



Republic of Botswana



Food and Agriculture  
Organization of the  
United Nations



UN-OHRLS

## **Summary Report of the High-level Side Event on “Strengthening Climate Action in landlocked developing countries: Experiences on adaptation and mitigation”**

**held on Wednesday 9 November 2022 (15:30 to 17:00hrs) at the Tajikistan Pavilion at the UN Climate Change Conference COP27**

## Summary

The High-level Side Event on “Strengthening Climate Action in landlocked developing countries: Experiences on adaptation and mitigation” was held on Wednesday 9 November 2022 (15:30 to 17:00hrs) at the Tajikistan Pavilion at the UN Climate Change Conference COP27 in Sharm El Sheikh in Egypt. The meeting was organized by the Government of Botswana, the Government of Tajikistan, United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS), and the United Nations Food and Agriculture Organization (FAO).

The meeting discussed climate challenges faced by LLDCs, shared experiences, and solutions to accelerate climate change adaptation and mitigation action and sustainable development in LLDCs. The meeting was attended by over 20 participants from member states, the United Nations and other international organizations.

The meeting noted that although LLDCs were the least emitters, they were faced with the high frequency of climate induced disasters including droughts, heatwaves, wildfires, floods, melting glaciers, landslides. However, LLDCs had limited institutional, technical and financial capacities to tackle the challenges arising from the climate crisis. Participants also noted that there were other crises that were ongoing such as fuel crisis and financing crisis.

To respond to the climate crisis, the meeting suggested several solutions including the following.

- Scaling up of financing towards adaptation and mitigation efforts of LLDCs from both public and private actors.
- Provision of capacity building support to LLDCs by international organizations and other partners to attract higher levels of private investment in projects that contribute to climate action in all sectors.
- Strengthening of regional cooperation to support transboundary adaption, mitigation and resilience building efforts.
- Strengthening of early warning systems to help LLDCs’ preparedness to climate change disasters. A global early warning system was being developed by 2027.
- Support in creation of a network where LLDCs can regularly share information and data on experiences, best practices and solutions.
- Support towards improved information frameworks across all stakeholders.
- Establishment of a coherent evidence-based policy framework and inclusivity of all stakeholders including small scale farmers, youths and women.
- Establishment of a dedicated infrastructure funding facility for climate-resilient infrastructure for LLDCs to help in building climate-resilient and sustainable infrastructure.
- Financing for LLDCs to address loss and damage.
- Replication or scaling up of initiatives like the Great Green Wall project that restores degraded land for production.
- Scaled-up and transparent international climate finance to support building of resilient mountain communities and ecosystems.
- Strong partnerships to support LLDCs including on external financing, technology transfer and technical cooperation.

## **Introduction**

Climate change impacts and variability in landlocked developing countries (LLDCs) are deeply interlinked and require multifaceted responses and solutions. The 32 LLDCs that have a total population of more than 560 million inhabitants (7 per cent of the global population), are dispersed in four world's regions: Africa (16 LLDCs); Asia (10 LLDCs), Europe (4 LLDCs) and Latin America (2 LLDCs). LLDCs are sovereign states that lack direct territorial access to the sea. Their remoteness and isolation from world markets, additional border crossings, cumbersome transit procedures, inefficient services and poor infrastructure cause LLDCs to incur substantially higher transport and trade transaction costs compared to other countries. Approximately 54 per cent of LLDCs' land is classified as dryland and 60 per cent of the population in LLDCs are located in these drylands, making them more vulnerable to impact of climate change and climate induced environmental degradation.

In addition, some of the LLDCs have a large proportion of their land under mountainous terrain and are impacted by melting of glaciers. For instance, rising temperatures as a result of climate change is accelerating the rate of glacial melt in the mountainous regions of Bhutan, Nepal, Tajikistan, and the Plurinational State of Bolivia. Long term threats from glacial melt include stressed water supply to support agricultural irrigation, fisheries, and navigation, while the meltwater lakes left behind risk collapsing in sudden and catastrophic glacial lake outflow flooding.

In the 32 LLDCs, issues such as droughts, floods, cyclones, glacial lake outflow flooding, landslides and erratic weather bring about loss of lives and livelihoods, damages to infrastructure, settlements and to other social and economic assets. These disasters often come in succession and trigger other calamities like famine, disease outbreaks, loss of biodiversity and environmental services, and forced migration.

