















Launch of the COP26 Charter of Actions and Discussion on "Beyond Climate Neutrality: Using LTS to Chart an Equitable Path for a Resilient Planet"

## **Proceedings**

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## The Energy and Resources Institute

The Energy and Resources Institute (TERI) is an independent, non-profit organization with capabilities in research, implementation and outreach. It has multidisciplinary expertise in the areas of climate change, natural resources, environment, energy, and sustainable development goals. TERI's research and research-based solutions have had a transformative impact on industries and communities. It has fostered international collaboration on sustainability action by creating a number of platforms and fora. Research gets translated into technology products, technical services, as well as policy advisory and outreach. Headquartered in New Delhi, TERI has regional centres and campuses in Gurugram, Bengaluru, Guwahati, Mumbai, Panaji, and Nainital.

#### **World Sustainable Development Summit**

The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (TERI). Instituted in 2001 as the Delhi Sustainable Development Summit (DSDS), the Summit series marked 20 years in its journey of making 'sustainable development' a globally shared goal. Over the years, the Summit platform has brought together thought leaders, heads of state and government, scholars, corporates, youth groups, and civil society representatives from across the world. The 21st edition of WSDS will be held on 16–18 February 2022, on the theme: *Towards a Resilient Planet: Ensuring a Sustainable and Equitable Future.* 

#### **COP26 Charter of Actions**

The 26th UN Climate Change Conference of the Parties (COP26), held on 1–12 November 2021 in Glasgow, aimed to mobilize the action on mitigation, adaptation, and resilience, and strengthen the narrative for better alignment with sustainable development goals. The Energy and Resources Institute (TERI) has prepared a COP26 Charter of Actions, which will assimilate questions and challenges posed by keys sectors in India, propose probable and sector-specific options that can advance climate action and ambition in the country, and also highlight normative implications for the global climate agenda. The outcomes of COP26 and the messages from the Charter will also be discussed at a plenary session at the World Sustainable Development Summit (WSDS) to be organized by TERI on 16–18 February 2022.

#### **Documentation**

The documentation is not an exact transcription and some editing was done to make the messages clearer for the reader.

## **Acknowledgment**

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## **Executive Summary**

- The scope of Article 4.19 needs to include adaptation: Long-term low emission development strategies (LTS), as under Article 4.19 of the Paris Agreement, can be a key instrument to implementing the Paris Agreement, if equity considerations are taken into account. The current scope of Article 4.19 needs to be expanded to include adaptation, which is currently covered under Article 7.
- Carbon neutrality is just an intermediate target on the way to climate stabilization: Carbon neutrality means not adding any more carbon to the atmosphere; however, the accumulated carbon from historical emissions is already impacting every region of the world, owing to which there are going to be more severe events in spite of having reached carbon neutrality. As a result, it is not enough to just talk about climate neutrality; we need to talk about climate stabilization, and this means that in the long term we will need to stabilize the global temperature at about 1.5 degrees Celsius above the pre-industrial levels or at least well below 2 degrees Celsius.
- Long-term strategies will be important to achieve both climate and non-climate targets: LTS should not only be mandatory for countries; they also need to be reviewed periodically in order to account for new knowledge and for the uncertainty that comes with future development. These LTS should aim to strengthen the biospheres' contribution to climate stabilization. Climate policy is the key for LTS, but at the same time, there is a need for separate instruments and financing for ecosystem service protection. LTS is also important not just to understand the long-term but also to inform the short-term strategies.
- Adaptation should be at the core of long-term strategies: Although it may be contended that there is a growing
  narrative by countries to include adaptation within their long-term strategies, this has not translated into any
  high level of integration with concrete formulation and communication in the LTS submitted by countries. There
  is also a need to devise a mechanism for compensating those people and the communities who are going to be
  impacted and who are going to suffer losses.
- Multilateral cooperation is going be crucial for making long-term strategies successful: It is important to
  identify the role international cooperation can play in exploring what it means to transform these economies,
  so that each country realizes now how much they need from other countries. To guide LTS, there is a need
  to especially support low-income countries via multilateral cooperation; this allows these countries to have a
  holistic view on not just climate change, but also biodiversity crises and the global crisis like COVID-19 in an
  inclusive manner that leaves nobody behind.
- Climate finance need to be earmarked for adaptation and equity: The principles of 'polluter pays' should be applied to finance adaptation and loss and damage activity beyond climate neutrality; it should be the guiding principle to mobilize finance and resources. Adaptation and investment in innovation for climate stabilization needs to be at the core of climate finance and public finance.

