Then how to use existing infrastructure and institutional for loss and damage finance, to basically support developing and most vulnerable. I should say they call it particularly vulnerable countries, so that kind of assessment has to be done. Vulnerability assessment will decide who are those particularly vulnerable countries, that are supposed to get the finance. Then delayed financial commitments and we need to keep in mind slow onset events that affect human mobility. IPCC says that the climate change-related migration will first increase within the borders and then there will be cross-border migration as well. That is something that we need to keep in mind when we talk about loss and damage because those kinds of human rights related to climate refugees will be related to loss and damage. We need to talk about non-economic losses as well because like Professor Jyoti she mentioned that adaptation basically is not quantifiable as mitigation is; so adaptation and loss and damage both are related also to non-economic losses, which we do not account for. That is something we need to think about. Then I do not know if it can, but I saw there are certain research papers; some scholars are studying the role of insurance resilience in loss and damage, although nobody wants to invest in sort of insurance for loss and damage because they know climate-related loss and damage is going to increase in future or what role if it can play in the loss and damage.

Professor Anand Patwardhan, School of Public Policy, University of Maryland

I must congratulate TERI for this initiative in organizing this dialogue. The upcoming COP in terms of expectations is really very significant and consequential for several reasons.

In the six years since the COP was last held in Africa, climate change has become ever more of a clear and present danger, happening in the here and now, rather than a problem with the remote future. However, at the same time as the IPCC- AR6 reminded us with an ever more rapidly narrowing door of opportunity to respond not only for mitigation, but equally for adaptation. It is essential that this COP therefore moves us firmly towards action and implementation, not just words, not just commitments, not just feel-good mid-century net zero targets, but real concrete actions now. So, that we can walk through that door of opportunity before it closes on us.

In that spirit, in response to the question that you posed I wanted to share some thoughts about the one key process that was kicked off at COP26 in Glasgow. Which will conclude at COP28 next year, but for which COP27 could serve as a critical midpoint and that is the Glasgow–Sharm el-Sheikh work programme on the Global Goal on Adaptation (GLASS) as it is referred to and the GGA. In my view, the GGA process emerged out of a well-justified frustration in the developing world, about the lack of concrete progress on adaptation and adaptation finance and many other speakers have talked about adaptation finance already. However, rather than engaging in a contentious and perhaps eventually fruitless renegotiation of the GGA, let me suggest three ways in which that conversation and the GLASS could completely advance and accelerate action on adaptation resilience (which is ultimately what we all want).

First, we need to recognize that for all its vagueness and imprecision we do have a Global Goal and Adaptation, this in itself is a major achievement for the Paris Agreement. This imprecision is perhaps a blessing in disguise because it allows countries the flexibility to operationalize and apply it in ways that is best suited to their contexts and needs. Therefore, our focus now ought to be on how we take this global goal of reducing vulnerabilities, strengthening resilience, and building adaptive capacity, and use it to develop appropriate national strategies for adaptation and appropriate national and sub-national goals and associated metrics and indicators. This is a major and non-trivial undertaking given the huge diversity in national circumstances and the wide range of climate hazards. It will require strong engagement to the research community including perhaps a role for the IPCC, just as the IPCC was instrumental for formulating guidelines for greenhouse gas monitoring and inventories it could well develop guidelines and identify best practices methodologies that could be applied at and across different scales from the local to the national and the global.

Second, we need to recognize that the GGA is a global goal, what does that mean? It means that there is an expectation of global collective action, not just the aggregation of actions from local to national scale but action that the global community can take and support. I would argue that a very important outcome of COP27 could be that the global community commits to securing basic universal enablers of resilience, big no regret solutions that would enable adaptation resilience at all scales, for example, universal access to early warning systems is a key enabler and for this goal the UN Secretary General has already called on the WMO to develop a Five-Year Plan. Another key enabler is climate information; universal access to the right climate information at the right scale in the right form could make risk visible to decision makers and is in fact a global public good. Other example could be a global effort to restore coastal wetlands and mangrove systems to support coastal resilience and universal access to some form of social protection and livelihood support. Like the SDGs, these UERs or Universal Enablers of Resilience could be real tangible options to make progress on the GGA.

Finally, the GGA is a Global Goal on Adaptation, for over a decade now since the IPCC's fifth assessment report adaptation has been conceptualized as a process of iterative risk management. Risk management as we understand it includes risk reduction prevention and relief and compensation and the latter conceptually is nothing other than loss in damage. Within countries loss and damage is not a new concept at all whether it is handled through private markets such as insurance or through public funds such as disaster relief or compensation. It is an essential element to the risk management toolbox there are of course complex questions of who pays how much for what and under what circumstances, but these questions of implementation arise in the case of other risk management options as well, whether risk reduction or hazard prevention. Perhaps recognizing that loss in damage is a legitimate element of the overall adaptation agenda would help advance both the adaptation agenda and the loss in damage agenda itself.

While it is welcome that COP26 kicked off a process to determine a New Collective Quantified Goal on Climate Finance, I believe it is equally important to focus not only on the mobilization as others have done, but also on its delivery and effective use. This leads us directly to the performance of the main operating entity of the financial mechanism of the convention the Green Climate Fund (GCF), which in the case of adaptation has been underwhelming to say the least. Much of this I believe stems from the artificial dichotomy between adaptation and development, is it adaptation or is it development that has led to added complexity and unnecessary burden developing countries for project development; the net result has been that even where resources exist getting them out to vulnerable communities is proven to be difficult. Despite efforts by the GCF to simplify its requirements of the climate rationale of projects the fundamental change needed is the recognition that adaptation is closely interwoven with the development agenda. In the language of the IPCC AR6 what we are seeking is climate resilient development and not an adaptation increment over a conventional development baseline. What COP27 needs to deliver is clear guidance to the GCF to move from a fruitless definitional debate over whether an intervention constitutes adaptation or constitutes development to a more pragmatic question of cost sharing and co-financing. Progress on unlocking this flow of finance for adaptation resilience could well be the most far-reaching outcome of COP27.

Dr Shailly Kedia, Senior Fellow, The Energy and Resources Institute

She thanked the two chairs.

Going forward for the Road to Sharm el-Sheikh, four broad messages emerge.

There is an elephant in the room which is climate finance and from examples in Egypt and India, for the timeframe of 2030, the need for adaptation finance is huge. That is why climate finance including with specific focus on adaptation finance is important when we look at the finance-related negotiations, but the principle of new and additional finance when considering climate finance cannot be lost.

In terms of global goal and adaptation, since it is a universal goal like the SDGs, collective reporting at a global level is important. A suggestion coming from Professor Patwardhan looking at basic enablers such as universal access to climate information and early warning systems. This could be one concrete goal that could be agreed at the global level.

On loss and damage, one must build on the Glasgow dialogue, the previous the Santiago Network, the Warsaw Mechanisms and this must be concretized especially in terms of loss and damage finance.

The global stocktake which will be a major focus for the next COP in UAE must be rooted in the principles of equity and CBDR.

*****