



Task Force 4
Refuelling Growth: Clean Energy
and Green Transitions



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TRANSITION RISK MANAGEMENT FOR LAND- BASED CLIMATE MEASURES

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Abstract






At the 26th Conference of Parties in Glasgow, several countries set targets of achieving net zero greenhouse gas emissions, with India committing to do so by 2070. Along with renewable energy generation and decarbonisation, the land-use sector holds tremendous potential in contributing to the net-zero agenda in many developing countries. Any goal to upscale land-based climate interventions in these countries will need to be operationalised in the wider context of ensuring food security,


reducing land and soil degradation, and improving land productivity and farmer livelihoods. To be sustainable and scalable, these interventions need to balance equity concerns, developmental goals, and impacts on small and medium land-holding farmers, forest dwellers, and other vulnerable communities. Deeper comprehension is required on how the land-use sector, especially with its socially uneven distribution of risks and benefits, can be further impacted by low carbon and the resulting unequal opportunities and challenges from the transitions.



The Challenge



1




In the past two centuries, humans have converted or modified 70 percent of the world's grasslands, 50 percent of the savannah, 45 percent of the temperate deciduous forests, and 27 percent of the tropical forests.¹ It is very difficult to identify pathways for the attainment of the 1.5 degrees target set under the Paris Agreement without the development of practices that promote sustainable and regenerative land-use. The agriculture, forest, and other land use (AFOLU) sector has the potential to deliver 30 percent of the needed mitigation actions by 2050.² There is a need to undertake critical climate action by preventing deforestation and stopping further land degradation by using regenerative land practices. Such practices can also become business cases within the agri-food industry, while also contributing to enhancing the disaster risk resilience of communities and contributing to climate action and environmental protection.

Land-based climate interventions, proposed by the global scientific community to mitigate emissions from the AFOLU sector, include engaging in sustainable land use as well as enhancing the ability of land to capture carbon and abate emissions. However,

there is a need to take cognisance of the unique challenges that can arise from the implementation of climate action in the AFOLU sector, such as the impacts of these interventions on food security, local livelihoods, and socio-economic development. Such concerns are also further complicated by the knock-on impacts of such climate action with the dynamics of land-use, especially in least developed countries. Some of the major practices, introduced and promoted at the 26th Conference of Parties and by the United Nations bodies involve the Reducing Emissions from Deforestation and forest Degradation (REDD+) programme and the propagation of Nature-based Solutions (NbS). REDD+ involves the halting of deforestation and the promotion of afforestation as cost-effective measures to reduce emissions. Similarly, NbS seeks to address social issues by safeguarding, managing sustainably, and restoring both natural and modified ecosystems for the advancement of biodiversity and human welfare.

However, there is a need to understand the impact of the widespread implementation of such measures on the local communities and society, as well as the economic and justice



considerations of these interventions. Several researchers, institutions, and local communities themselves have raised concerns over the REDD+ programme and its failure to consider factors such as commodity trades in the world markets, private capital flows, technology transfers, and adaptation to climate change which are essential in exploring the issues of poverty alleviation and forest economics.³ Additionally, there have been instances of outsiders controlling and monitoring forests and territories of forest-dependent communities. Critics of REDD+ often highlight how the underlying causes of consumption, that are rooted in the economic and business interests of the public and private sector are often ignored by the interventions. Such interventions delegate responsibility upon the local institutions, and ignore issues of over-consumption by business, and the overwhelming focus by governments on ensuring that their economies can compete in global markets.⁴ For example, in Costa Rica, the sacred sited of the BriBri indigenous

people were targeted for REDD+.⁵ Similarly, in Peru, communities local to the BioCorridor Martin Sagrado Project were only consulted after the project was approved.^{6,7}

Similar challenges arise regarding the implementation of NbS, where trade-offs can arise if climate mitigation policy encourages NbS with low biodiversity value, such as afforestation with non-native monocultures. For example, 45 percent of the 350 Mha currently pledged for reforestation is set to become commercial plantations, usually involving single species⁸ (i.e., monocultures). While fast-growing monocultures sequester carbon rapidly, they may not maximise carbon storage in the long term as they are vulnerable to disease, pests, and climate extremes. NbS appraisals also rarely factor in trade-offs among different interventions and ecosystem services, or between stakeholder groups, which may experience the costs and benefits of NbS differently.⁹



The G20's Role



2




The G20 has already provided a platform and initiative for global co-operation and commitments on tackling land degradation. In November 2020, at the Riyadh (Virtual) Summit of the G20 leaders, the G20 launched the Global Initiative on Reducing Land Degradation and Enhancing Conservation of Terrestrial Habitats.¹⁰ The initiative aspires to achieve a 50 percent reduction in degraded land by 2040¹¹ and has cross-cutting principles that focus on the impacts on terrestrial ecosystems and on the importance of multi-stakeholder inclusion and the promotion of inclusive governance.