## **Event Proceedings**

## **Welcome and Introduction**

Vibha Dhawan, Director General, TERI



Global collaborations and strong coalitions are important to mobilize action to address climate change impacts. However, the real arena for climate action is at the national and subnational levels, as well as in business and industry. Climate action should be understood in not just sectoral terms but also in cross-sectoral aspects, including in areas of finance, as well as science, technology and innovation.

Keeping this in mind, The Energy and Resources Institute (TERI) has put together this knowledge document, COP26 Charter of Actions, as an effort to rally for an equitable and ambitious global climate agenda. I am happy to welcome you all to the launch of this very important document. Issues emanating from the COP26 discussions and the Charter would culminate in a review at a plenary session at the World Sustainable Development Summit 2022, which would assess the efforts of international climate negotiations in securing a sustainable future, and deliberate on future actions. The Charter will examine the themes of equity, green finance, nature-based solutions (NbS), adaptation and resilience, energy, clean transport, and business actions.

Long-term strategies (LTS) on low emission development, as under Article 4.19 of the Paris Agreement, can be a key instrument to implementing the Paris Agreement if equity considerations are taken into account. To reach global climate stabilization, it is crucial that countries develop long-term visions, goals and strategic guidelines for climate policy, embedded in the wider sustainability agenda.

This will be the basis of the panel discussion which is to follow the launch of the Charter. I am elated to welcome distinguished speakers from our partner organizations to present their findings. I also look forward to an insightful discussion from the invited external speakers.

Once again, I welcome you all to what promises to be a stellar discussion.

## Keynote Address & launch of the COP26 Charter of Actions

Rameshwar Prasad Gupta, Secretary, Ministry of Environment, Forest and Climate Change, Government of India



It is a great pleasure to join you on the launch of the knowledge document, COP26 Charter of Actions, prepared by TERI. I am confident this initiative will provide direction for charting a course for equitable and sustainable climate action in India and for the world.

When we talk about 'Beyond climate neutrality', there are plenty of issues that still need to be worked out, negotiated, and finalized before we reach climate neutrality. However, even after reaching this climate neutrality, and howsoever we may define it, the issues that will remain are the carbon that has already been emitted into the atmosphere, its impact on the planet, on the society, on the nations, and the people, and the differential impact it is going to have on different communities. It is very necessary that local plans and impacts are worked out and detailed as per the regions, and we start working towards mitigating those impacts. Adaptation finance and action in this particular area becomes extremely important. Discussions must start with those people and areas that are going to be the most impacted. They must be helped through a definite negotiated agenda, and action plans must be formulated along with the finance and all the resources – whether they are technical, human, institutional – to face the impacts as well as build their infrastructure to withstand the impact of the change, which would inevitably come along with the carbon that is already there. Climate neutrality does not consider eliminating the carbon that has already been put in the atmosphere; it only talks about not putting any more carbon there. As a result, we are going to see more and more severe events in spite of having reached carbon neutrality, and they will be much more severe and more frequent. Hence, we also have to think of a mechanism for compensating those people and the communities who are going to be impacted and who are going to suffer losses. They will have to be an integral part of the agenda.

Equity and climate justice has to play an important role; it has to be the touchstone of any global climate action. Equitable carbon and development space before reaching carbon neutrality to achieve sustainable development must be all based on the principles of common, but differentiated responsibility and respective capabilities. The

principles of 'polluter pays' should be applied to finance adaptation as well as loss and damage activity beyond climate neutrality, and would be the guiding principle to mobilize finance and resources. All long-term strategies have to be guided not only by mitigation, but also by climate adaptation and climate stabilization using measurable indicators.