Because of their location, level of development, and greater reliance on climate sensitive sectors like agriculture, LLDCs continue to be disproportionately affected by the adverse impacts of climate change. In arid and semi-arid areas, climate impacts on agricultural productivity may be compounded by the limited water availability. LLDCs are also likely to be disproportionately impacted from the transboundary nature of climate change since they are dependent on imports and on cross-border trade for their food and economic security.

LLDCs' structural vulnerabilities, development challenges and limited productive capacities expose them disproportionately to the severe negative impacts of climate change. The COVID-19 pandemic has exacerbated these vulnerabilities, making it harder to make considerable progress towards the objectives of the Vienna Programme of Action (VPoA) and the sustainable development goals (SDGs). It has also highlighted the need to enhance LLDCs' capacity to address climate change.

Since much of LLDCs' environmental resources and ecosystems (such as rivers, lake basins, and forests) are shared with other countries, transboundary approaches are important to consider by LLDCs since actions taking place in neighbouring countries can have direct or cascading transboundary climate implications for them and vice versa. Regional cooperation mechanisms to address the challenges of climate change and COVID-19 should also be considered, and LLDCs should play a leading role in the implementation and furthering of regional integration.

Also, whilst support and funding has been provided for climate change adaptation and mitigation in LLDCs, there remains a huge financing gap to bridge given the limitations on donor funding, capacity constraints and precarious debt situation of some LLDCs. Climate-sensitive public sector programming and budgeting; mainstreaming climate change into post-COVID-19 recovery and stimulus packages; and creating conducive conditions for more private sector participation in climate change for LLDCs are some of the options that LLDCs could consider for a sustainable future.

Against this background, the Chair of LLDCs Government of Botswana, the Government of Tajikistan, UN-OHRLLS and FAO organized the side event to examine climate challenges faced by LLDCs, share experiences, good practices and innovative financing and solutions to accelerate climate change adaptation and mitigation action and sustainable development in LLDCs.

## **Summary of the Proceedings**

**H.E Mr. Collen Kelapile, Ambassador and Permanent Representative of Botswana to the United Nations and Global Chair of the LLDCs** moderated the event. He explained that while LLDCs only make up 1.9% of global greenhouse gas emissions, they are disproportionately affected by climate change. He informed that the aim of the event was to share experiences, solutions and identify recommendations that could accelerate development for sustainable climate mitigation action and adaptation. He noted that the outcome of the discussions will be particularly important for the Third UN Conference on LLDCs to be held in 2024.

**Ms. Rabab Fatima, Under-Secretary-General and High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS)** thanked all speakers for attending and noted how the importance of the event that was focused on the climate vulnerabilities specific to LLDCs. She noted that while there was increased awareness, a common sentiment among speakers was a lack of desired action from the international community.

The High Representative explained that LLDCs are especially exposed to a set of structural vulnerabilities due to their geography and lack of access to markets. She stressed that climate change was exacerbating these vulnerabilities since LLDCs had limited institutional, technical and financial capacities to tackle the challenges arising from the climate crisis. She noted that while the frequency of extreme weather events increased, international support to address climate change was falling short.

The High Representative explained how the land in LLDCs has been impacted by climate change. She noted that the total forest coverage in LLDCs continues to decline. Over half of land in LLDCs is classified as dryland and is especially vulnerable to drought. She noted that rising temperatures are melting glaciers in mountainous LLDCs, causing more landslides, flash floods and reduced water availability. In Latin America, record wildfires have been occurring over the past two years with Bolivia and Paraguay among the most impacted. In Central Asia, LLDCs are also suffering from an accelerated melting of glaciers which both threatens the water supply and the overall

socioeconomic stability. The World Bank report estimates that Central Asian LLDCs could see as many as 5 million internal migrants by 2050.

The High Representative stressed that while LLDCs have minimally contributed to climate change, they are the most impacted by it. She noted that according to UNCTAD, two thirds of private investment in climate related sectors goes to developed economies and financial flow to countries where the needs are the greatest, including LLDCs, were paltry by comparison.

To respond to the climate crisis, the High Representative listed several solutions. Her highest priority is scaling up of financing of adaptation and mitigation efforts from both public and private actors. She stated that development partners could better support LLDCs by offering predictable financing. She also stressed that international organizations should provide capacity building support to LLDCs to attract higher levels of private investment in projects that contribute to climate action in all sectors including renewable energy and agriculture. By helping enhance the LLDCs capacity, LLDCs will be able to attract more private sector projects that contribute to climate action.

