ECOSOC Special Meeting

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Impacts of the 2015/16 El Niño phenomenon: Reducing risks and capturing opportunities

ECOSOC Chamber, UN Headquarters 6 May 2016, 10am - 1 pm

Organized by the United Nations Department of Economic and Social Affairs (DESA) in collaboration with the United Nations Office for Disaster Risk Reduction (UNISDR) and the World Meteorological Organization (WMO)

DRAFT CONCEPT NOTE

Introduction

The 2015/16 El Niño event has been one of the strongest on record and many countries have already taken action. While it has passed its peak strength, it remains strong and will continue to influence global climate patterns with impacts in some regions expected still into the second quarter of 2016. The General Assembly, in its resolution 70/110, invited the Economic and Social Council¹ to devote adequate time to address the socio-economic and environmental impacts of 2015/16 El Niño phenomenon as a global emergency issue, building on the expertise of the regional commissions, specialized agencies and relevant bodies of the UN system. The Economic and Social Council is convening a Special Meeting on 6 May 2016 to bring this issue to the attention of the Council. The meeting will provide an opportunity to receive current update on the phenomenon and its economic, social and environmental dimensions, and to discuss measures undertaken by countries to increase their resilience. A risk-informed approach, as outlined in Sendai Framework for Disaster Risk Reduction 2015-2030, provides a lens for a dialogue and future required action on El Niño.

Background

El Niño² is the warm phase of the El Niño Southern Oscillation (commonly called ENSO) and is associated with a band of warm ocean water that develops in the central and east-central equatorial Pacific (between approximately the International Date Line and 120°W), including off the Pacific coast of South America. ENSO events have widespread effects on seasonal weather and climate through their influence on large scale circulation patterns. It has pronounced atmospheric consequences, including by modifying major weather patterns such as those associated with monsoons. The association between El Niño and the occurrence of weather and climate extremes, including droughts, heavy rains, floods, extremely hot or cold spells in many parts of the world is well-defined. For instance:

- Large parts of South America experience heavy rains and flooding, while in Central America's dry corridor and parts of the Caribbean, drought conditions prevail;
- in South and Southeast Asia and many Pacific islands, El Niño is associated with drier conditions and drought; and
- in the Greater Horn of Africa conditions tend to be much wetter than average in El Niño years.

¹ In line with its mandate, ECOSOC periodically hosts special meetings to address global development emergencies or crises, to raise awareness and to serve as a high level policy platform for coordination of actors working on a specific situation to develop a strategic response. To this end, the Council organized special meeting on the <u>African food crisis</u> and <u>Avian Flu</u> in 2005, global food crisis in <u>2008</u> and <u>2013</u>, and the devastating earthquake in Haiti in 2010, <u>Typhoon Haiyan</u> in the Philippines in December 2013, <u>Ebola</u> in December 2014 and the Zika Virus in February 2016.

² El Niño means *The Little Boy*, or *Christ Child*, in Spanish as it was originally recognized by fishermen off the coast of South America in the 1600s with the appearance of unusually warm water in the Pacific Ocean around Christmas.

Extreme weather can have profound implications for people's lives, health and livelihoods – in some cases, where communities are both exposed and vulnerable the impacts can be devastating and deadly. Health effects of drier El Nino conditions include increased levels of acute malnutrition associated with food insecurity and vulnerability to infectious diseases, as well as higher incidence of respiratory diseases due to wildfires and heath stress caused by heatwaves. Flooding and intense rainfall have been associated with large outbreaks of water-borne diseases (such as cholera) and vector-borne disease outbreaks, as well as population displacement, damage to infrastructure and disruption to basic services. People whose livelihoods depend on agriculture, fisheries and livestock are particularly affected. In other cases, where capacities are strong, advance knowledge of seasonal weather can help farmers to plan better and realize profit. Information on the socio-economic impacts is still emerging.

The meteorological and oceanographic data that allow El Niño and La Niña episodes to be continuously monitored and forecast are drawn from national and international observing systems. The exchange and processing of these data are carried out under programmes coordinated by the World Meteorological Organization (WMO). According to the WMO, the 2015-16 El Niño is one of the strongest on record, being comparable with the 1997/98 and 1982/83 events. The 1997/98 El Niño led to loss of lives, destroyed infrastructure, depleted food and water reserves, displaced communities and resulted in disease outbreaks. Estimates of its global impact ranged from US\$32 billion to US\$96 billion.