Apart from carbon neutrality, the pressure we put on nature through expecting various resources are also more or less causing environmental degradation and climate change. This is where the concept of circular economy becomes extremely important; however, circular economy at a very high level of consumption also puts extreme pressure on energy requirements. Our honourable Prime Minister has been saying that we have to think of sustainable lifestyles not only to tackle climate change, but also to reduce the pressure on the environment and nature, and to ensure that it remains at a level where nature is able to provide us resources sustainably for our living.

## Using LTS to Chart an Equitable Path for a Resilient Planet

Chair: RR Rashmi, Distinguished Fellow, TERI



Long-term development strategies do not and should not include only mitigation, but overall climate stabilization in the expectation that the larger interests of humanity is taken care of. Thus, LTS includes several aspects; it involves not just carbon emission reduction, but reducing adverse impacts of climate change, improving the capability of the communities and societies to adapt to climate change, and be resilient to withstand the adverse effects. Hence, they need to have adequate resources. While we reduce emissions, we also need the means of implementation; therefore, long-term strategy cannot remain lopsided.

Article 4.19 of Paris Agreement envisages that long-term strategy needs to be prepared by all countries; however, this is under Article 4, which talks about NDCs. NDCs are supposed to be comprehensive – they are not supposed to be considering only mitigation, whereas adaptation is on a separate footing altogether as it is captured under Article 7. Hence, there is a need to actually combine the two articles and prepare a strategy that takes care of the

broad objectives of the NDCs, and at the same time, makes the society resilient and enhance their capabilities to adapt.

The four organizations – TERI School of Advanced Studies, German Advisory Council on Global Change (WBGU), The Warsaw Institute for Economic and European Studies Foundation (WiseEuropa), and Ecologic Institute – have come up with their own versions of how such a long-term strategy can be prepared and they will be sharing their experiences today along with their visions about what such a strategy should look like. They will discuss the issues in preparing a strategy in terms of long-term goals vis-a-vis their relationship with the short-term goals. Most countries have announced their NDCs, and some of them have also announced a long-term goal for 2050, 2060, or 2070, but the issue is that a long-term strategy is far out in the future, we need to understand its impact on short-term goals. We need to determine the manner by which we can enhance them so that they can address both the needs of mitigation and adaptation.

## Shailly Kedia, Associate Director, Sustainable Development and Outreach, TERI



We all know that time is running out and according to science, we may have less than a decade to fulfil the Paris goals. A holistic approach incorporating short, medium, and long-term measures is needed for meaningful climate action. To fulfil the global aggregate goal of net zero by 2050, and to allow some development space for developing countries, much is needed, especially from the developed countries who should move towards being net negative individually by 2050. Net zero is necessary, but not sufficient; climate stabilization is more important. The accumulation of greenhouse gases in the atmosphere, which will lead to climate impacts, is a cause of concern, as well. Along with that, 2030 climate targets must be revised upwards in a major way by all countries.

Equity is key to effort-sharing. Climate change is not a problem caused by emissions in the past few years; it is a problem caused due to accumulated GHG emissions in the atmosphere since the industrialization age. United

States alone accounts for about 25% of the cumulative CO2 emissions. The G-7 countries and the EU-27 together account for 45% of the cumulative CO2 emissions, China accounts for 13% and India accounts for 3.1% of the cumulative CO2 emissions. At just 1.9 tonnes, India's per capita emissions is less than half of the world average of 4.7 tonnes, and is the lowest amongst the G7 countries.

For long-term strategies, adaptation needs to be at the centre stage. Although it may be contended that there is a growing narrative by countries to include adaptation within their long-term strategies, this has not translated into any high level of integration with concrete formulation and communication in the LTS submitted by countries. In TERI's analysis of 31 countries who had submitted their long-term strategies, ahead of COP26, only five countries had some sort of a strong element of adaptation in their LTS. It is evident that adaptation has not been given due consideration. While formulating and communicating on LTS, it is important that developing countries should play a key role in tabling proposals for a more concrete agenda on adaptation, including on adaptation communication.