The G20 has a key role in the promotion of climate interventions and the preservation of nature and biodiversity. The United Nations' Food and Agriculture Organisation has stated that eight G20 members are among the top 10 countries with the largest forest area.¹² In 2021, the G20 declared a commitment to halt and reverse biodiversity loss by 2030.¹³ Several of the G20 countries are at the forefront of innovation, design, and implementation of land-use climate

interventions and strategies. Therefore, it becomes imperative for these countries to promote and develop the lens of justice and equity in the impacts of these ambitious and large-scale climate interventions, ensuring that such policies do not have an additional impact of burdening local communities with socioeconomic consequences.

Through its existing climate and land-use initiatives, the G20 is already exploring the possibilities of new platforms that would bring together the stakeholders who are interested in the domain area of land restoration and develop strategies and action plans to increase their participation. Additionally, through its engagement groups, the G20 has a dedicated focus on land-use and climate change, especially in the groups of Business20, Urban20, the Environment and Climate Sustainability, and the Agriculture Sherpa Tracks. This provides a framework and a platform for the inclusivity of equity and justice concerns in climate action, especially those linked to a critical development resource such as land.



Recommendations to the G20



3



Recognition, representation, and redistribution for local forest communities in intervention design and policymaking


It is essential to identify just solutions to land-use challenges that acknowledge multiple perceptions, beliefs, and values, while also taking into account societal, economic, and power disparities. Based on the theories of Nancy Fraser,¹⁴ there should be considerations of recognition, representation, and redistribution for local communities during the design and implementation of climate interventions and policies.

Local communities can be recognised by integrating their values of nature with climate intervention design and policymaking. Promoting the usage of a uniform system of assigning monetary values to nature, as well as the traditional knowledge, customs, and values of the local communities can ensure that the preservation of natural capital is valued alongside both physical and human capital.

The design of climate interventions and policies should include representation

through the engagement of indigenous peoples and local communities (IPLCs) to strengthen land governance. Local knowledge and context-setting must be included in the design of effective policy mechanisms. Similarly, nearly a quarter of the earth's surface and 80 percent of the world's biodiversity are managed and protected by IPLCs,¹⁵ who can often aid in context-based policymaking and be further incorporated into the formal system of protection and management of these land resources.

It is essential that just solutions to land-use management puts farmers, IPLCs, and other rural communities at the centre of the transition. Such a redistributive mechanism should seek to ensure transformative change that fosters the desired transition pathways, while also acting to diminish existing inequities and injustices. Additionally, the design of global land management practices like REDD+ and NbS, should aim to include components of equitable redistribution, ensuring that the socioeconomic development of IPLCs and rural communities are put at the centre of such transformative measures.




Embedding the value of land in policymaking and global supply chains

The value of land, traditional knowledge, and considerations of economic well-being must be included into decision-making and policy design to drive more inclusive and efficient climate interventions and policies. Governments must support both the public and private sectors and promote the design of frameworks to scale up and mainstream natural capital accounting. This would ensure that the rights and socioeconomic concerns of IPLCs, farmers, and other rural communities are included in the design and implementation of climate actions.

This valuation of land in policymaking and business designs can also provide the necessary structure for policymakers to appreciate the long-term resilience of land and the ways in which agricultural and forestry products are produced and consumed. This can further ensure the redressal of the underlying causes of overconsumption and high demands of goods in the design of climate actions, leading to more resilient and sustainable supply chains and marketplaces.

It is important to note that the current proposed climate interventions such as REDD+ and nature-based climate mitigation do not have components for the decarbonisation of the economy, nor do they challenge demand for exports of food, timber, and other products that involve deforestation. For example, the design of REDD+ projects in Peru are primarily designed to drive commercial forestry and carbon-positive agriculture.¹⁶ Targets and capacities to reduce overconsumption and unsustainable production need to be built into the design of climate interventions. An example of this policy can be found in India's mission LiFE initiative, which seeks to promote sustainable lifestyles for the environment and can be scaled up through the influence of the G20 to become a framework to help in the evolution of the consumption-driven economy into a more sustainable and resilient market system.¹⁷

The G20 can be a platform for its member nations to provide the impetus for the building of transparent supply chains in the private and public sectors given that the impact and the dependence of both sectors on land are often embedded in the supply chains. The G20 can provide



the innovation and leadership to explore better technology-enabled end-to-end traceability of data across global land-use products and supply chains.


Governance to include policy coherence, co-ordination, and social inclusion

The G20 can provide a platform for the development of a framework to enhance policy coherence and co-ordination in the multilateral system as well as through the subnational governance systems of its member nations. This can be achieved especially through the existing platform of the G20 Global Initiative on Reducing Land Degradation and Enhancing Conservation of Terrestrial Habitats. Such a system can build upon the inclusion of IPLCs, farmers, and rural communities in policymaking and intervention design and better undertake the opinions of stakeholders on the ground prior to design. Such a framework can enhance policymaking and interventions, ensuring that minimal adverse impacts are felt.