The High Representative highlighted the possible use of blended finance tool, citing the ability of the Green Climate Fund (GCF) to bring \$1 billion dollars of investments for mitigation and adaptation projects. She also pointed out the need for LLDCs to scale up effective homegrown mitigation and adaptation initiatives. She indicated that the Third LLDCs Conference to be held in 2024 will be an opportunity to put the spotlight on many of these issues and find practical solutions. She ended by highlighting the role of UN-OHRLLS in helping LLDCs foster more partnerships and tackle problems from a global level.

**H.E. Mr. Bahodur Sheralizoda, Chairman of Tajikistan's Committee of Environmental Protection** started by explaining the topography of Tajikistan. 93% of the country has mountainous terrain and 60% of water in Central Asia is sourced from Tajikistan. He stressed that the abundance of glaciers in the region meant that Tajikistan was especially vulnerable to floods and losses to biodiversity. He indicated that the country faces severe loss in agricultural production due to climate change extreme weather disasters and water scarcity.

He noted that for the Republic of Tajikistan, that is located at the source of the main transboundary rivers of the Central Asian region, issues related to the prevention of natural disasters related to water, as well as the elimination of their consequences, are of great importance. He noted that more than 80% of natural disasters in Tajikistan are related to climate change. Over the past 20 years, there have been over 4,000 natural disasters, meaning there has been an average of 1 natural disaster every 2 days.

Mr. Sheralizoda explained that the damage of natural disasters crossed borders and that damage to the water infrastructure in Tajikistan could hurt dependent neighboring countries. He called for a strengthening of regional cooperation to support transboundary adaption, mitigation and resilience building efforts. He underscored the importance of strong early warning systems to help LLDCs' preparedness to climate change disasters and called for support in strengthening the early warning systems. He also called for regular sharing of experiences, best practices and solutions between LLDCs at national, regional and global levels is very important. One advancement of regional cooperation would be the creation of a network where countries can share climate information.

Considering the importance for LLDCs to their improved connectivity, and the fact that they still lag behind in transport infrastructure (in terms of quantity, quality, and funding), Mr. Sheralizoda indicated that the LLDCs require support in building climate-resilient and sustainable infrastructure in order to reduce the direct losses of disruptions caused by climate change. A dedicated infrastructure funding facility for climate-resilient infrastructure for LLDCs will help our group.

Mr. Sheralizoda also called for increased capacity building and adaptation measures in Tajikistan's agriculture sector to reduce its vulnerability to disasters. He noted that adaptation measures would improve food security and livelihoods for Tajikistan and LLDCs in the region.

Mr. Sheralizoda spoke about the progress Tajikistan in investing in hydro power. The country is currently ranked sixth in hydropower and plans to export the renewable energy produced to neighboring countries. His hope is that not only will Tajikistan be able to achieve net zero emissions but that it will be able to help the region achieve it.

He noted that loss and damage have become a key concern for LLDCs. Finance to address loss and damage is urgently needed for LLDCs. He noted that the contribution of Tajikistan in terms of GHG emissions is minimal. Nevertheless, Tajikistan in its updated version of the Nationally Determined Contribution undertook enhanced commitment to reduce GHG emissions within 60-70%, and within 50-60% with significant attraction of international assistance. He concluded by underscoring that LLDCs need capacity building support in order to make progress on climate action. Financial support and technical support are of paramount importance to the LLDCs for implementing climate actions.

**Professor Petteri Taalas, Secretary-General of UN World Meteorological Organization** began by noting that there isn't just one crisis happening, but multiple occurring at this time. LLDCs are suffering not only a climate crisis but also a food crisis, fuel crisis and financing crisis as a result of the war in Ukraine. He stressed that despite all these ongoing crises, climate change was going to be the one with the biggest impact and the longest duration. He stated his belief that adaptation efforts will need to continue and expand in scope if they plan to tackle climate change.

Professor Taalas spoke about the 6% loss in glacier mass occurring this year in Switzerland and that he had seen this occurring the previous year in Tajikistan. He noted the importance of glaciers as a water resource in Central Asia. He stated this effect is happening worldwide and that many of these mountain glaciers will be gone by the end of this century. He explained that extreme weather events are also already guaranteed to keep happening until 2060, and that we need to build capacity to mitigate the negative impacts of climate change.