Coming to the COP26 Charter of Actions, which was launched during the event, global deliberations are important, but the real arena for climate action is at the sub-national level, national level, as well as in business and industry. Hence, it is important to further understand what are the sectoral implications as well as thematic implications of adaptation for areas such as finance. With this rationale, TERI prepared the COP26 Charter of Actions, which examined key seven themes of equity, climate, finance, adaptation, nature-based solutions, energy, transport, and business actions. The Charter examines the themes in the context of India and in the process, distils messages for the global community for COP26 and beyond.

The Charter activities are supported by the British High Commission, Bloomberg Philanthropies, Shakti Sustainable Energy Foundation and Tata Cleantech Capital, and held under the aegis of TERI's flagship track-II initiative, the World Sustainable Development Summit (WSDS). Issues emanating from the COP26 discussions and the Charter would culminate in a review at a plenary session at the WSDS 2022, which would assess the efforts of international climate negotiations in securing a sustainable future, and deliberate on future actions. The COP26 Charter of Actions, in a snapshot, covers the seven themes as highlighted before and the chapter team includes 36 authors and nine reviewers making it a total of 45 colleagues from TERI.

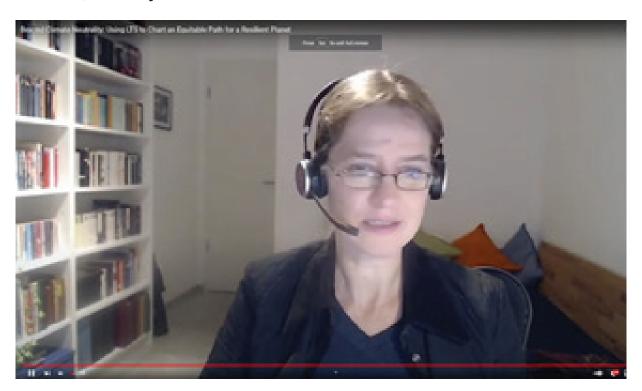
#### Coming to the key messages of the Charter, Dr. Kedia highlighted the following:

- Overall: It is imperative that the progress made by countries is assessed based on the principles of equity, as well as common but differentiated responsibilities and respective capabilities, well before the global stocktake that is to take place at COP28 in 2023.
- On India's leadership: Although India has low per capita emissions, it can show normative and entrepreneurial leadership when it comes to international climate action.
- On climate finance: There is a need for well-defined mechanisms under the new collective quantified goal on finance. Adaptation and investment in innovation for climate stabilization needs to be at the core of climate finance and public finance.
- On adaptation: The key question is whether COP26 can be an adaptation COP. This message was very strongly highlighted in the first high-level meeting by the Prime Minister of India. There is a need to also redefine just transitions to not just include mitigation, but also adaptation. Adaptation should be at the core of long-term strategies.
- On nature-based solutions: Trees outside forest offer a huge potential for countries like India. It has a potential
  of being 30% of the total carbon sink in India. Agroforestry and plantation programs need to be promoted on
  a large scale in India and in countries with similar contexts. Apart from this, ecosystem-based approaches by
  considering terrestrial, coastal, and marine ecosystems need to be further enhanced along with lending farm
  and farmer resilience.
- On the role of businesses: Businesses can play a role in upscaling climate actions and developing disruptive technologies, especially in hard-to-abate government sectors. Conversely, businesses can play an enabling role, and also promote market development of low-carbon products.

- On renewable energy: India recently announced an ambitious target of 500 GW of non-fossil energy (electricity installed capacity) by 2030. Innovations for ensuring energy access through measures such as distributed renewable energy are important along with flexibility of power systems through energy storage solutions and supply and demand measures.
- On sustainable mobility: Low-carbon transport must be equitable and available to all, and not just private vehicle owners. Institutional innovations could include a common fund for investment on low carbon transport and coordination mechanism for holistic transport planning at national and sub-national level.
- On sustainable consumption: Short, medium, and long-term strategies at the global level must focus on sustainable lifestyles and consumption. There is a need to further strengthen alignment with SDG 12, along with concrete measures, such as responsible advertising, eco labels and awareness.