The G20 can advocate for governance interventions needed to explicitly address inequalities. There is a need to set up a climate intervention and policy design workstream within the G20

architecture that can collate the various findings and outputs on climate action across workstreams, draw experts from various fields (like economics, law, indigenous studies, justice, and gender), and engage in holistic and intersectional design of policy interventions that can generate transformative impact for both the climate and for communities at a global scale.

Policymaking and climate intervention design must be contextual and adaptive to local contexts. There is a need for solutions to be flexible, as the emergence of new actors, the evolution of land-use platforms, and changing policy goals can render solutions transient or maladaptive over time. For example, in response to water scarcity issues during the 2010 droughts, farmers in Nepal began excavating ponds in the dry riverbed and pumping groundwater into their fields to provide irrigation for their crops. However, with the return of rainfall, the change in the land-use patterns with the deformed riverbeds and the new canals led to a change in the flow of the river. This led to the flooding of several areas in the country, especially new areas that did not have any flood warning or management mechanisms in place. This illustrates how localised responses can have



spatial and temporal consequences and require flexible and responsive policy systems for redressal.¹⁸ The G20 deliberations, through the involvement of cross-sectoral experts and policymakers, can drive the design of adaptive governance which is essential to adjust to the unpredictable nature of land-use and changing goals.


Climate policies and interventions often require polycentric models of governance, as land-use may lead to spill overs across geographic and temporal scales. Polycentric models of governance often face several challenges for their execution in climate action projects, with issues of sovereignty, data availability, participation, and unequal power distributions across actors.¹⁹ In this, the multilateral nature of the G20 can be the ideal platform for the discussion and coordination of such climate measures. The G20 platform can act as a new model of polycentric, multilateral model of governance that can provide the space for voluntary, inclusive, and co-ordinated governance in its member nations to leverage interventions and change across distance and jurisdictional challenges. It can encourage discussions and policy design on issues of land sovereignty, along with the exploration

of partnerships and treaties to engage in transboundary climate action.

Capacitating local communities and implementation agencies

The G20 can utilise its engagement groups for the building of capacities of IPLCs and rural communities. To this end, a new Rural20 group for the exposure of such communities to the international models of intervention design, policymaking, and the development of new knowledge and research can be formulated. This model can be peer-based as well, allowing opportunities for researchers and policymakers to build upon the traditional knowledge of such communities to drive more inclusive and contextual policymaking. Such a model can even be replicated among the G20 member countries to further facilitate local monitoring and enhance locally led adaptation and mitigation measures, ensuring that local interests are at the forefront of climate action.

The G20 can further advocate the development of inclusive stakeholder inputs during research and intervention, aiding in awakening public awareness regarding the implications of both climate change and the proposed interventions.




Innovative and multilateral platforms for awareness and knowledge sharing

The G20 can act as an innovative multilateral platform to explore and build partnerships between member countries and even the private sector (through the Business20) to engage in peer-based learning, knowledge management, share best practices and success stories, and identify public-private relationships that can engage in collaboration across the value chain and through place-based coalitions to drive sustainable land-use transitions.

Through its various engagement groups and communication channels, it can encourage the private sector to engage in innovations to support transitions in land-use, especially agriculture. It can also push financing and technical assistance to drive research and innovation to develop advanced precision-farming technologies that enable the more judicious and sustainable usage of inputs, including land, water, and synthetic and bio-based fertilisers and pesticides. Climate action needs to take cognisance of the limitations in frameworks for stakeholder and target group identification,

especially in terms of understanding how allocations of finance and technology would be tailored for local communities, landless farmers, and women to also benefit from climate interventions without the need for existing capital for the interventions to be effective.²⁰ The G20 can highlight the issue of representation around the second order impacts of proposed climate action, particularly for women and the landless, and provide the opportunities for inter-group collaborations with the socioeconomic workstreams for more holistic intervention design.

The G20 can be the catalyst for mobilising mass advocacy and building knowledge around the impacts and inequities of climate interventions through the usage of digital mass communication tools. Businesses and the private sector should be encouraged to drive behavioural changes among consumers regarding sustainability and social inclusion. Such tools can be used to crowd source advocacy around major summits, ensuring that the concerns of IPLCs, rural communities, and farmers are broadcast to a wider audience. For example, annual nature-related posts on Twitter have risen from 30 million in 2016 to 50 million



in 2020, creating a momentum shift that can be harnessed through policy support.²¹ The usage of mass media and communication tools can help

governments and policymakers to engage with communities to further drive inclusive, transparent, and issue-based governance and policymaking.

Attribution: Amlan Mishra, Smita Chakravarty, and Suruchi Bhadwal, “Transition Risk Management for Land-based Climate Measures,” *T20 Policy Brief*, August 2023.

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