Professor Taalas discussed one mitigation measure that was to develop a global early warning system by 2027. The plan will give special attention to LDCs and LLDCs because of the notable lack of early warning systems present. He explained that they will invest in basic observing infrastructure as well as a delivery service component to provide this information to local farmers. He noted that the entire plan will cost \$3.1 billion dollars, of which half will be dedicated to infrastructure development and half to relief. He was happy to report that all donor countries had

pledged to contribute to the plan. In addition, the plan received support from the World Bank and the Green Climate Fund.

**Ms. Maria Helena Semedo, FAO Deputy Director-General** opened by highlighting the importance of agriculture to the GDP of LLDCs. In countries like Burundi and Ethiopia, it makes up over 30% of GDP. She noted that over three out of five households are smallholder farmers in dry/semi-arid lands. These areas are highly susceptible to soil erosion and rainfall scarcity. These farmers have low adaptive capacity and little in terms of reserve resources, making their livelihoods especially vulnerable to climate change impacts.

Ms. Semedo restated the earlier point that over half of land in LLDCs is classified as dryland, meaning that the effects of climate change, desertification, and land degradation are even more pronounced. To combat these effects, Ms. Semedo highlighted a few solutions. Sustainable forest and land management could restore 1/3rd of degraded arable land, cut greenhouse gas emissions and store up to 4 gigatons of carbon dioxide annually. FAO's programme<sup>1</sup> in support of Africa's Great Green Wall is one of FAO's sustainable land management and restoration solutions with LLDCs making up over half of the participating and partner countries. The Great Green Wall programme restores degraded land for sustainable production. The positive impacts of this programme are better food security, more jobs and giving people reasons to not migrate out of a country.

Ms. Semedo called for turning promises into action by engaging in smart bold climate investments and partnerships. In particular, she emphasized the need to invest in early warning systems and improve preparedness across LLDCs. By increasing preparedness vulnerable countries will be able to mitigate the long-lasting impacts on agriculture systems, reducing their future need for emergency assistance.

She called for an improvement in information frameworks across all stakeholders. The goal of both international organizations and LLDCs should be the establishment of a coherent evidence-based policy framework. She also emphasized that inclusivity must be at the heart of any policy solution. She stated that small scale farmers must be engaged since they are a critical part of the solution in the transition to a low emitting system.

**H.E. Dr. Madhav Karki, Climate Change Advisor to the Prime Minister of Nepal** began by detailing the estimated impact of climate change for Nepal and other mountainous countries. He noted that the estimated temperature increase during the last 45 years is already above 2 degree Celsius in the Himalayas resulting in the melting of glaciers. He noted that severe events of frequent droughts, floods, landslides and climate-induced disasters including extreme unseasonal floods are becoming new normal. Around 37% of the total land area is degraded resulting in food crisis, biodiversity loss, invasion by alien species, river siltation, and food and water shortages. He indicated that the rapid melting of Himalayan glaciers besides creating climate induced hazards is also contributing to sea level rise and expected to cause water shortages for over 1.5 billion people.

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<sup>1</sup> [www.fao.org/in-action/action-against-desertification](http://www.fao.org/in-action/action-against-desertification)

Dr. Karki informed the meeting that Nepal has recently approved its NDC Implementation Plan and Long-term Climate Finance Strategy for meeting the huge finance gaps to fund the enhanced NDC, National Adaptation Plan and Long-term Mitigation Strategy. He pointed out that the estimated financial need is around USD 46.4 billion by 2050, bulk of which will be used to build climate resilient communities, ecosystems, infrastructure development and institutional capacity enhancement. Nepal's huge water and hydro energy resources, rich mountain biodiversity and forests will play a key role in Nepal's adaptation, mitigation and resilience building plans to attain our net zero goal by 2045.

Dr. Karki noted that Nepal, besides being the water tower and clean energy source for South Asia, has globally recognized success stories of community-based natural resources management, local adaptation action plans (LAPAs) and community-based nature conservation to scale-up its adaptation, mitigation and resilience building plans. Scaling-up of these experiences will help the country achieve net zero deforestation, reduce methane production by 30% and replace 25% fossil fuels by clean energy sources.