In conclusion, the science is clear that we cannot delay climate actions. A holistic approach for short, medium, and long-term strategies are needed. Measurable adaptation indicators need to be at the core of long-term strategies. At the moment, this aspect is very weak even for developed countries. The present political economy realities favour mitigation over adaptation. States, countries, and governments need to ensure adequate support for the adaptation and development of innovations related to adaptation. India has demonstrated entrepreneurial leadership, but it also has to take the role of a normal leader among developing countries, as well as globally to promote shared understanding around adaptation, sustainable consumption, lifestyles and climate justice.

# Karen Pittel, Chair, WBGU and Director, Center for Energy, Climate and Exhaustible Resources, University of Munich



WBGU's policy paper calls for long-term strategies, on the one hand, pointing out why it is so necessary, and on the other hand, also identifying key requirements for these strategies to fulfil, and key topics that they should address.

It is not enough to just talk about climate neutrality; we need to talk about climate stabilization. In the long term, we will need to stabilize the global temperature at about 1.5 degrees Celsius above the pre-industrial

levels or at least well below 2 degrees Celsius. For this, we need long-term strategies; however, we still have a short- and medium-term focus in the NDCs. Politicians and companies need a long-term outlook, and in many cases, they do not have that to implement. On the one hand, we have the far more ambitious NDCs, but on the other hand, we need to develop the required technologies as well as to raise the necessary funds to fulfil their goals. Dr. Pittel highlighted that the paper will not only call for making these long-term strategies mandatory, but they also need to be reviewed periodically in order to account for new knowledge and for the uncertainty that we still face about future development. We also need to recognize that, first of all, carbon neutrality is really not more than an intermediate target on the way to climate stabilization. It requires not only for all countries to become climate neutral, but also to develop these forward looking decarbonization pathways, that involves not just holding on to these bridge technologies that is used as an excuse to not go further. There is a need to avoid new technological lock-ins with respect to infrastructure and maintain the options that is needed for not just temporary, but permanent CO2 removal. It also requires this outlook on stabilization and not just neutrality, to redesign the COVID-responsive program, keeping climate neutrality and climate stability in mind. In this, we need to especially support low-income countries via multilateral cooperation; we need to not only help each other, but also to have a holistic view on things, for instance, not only thinking about climate change, but also about the biodiversity crisis and global crisis like COVID in an inclusive manner that leaves nobody behind.

For this to actually be possible, the WBGU paper looks at what are the key demands for the long-term strategies to be successful. They have to be geared towards long-term stabilization, and at the same time should aim for these synergies and multiple benefits with respect to the sustainability agenda. They have also to be considered in an international context, taking into account the impacts on the countries and should support development and innovation on the basis of multilateral partnerships. Finally, they have to improve the planet security, not just for households and for companies, but also for regulatory agencies, through stable long-term regulation that also assures the provision of the necessary private and public funds.

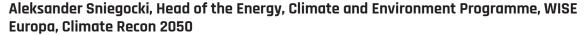
Topically, we identify three priorities that should be considered in these strategies. We especially stress that these three topics are not mutually substitutable. Hence, they are all needed by themselves and individually.

First, CO2 emissions from fossil fuels have to be phased out fast and completely, and their exploration and extraction has to be ended. Only where sustainable alternatives to fossil fuel do not exist yet, should we use them; at the same time, we should ensure that the carbon is stored and not released later. New energy systems have to be designed or the entire economic system have to be designed systematically aiming always for these multiple benefits, with respect to sustainable development at home, and also abroad in the spirit of solidarity.