Currently the El Niño is at moderate levels, and is likely to end in the second quarter of 2016. The surface and subsurface of the central tropical Pacific Ocean has cooled in the past fortnight and the NINO3.4 index, a key El Niño indicator, is now below +2 °C for the first time since September 2015. History and model outlooks indicate that neutral conditions are slightly favored, with a possible transition to La Niña conditions during the boreal fall of 2016. Short term fluctuations in the various El Niño Indicators will continue, particularly during the southern tropical cyclone season. El Niño has already produced significant global impacts and, although it's weakening, it will continue affecting temperature and precipitation patterns worldwide well into the second quarter of 2016.

While the environmental, humanitarian and physical impacts of El Niño can be immediately evident, data on the economic effects is sparse and its impact on global markets underappreciated. However, in recent years, the impact of El Niño on global non-fuel commodity prices, including food and raw agricultural materials and industrial metals, is increasingly evident. The economic effects of El Niño within and between countries can vary considerably, predominantly determined by the geographic size of a country, the contribution of primary industries to a country's economy, and the more diversified a country's economy. As the 2015/16 El Niño is set to be one of the strongest on record, a better understanding of its direct economic and social impact is essential to build back better and mitigate the impacts of El Niño in the future. For example, in Indonesia a 1% drop in GDP is currently predicted due to the impact of severe drought on agriculture, agro-based industries, hydropower and mining. The impact is already being felt by the most vulnerable segments of society, including small-scale farmers and the urban poor. Understanding the socio-economic impact of El Niño is therefore vital to curtail direct disaster economic loss, to reduce the number of people affected by disasters, and to ensure a live of dignity for all by 2030.

The Sendai Framework for Disaster Risk Reduction 2015-2030 sets out internationally agreed targets, principles and priorities that can help governments and their partners to achieve a substantial reduction of disaster risk and losses. Countries, with support of regional inter-governmental organizations and UN organizations are working to:

- Understand the vulnerabilities and exposure of different communities and sectors and improve scientific capacity to predict the physical aspects of the El Niño phenomenon particularly as it is affected by global climate change.
- Strengthen governance to manage risk and show, for instance, the role of coordination within and
 across sectors and how clear responsibilities and cooperation can ensure understanding of El Niño
 conditions is effectively communicated to local communities who are engaged and supported to
 reduce risks and respond appropriately.

• Strengthen disaster preparedness, including early warning and contingency planning, to manage the impacts of the current phenomena, raise the challenge of reliable sources of prediction, translate these into impacts and address the information needs of key sectors and the most vulnerable communities.

These measures are sufficiently important that governments agreed to a global target, in the Sendai Framework, of "substantially increasing the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030". The importance of risk management was also underscored in the 2030 Agenda for Sustainable Development which calls for the development and implementation of a holistic disaster risk management at all levels, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.

The Global Framework for Climate Services (GFCS), an initiative of the United Nations system led by WMO, provides mechanisms for coordinated actions and support to countries to enhance and improve the quality, quantity and application of climate services worldwide. It draws on a wide range of actors to integrate climate information and decisions process and contribute to disaster and climate resilience. It contributes directly to countries efforts to understand risk related to the physicals aspects of El Niño, as part of the ENSO cycle, and to take remedial action, as call for by the Sendai Framework and the UNFCCC agreements.

Objectives of the special meeting of ECOSOC

This meeting will draw on country expertise and recent experience along with experts on the topic to:

- Present the current status of the 2015/16 El Nino, its economic, social and environmental impacts to date and predictions for the remainder of 2016.
- Hear of measures and practices by countries to manage disaster risk and socio-economic impacts of the 2015/2016 El Niño in sectors such as health, agriculture and water resources.
- Draw lessons from the 2015/16 El Niño and make action-oriented recommendations to address the risk of socioeconomic and environmental impacts of future El Niño phenomena.
- Examine how the United Nations system, regional and international organizations, civil society organizations, the private sector and the scientific community can help countries address the El Niño phenomena.

Expected Outcome

The outcome of the meeting will be a Presidential Statement, highlighting the main conclusions and policy recommendations emanating from the discussions that will be transmitted to the General Assembly. The outcome will inform the report of the Secretary-General on "Disaster Risk Reduction", that the General Assembly requested to include a section addressing the socioeconomic and environmental impacts of the 2015/16 El Niño phenomenon, as well as the 2016 plenary meeting of the General Assembly that will be convened to discuss action-oriented recommendations to address its socioeconomic and environmental impacts.