



## 21<sup>st</sup> Conference of Parties of United Nations Framework Convention on Climate Change

### LLDC Side Event: Supporting Climate Change Adaptation and Mitigation Needs in Landlocked Developing Countries

Paris, 6 December 2015

**Landlocked Developing Countries (LLDCs)** are developing countries that lack territorial access to the sea and therefore face double challenge of access and development. 32 countries: 16 in Africa, 12 in Asia, 2 in Europe and 2 in Latin America. Population: 470 million inhabitants. Average Population Growth: 1.8 percent



# Concept Note

*“Agriculture is the dominant sector of LLDCs` economies, contributing about 30 percent of GDP. Most economies of LLDCs are agro-based and highly sensitive to economic shocks, economic crises, climate change, land degradation, desertification, droughts and glacier outbursts. In regions like East Africa, Sahel and East Asia, agriculture in many LLDCs accounts for more than 35 percent of GDP. Agricultural exports play significant role as well as they contribute on average 26.2 percent of GDP. With the effects of climate change, agricultural GDP and overall economic GDP of many LLDCs become subdued” (UN-OHRLLS, 2013).*

## I. Background

Landlocked Developing Countries (LLDCs) face special challenges that are linked to their geography, including remoteness from major international markets, inadequate transport infrastructure and high transport and transaction costs. As a consequence, many LLDCs find themselves marginalized from the world economy, cut-off from the global flows of knowledge, technology, capital and innovations, and unable to benefit substantially from external trade. This affects their development prospects, including sustained economic growth, poverty reduction and the achievement of internationally-agreed goals.

The Vienna Programme of Action for Landlocked Developing Countries, adopted in Vienna, Austria, in November 2014, for the decade 2014-2024, set an overarching goal of addressing development needs and challenges of those countries in a more coherent manner and thus contributing to an enhanced rate of sustainable and inclusive economic growth which can help eradicate poverty. In particular, the Vienna Programme of Action has set objectives to promote structural economic transformation, which is at the heart of a dynamic and sustainable economic growth process, with an emphasis on industrialization, value-addition, value chains and institutional and human capacity development.

## II. Impact of Climate Change on Landlocked Developing Countries

UNFCCC (2008) defines climate change as “change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods”. The main features of climate change are increases in global temperature (global warming) as a result of increased accumulation of greenhouse gases in the atmosphere; changes in intensity, frequency and distribution of precipitation across space and time; melting of ice caps and glaciers and reduced snow cover; and increases in ocean temperatures and ocean acidity – due to seawater absorbing heat and carbon dioxide from the atmosphere. As a result of global warming, incidences of extreme events such as tropical cyclones, floods, droughts and heavy precipitation, are expected to rise even with moderate temperature increases. Changes in some types of extreme events have already been observed, for example, increases in the frequency and intensity of heat waves and heavy precipitation events. For instance an increasing rate of warming has been observed over the past 25 years, and 11 of the 12 warmest years on record have occurred in the past 12 years. The IPCC projections indicate that global warming will continue to accelerate during the 21st century.

Landlocked developing countries are vulnerable to climate change, including desertification and land degradation. The Vienna Programme of Action takes note that landlocked developing countries are vulnerable to climate change, which is exacerbating desertification and land degradation. Landlocked

developing countries remain disproportionately affected by, inter alia, desertification, land degradation and drought as an estimated 54 percent of their land is classified as dryland<sup>1</sup>. Of the 29 countries in which at least 20 percent of the population is estimated to live on degraded land, 14 are landlocked developing countries<sup>2</sup>. Some landlocked developing countries are also affected by flooding, including glacial lake outburst floods. Therefore, climate change, desertification, land degradation and drought constitute serious challenges to the implementation of the Vienna Programme of Action.

Desertification and land degradation, exacerbated by climate change, are emerging to be the greatest environmental challenges confronting the world. These challenges have far-reaching consequence as they trigger a vicious circle of impoverishment, migration, food insecurity and conflicts and poverty. Among the worst affected countries are the LLDCs, which in addition to slower economic growth, are faced with increasing environmental challenges resulting mainly from desertification and land degradation.

In Africa, two thirds of the continent falls under deserts or drylands which are concentrated in the Sahelian region, Horn of Africa and Kalahari. The IPCC (2004) projects Africa as the continent most susceptible and vulnerable to desertification and land degradation and likely to bear the greatest impact of climate change. The Sahel region, home to most of the LLDCs, covers the largest part of Africa prone to desertification due to its highly fragile ecosystem easily affected by climatic change and human activities. It is estimated that two-thirds of Africa is already degraded with land degradation affecting 485 million people – about 65 percent of Africa's population. Hence desertification and land degradation have been singled out as symbols of Africa's greatest environmental challenges (ECA, 2007:8, WHO, 2005:7). Climate change is set to worsen matters by increasing the area susceptible to drought, land degradation and desertification in the region. Under various climate scenarios, IPCC projects a 5-8% increase in arid and semi-arid lands in Africa.

In Asia, many LLDCs are also the victims of desertification scourge. The expansion of the Gobi desert has become a major source of environmental concern in Asia. According to China's Environmental Protection Agency, the Gobi desert has expanded at a rate of 4,000 square miles per annum (as observed for the period 1994 -1999). One country badly affected by the Gobi desert encroachment is Mongolia, the second largest landlocked country in the world. It is estimated that 41 percent of Mongolia is already severely affected by desertification. With 30 percent of its population being nomadic or semi-nomadic, this type of livelihood promotes severe land degradation in Mongolia ((NEASPEC Secretariat, 2012)).