Second, these long-term strategies should aim to strengthen the biospheres' contribution to climate stabilization. Biodiversity and ecosystem services are among our most indispensable natural life support systems. Climate stabilization cannot be accomplished without an intact and resilient biosphere. Hence, we have to use strategies that yield emission reductions and at the same time, preserve and foster biodiversity and ecosystem services. This is described or expanded on, in length, in our last flagship report, which focused on three exemplary multiple benefits strategies that foster climate protection, biodiversity, as well as security of food systems. Now for these strategies to be successful and to be implemented, climate policy is not enough. Climate policy is the key for long-term strategies, but we always have to think about separate instruments and financing for ecosystem service protection that includes a broad system of payments for these ecosystem services, as we do not have it yet.

Finally, the third priority is thinking ahead about CO2 removal from the atmosphere. The technologies that are necessary have to be developed in order to be deployed when needed. Today, many of these technologies are not ready to be used at scale, and they have a number of side effects and limitations. Some of these technologies are still poorly understood. Hence, preparing for CO2 removal includes not only looking at the technologies themselves, to develop them further, and to put them on the market, but also understanding the systemic, broader, and also local impacts of these technologies. WBGU paper stresses again on the fact that preparing for the use of negative emissions technologies can never replace ambitious mitigation, as that will also limit the need of these CO2 removal technologies in the future. To ensure that the incentives for mitigation are not diminished, what is really needed is an international governance framework for negative emissions. This means countries should clearly

separate climate policy targets for emission reductions, on the one hand, and those for removing CO2 from the atmosphere. These are the three topics that we think are really crucial for long-term strategies to be successful.





A few years back, European Union countries agreed on a common framework for long-term strategies, alongside a much more detailed planning for up to 2030, and provided a date for every country to prepare and submit a very long-term strategy at the European level, as well as in a global context. After a couple years, now, there is some progress. Mr. Sniegoscki's presentation focused on the central European countries: Czech Republic, Slovakia, Hungary, and Poland. This is an interesting case for discussion because there is a broad spectrum of approaches in the context of European transition to climate neutrality. In this context, this part of Europe has its own sets of challenges.

This group has relatively high investment needs compared to other parts of Europe. The first thing to be noted is that different countries had different processes and timelines. For instance, Czech Republic is an early mover, completing strategies before a European level framework was set up. Slovakia has also submitted a strategy within its deadline for European Union member states, and adjusting to a net zero target. Hungary has taken more time, but has presented a broad complex document a couple of months ago. Poland is also in the final stages of preparing this document, finalizing some internal government discussions, but this is also a very advanced process. Hence, each country has some processes and timeline in place; however, their targets reflect different points. Both Hungary and Slovakia have already declared climate neutrality, and in Czech Republic, it is still an 80% target, but this is because the strategy was good a few years back, and, it will need to be updated.

Although these targets are set mostly for 2030, what is important for current discussion is how socio-economic impacts are assessed, and to what extent these strategies actually go beyond the climate goals. Hence, we can see that the analytical aspect in all these documents include socioeconomic impacts; however, it is focused mostly on investment needs and the costs of transitional sectoral levels, with little to no details on distributional impact. Moreover, it is less focused on how to assure that there is indeed a just transition across sectors and across

different groups. This is clearly an aspect which will need to be covered in detail in the coming years.

This is why the governance part of a strategy is so important. Among the published statutes, all of them includes provisions for regular assessment and institutions for governance and monitoring its implementation, which is quite important. The document is actually adjusted over the future to reflect this broader context.

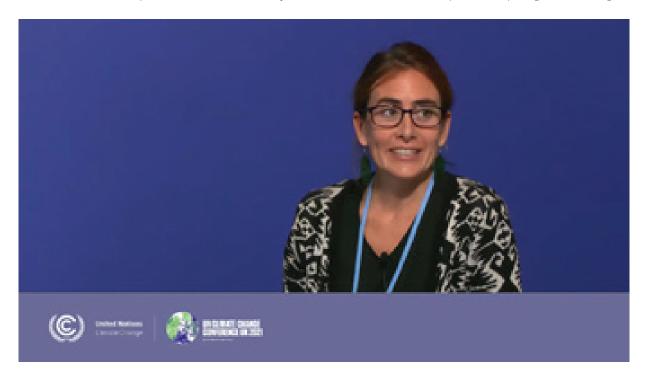
To conclude, as we talk about lessons from the European process, we see that a lot is being done or has been done already on the national level and national capacities to develop the strategies and implement them. However, at the same time, there is always scope for improvements and for dialogue and exchanges in this context, on the national as well as on a regional European level.