Dr. Karki underscored that it is critical to conserve, restore and sustainably manage Nepal's forests, water, range lands and protected areas to support scaled up adaptation and mitigation activities – nationally and regionally. Since the climate and other crises are of trans-boundary nature, regional cooperation among Hindu Kush Himalaya (HKH) and LLDCs is vital to build resilient mountain communities and ecosystems. For this, proper leveraging of scaled-up and transparent international climate finance is critical. Equally vital is the need to develop and launch transformational trans-boundary and regional resilience building approaches. Cross-regional knowledge and experience sharing is always necessary to fill in the constantly emerging knowledge, information and data gaps as the dangerous interaction of multiple crises have high degree of uncertainty, unpredictability and extreme behaviors.

Dr. Karki concluded by stressing that High Mountains of most of the LLDCs are the “water towers” of the world and global hotspots for biodiversity. The true values of the ecosystem goods and services derived from these LLDC mountains are under-recognized, under-valued and poorly compensated. He called upon national, regional and global development partners to help LLDCs to scale-up adaptation, mitigation and resilience building projects leading to sustainable mountain development for achieving shared prosperity and protection of our people and planet.

**Mr. Simon Springett, UN Resident Coordinator to Moldova** indicated that the Republic of Moldova faces many vulnerabilities related to the impacts of climate change. He noted that Moldova was the 4th country to submit their revised Nationally determined contributions (NDC) in 2020. He emphasized the ambitious mitigation targets for green-house gas reductions of Moldova, stating that they are the 2nd most ambitious targets in all of Europe and Central Asia. He noted that Moldova's NDC has adaptation components focusing on agriculture, forestry, water, health, energy and transportation. He stressed that NDCs for all LLDCs will not be accomplished without strong partnerships including on external financing, technology transfer and technical cooperation.

He then explained the multiple crises affecting Moldova. There is a drought related failed harvest, supply chain disruptions, 34% inflation, 21% base bank rate and a six-fold increase in gas prices.

He noted that because of this there was a low fiscal space for Moldova to invest in climate finance, being ranked lowest in terms of environmental protection in Europe. He noted that Moldova only invests 0.5% of its GDP to environmental protection compared to the European Union average of 2%.

Mr. Springett commented on the impact for the region of the war in Ukraine. He talked about how the lack of energy diversity and limited renewables in the area will result in dramatic increase in deforestation this coming winter as people harvest wood for fuel. He noted that this will both harm the environment and people's health.

Mr. Springett believed one solution for Moldova was the use of more innovative financing tools such as grant-based finance, budget support, and environmental vertical funds. He indicated that it will also be important for the country to unlock private sector financial flows. Moldova could focus on de-risking financial opportunities to improve financing flows to green energy. It will also be important for the country to develop instruments to ensure ability for direct budget support and meaningful climate related conditionalities to loan-based financing. Mr. Springett ended by stating that moving forward it was important to improve engagement of civil society organizations. He believes that involving those who work on the ground, organizations can improve effectiveness and better manage risk.

### **Interactive discussion**

In the ensuing discussion, participants discussed the role of young people in climate action. It was noted that Moldova uses a youth advisory board to make sure their solutions are aligned in a way that engages the youth. In Nepal, young people are the focus of education efforts being able to raise awareness and mobilize citizens. The FAO noted that their focus on inclusiveness has a youth component, believing that youth engagement can yield innovative solutions. Participants underscored that the youths were affected by climate change and should be involved in identifying and implementing the solutions.

Participants also discussed the question of whether to focus on adaptation or mitigation efforts or to try and strike a balance between the two. Participants noted that it depends on the country and context, noting that a lot of adaptation efforts provide co-benefits to mitigation. Hence it was important to pursue both adaptation and mitigation.

Participants also discussed the need to better utilize in a sustainable manner the resources that LLDCs have such as the rich biodiversity, the forests, and agriculture so as to generate higher incomes to support their development efforts and improve livelihoods. They underscored the need for green technologies and for support to join the regional value changes and to access the market competitively. They called for concessional loans and increased market support, believing that it would improve both mitigation and adaptation efforts.

### **Conclusion**

**H.E Mr. Collen Kelapile** thanked all speakers for their contributions. He indicated that the LLDCs need the required support from the UN system organizations. He underscored the importance of early warning mechanisms and better disaster preparedness. He asked all stakeholders to be inclusive of the youths in climate change actions and enable them to be true innovators.

He underscored the need for financial and technical support towards institutional and human capacity for development and implementation of Nationally Determined Contribution and National Adaptation Plans. He indicated the need for increased technology transfer towards mitigation and adaptation. And increased climate finance to LLDCs, and capacity building support on how to better access financing.