According to UNEP about 20 per cent of irrigated land worldwide is salt-affected, with a significant amount lost from production every year as a result of salinity. In North-East Asia human-induced desertification is one of the major physical factors that is intensifying the severity and frequency of dust and sandstorm hazards. These occur either by explosion of the top soil caused by long-term loss of vegetation, or due to the sand sources that mainly relate to geological processes of mountain erosions and sediment accumulation in the basin, which cannot be wholly eliminated (ADB, 2005).

LLDCs are vulnerable to the impacts of climate change, land degradation, and desertification including on agricultural production, food security, energy constraints, transport infrastructure, viability of inland fisheries as well as water availability, erosion of biodiversity, and drought and human health. Most of the LLDCs depend on exports from the agricultural sector which is vulnerable to climate change effects. The outcome of the Rio+20 Sustainable development conference noted that desertification, climate change, land degradation and drought continue to pose serious challenges to the sustainable development of developing countries including LLDCs.

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<sup>1</sup> Calculated from Global Environment Outlook data, United Nations Environment Programme.

<sup>2</sup> See The Vienna Programme of Action, p 8-9

### **III. Responding to Climate Change in LLDCs: Mitigation and Adaptation**

In the face of climate change the global community, nations and local communities are undertaking action along two primary tracks: **mitigation** – the process of reducing greenhouse gas emissions and, thereby, associated climate change; and **adaptation** – the process of adjusting in response to, or in anticipation of, climate change.

#### **3.1. Adaptation and Adaptive Capacity**

Adaptation is the process of adjusting in response to, or in anticipation of, changed conditions. In the climate change context, more specifically, it is adjustment in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. Adaptive Capacity, according to IPCC WG II, is the “potential or ability of a system, region, or community to adapt to the effects or impacts of climate change”. In anticipation of foreseeable shocks, vulnerable communities have long employed adaptive measures. Today adaptation is considered a central element in societies’ efforts to cope with the expected shocks and climatic shifts associated with climate change. In the climate change context, adaptation can take the form of autonomous, reactive, or anticipatory action.

#### **3.2. Autonomous adaptation**

Autonomous adaptation to climate change is essentially an unconscious process of system-wide coping, most commonly understood in terms of ecosystem adjustments. Reactive adaptation, as the name implies, involves a deliberate response to a climatic shock or impact, in order to recover and prevent similar impacts in the future. Anticipatory adaptation involves planned action, in advance of climate change, to prepare for and minimize its potential impacts. Such actions can aim at enhancing the buffering capacities of natural systems in the face of climate extremes.

Many Landlocked developing countries have put in place adaptation and mitigation policies, but they lack capacities and resources.

### **IV. Objective of the side event**

*Goal 13 of the 2030 Agenda for Sustainable Development aims at taking urgent action to combat climate change and its impacts, including:*

- *Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;*
- *Integrate climate change measures into national policies, strategies and planning;*
- *Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;*
- *Promote mechanisms for raising capacity for effective climate change-related planning and management.*

Therefore, in that context, the Republic of Zambia, in partnership with the UN-OHRLLS and UNFCCC are organising a meeting on “*Addressing Climate Change Adaptation and Mitigation Needs in Landlocked Developing Countries*”.

The meeting aims, first and foremost, at information sharing with different stakeholders, the UN system, LLDC Member States, Civil Society, and Donor community on the impact of climate change on LLDCs. The Meeting is expected to come up with concrete ideas and recommendations on how to achieve strengthening resilience, supporting adaptation and mitigation needs of LLDCs, in particular, with regard to the fully implementation of the Vienna Programme of Action for LLDCs for the decade 2014-2024, adopted last December 2014 by the UN General Assembly.

### **Issues to be discussed:**

1. Review how climate change is affecting the overall development of LLDCs, in particular, the implementation of the Vienna Programme of Action;
2. Review the linkages between the Vienna Programme of Action and the 2030 Agenda for Sustainable Development, and assess how Goal/Target 13 of the 2030 Agenda for Sustainable Development can be achieved in LLDCs;
3. Mobilize additional resources to support the LLDCs, in particular proposal for dedicated funding for the landlocked developing countries.
4. Share experiences and concrete recommendations important for accelerating the implementation of the 2030 Agenda for Sustainable Development and the Vienna Programme of Action.

### **Expected outcome**

The expected outcome of the meeting will include recommendations on how to support the LLDCs to address resilience, adaptation and mitigation issues in the context of Goal 13 of the 2030 Agenda of Sustainable Development, and to achieve the objectives of the Vienna Programme of Action, in particular with regard to structural economic transformation of LLDCs, poverty eradication and sustainable development.

### **Participation**

Participants invited to attend the event will include High-level officials from LLDCs and other Member States, high-level officials of the United Nations, UN agencies and development partners, including Friends of LLDCs, multi-lateral institutions, civil society, private sector, academia, and NGOs.

### **Documentation**

OHRLLS will make available the Vienna Programme of Action and the Report on climate change, desertification and land degradation on LLDCs that will serve as the basis for facilitating the discussions.

Invited experts and partners will also be requested to circulate background material related to the issues that they will be presenting on.