Beyond the European level, we also have to talk about how to implement just strategies, which includes more than the climate aspects, and which moves beyond climate neutrality. It is useful to maintain this cooperation, to monitor what is going on in Central European countries, among the partners, so that the strategies are designed better.

## **Guest Speaker**

## Marta Torres-Gunfaus, Senior Research Fellow, Climate and Energy, IDDRI

At COP26, there is a strong call for renewing the mandates for doing long-term strategies. Dr. Gunfaus stressed that under IDDRI's Deep Decarbonization Pathways (DDP) Initiative, her team helped develop long-term strategies



for over 30 countries with the national teams, and all the stakeholders involved in the process confirm that there is value in the process. The process of developing long-term strategy matters more than the final document and roadmap. This is because of the capacity that is being generated at country level to understand the complexity of what it means to transform, as well as helping in the coordination and anticipation of potential conflicts and potential trade-offs. Thus, long-term strategies are about development pathways because longer term perspective allows us to explore further, and to see the systemic transformations and how they link with other non-climate objectives. Therefore, LTS is a very important tool for countries to explore how to meet both climate and non-climate objectives. Having said that, even if it delivers domestic benefits, very importantly, they do require international

support to develop them because they are resource intensive and because they are just so important.

Long-term strategies are important not just to understand the long-term but, also to inform the short-term strategies. The more granular it is and the more sectoral lenses that can be applied, the easier it is to talk to the sectoral ecosystem and sectoral stakeholders, and the easier it is then to discuss policies and implement them. It is also important in identifying the role international cooperation can play because by doing these exercises, and exploring what it means to transform these economies, everyone realizes the need for international cooperation. Hence, we need to look at boundary conditions and what other countries need to do so that we can accelerate our domestic transition. Hence, if we look at the global stocktake in two years, LTS is a very important tool that countries should have. There is a need to identify those cooperation needs in a very specific manner to make sure that we can have the global stocktake around cooperation, learning, and identifying the leverages that are needed to inform the next round of NDCs.

On the question of what kind of international frameworks can we establish for long-term cooperation, Ms. Gunfaus highlighted that for Article 4.19 of the Paris agreement, the motivation then was that we really needed country driven long term perspective. This perspective included embedding equity in a bottom-up approach that the Paris Agreement has. She reiterated that unless each country explores fully what needs to happen to really undertake this huge transformation, it would not be possible to understand what are the smartest ways to collaborate as an international community. If we only have short-term plans, it will be difficult to understand where things are heading.

For instance, for the private sector, there are a number of collaborations that can be undertaken such as in terms of value chains. However, they are very difficult to examine through the NDC lens because there is no granularity and there are binding documents that are heavily negotiated and are short-term. There is a need to learn much more from each other and to help each other more. To do that, everyone needs to open up about the ways that each country could follow. That is the flexibility LTS could provide; it can also help in identifying specific operations that can come into the global stocktake as a moment of learning and making deals.

#### Shailly Kedia, Associate Director, Sustainable Development and Outreach, TERI

Dr. Kedia said that while looking at some of the existing formulations of equity in the Charter, what was evident is that long-term strategies, while considering equity, should not focus on just mitigation, but also on adaptation along with climate finance, as well as technology transfer. It is also important to note that adaptation is not tracked the way mitigation is being tracked; this aspect needs to be discussed. If you look at the Adaptation Gap Report by UNEP, climate finance needed for adaptation is not even 50% of the total, and this needs to change. Adaptation needs to get a higher priority in terms of climate finance, as currently it comes from public funds. In terms of long-term responses, climate finance needs to be broken down into adaptation and mitigation needs. As was mentioned very briefly in the G20 outcome document, national communication related to adaptation would need to be strengthened at a global level.

# Karen Pittel, Chair, WBGU and Director, Centre for Energy, Climate and Exhaustible Resources, University of Munich

The IPCC report basically stresses that there is a need to reach the 1.5 degrees Celsius in the long term. Hence, the question is can that be done with basically nature-based solutions, reforestation and so on, or do we need technologies? The answer is: we do not know. It could be that if we really succeed in this COP or in the future next years, we reduce emissions really fast; then, we do not need that much negative emissions. However, if we do not reduce emissions fast, then we might actually need these negative emissions. Hence, the point of the WBGU paper is to say, be prepared. There is a limit to what you can do with nature-based solutions and after that we might have to turn to, for example, whatever we can store under the Earth. Hence, we need to have the necessary technologies in place. We have to understand where to do it, what the consequences are, and how the

mix should be like. If we just concentrate on one technology, likelihood is that we will actually generate much more severe repercussions on the local communities. The paper does not necessarily say, "we want these technologies necessarily to be used, but we acknowledge that it might actually be necessary".

Dr. Pittel highlighted that nature-based solutions should be addressed first because they have multiple benefits if done right with respect to biodiversity, economics, carbon capture, as well as the negative emissions. Hence, we advocate nature-based solutions, but we also say, be aware of what else we might need.

## Aleksander Sniegocki, Head of the Energy, Climate and Environment Programme, WISE Europa, Climate Recon 2050

Talking about the constraints that operate at the European Union level in developing ambitious long-term strategies, and how the member states align their goals with that of the European Union, Mr. Sniegocki highlighted that member states all have their own national process, which may be adjusted to fit the general European framework. For some countries, especially in central Europe, there is a European level framework, which are significant benchmarks; other countries are starting the process on a relational level, with the expectation that the government will come up with a strategic document to meet the common regulatory framework.

In many cases, the governments had focused on short-term and mid-term planning, due to which they did not have the capacity to focus on developing complex long-term strategies; when they faced this challenge, they realized that they had to invest in capacity-building. This led them to start discussions with experts. For instance, on how to manage the transition to climate neutrality in Poland,, we are in a completely different point than we were few years ago, because at least now we know what are the general pathways to address the sectoral challenges. Now we can start discussing how to manage them appropriately; we can look at what lies beyond.

Hence, what this really comes back to is related to the issues on capacities, time, and learning by strategizing and actually understanding so that we can learn by doing and implement the targets on time.

## **Vote of Thanks**





On behalf of the organizers, Prof. Sharma thanked the main speakers who presented their research findings, and the invited speakers who gave insightful comments to presentation, and the online audience who joined the session.

He highlighted that the panel discussion gave a direction that can be taken at different stages right from local, national, regional to the global level. In the last few years, COVID-19 has given us a clear message that the world is interconnected; we should learn from that. We cannot stop the climate action and climate agenda while COVID-19 is still active. In the context of COVID-19 and climate agenda, we have to understand that there has to be more collaboration among research institutions. He emphasized on the importance of developing skills across institutions to tackle climate change impacts. He reiterated that universities and higher educational institutions are important, and they have to work in tandem with the governments.

It was very clear from the discussion that LTS can provide an orientation for an ambitious short-term climate policy, climate finance, for COVID recovery, and for private investment and equity measures. However, what is more important is the international cooperation for transformation pathways. It is important to recognize where we want to go, and what are those transformational changes that is required to reach there. Hence, it is important to concretize these issues as we are making our strategies. The irony is that LTS, at the moment, is focusing more on emission reductions, and very little on adaptation. This does not work and this is not equity. Right now, locally, the fund for adaptation is very meagre locally; it is not possible to bring into real action adaptation with such meagre amounts.

Prof Sharma also reiterated that in the World Sustainable Development Summit, to be held in February, one line of discussion that needs attention is the kind of action required at local, sub-national, national and global levels, which needs to involve different types of stakeholders.



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