

## **COMMENTS OF MEXICO ON CLIMATE CHANGE AND SECURITY**

According to the perspective of multidimensional security, based on new threats to the internationally society and on the basis of the seven spheres of human security defined by the 1994 UNDP Human Development Report (economic, political, personal, environmental, community, food, and health), security refers to stability conditions that are to be beneficial for the development of individuals, of a country, or of the international community.

International recognition of the importance of security as a means to achieve development is related to the achievement of the Millennium Development Goals; to the evolution of the nature and the scope of security, as well as its linkages to diverse global problems.

In this sense, impacts, magnitude and projected persistence of environmental, social and economic phenomena derived from climate change turn this issue in a priority matter that has direct repercussions in all abovementioned security spheres.

In accordance with some scenarios, intensification of the hydrological cycle, floods, droughts, increase and intensity of extreme weather events, together with the possible disappearance of the ice-sheet, melting ice caps, and desertification are only some of the impacts that, *inter alia*, will result in a cost of approximately 5 to 20 % of the global GDP in the following years and that will lead 800 million people to hunger conditions, if early actions are not taken (Stern Review); thousands of human beings will suffer from water scarcity, and more than 200 million people will become environmental refugees by 2050 (UNHCR).

Climate change adverse effects constitute a challenge for human sustainable development. A response measure to this problem is the consideration of climate change impacts in public policy assessment and design, by taking into account the needs of vulnerable sectors of the society, owing to factors such as geography, poverty, gender, age, indigenous or minority status and disability.

### **Linkages between climate change and security**

Climate change could derive in a global and progressive crisis that could threaten human survival in the Planet, turning this phenomenon in a potential threat with a differentiated impact to diverse regions. An in-depth analysis of the linkage between climate change and security requires further consideration of the following items:

- ❖ Water scarcity. Water constitutes a vital resource and its natural cycle is likely to be modified as the temperature increases, resulting in, *inter alia*, changes in precipitation patterns, as well as in floods and droughts. According to the Stern Review “a 2°C

increase will be problematic for 1 – 4 billion people that will experience water scarcity in Africa, Middle East, in the South of Europe and in South and Central America, while 1 – 5 billion people, mainly in South and East Asia, will be receiving more water”. It is estimated that an important number of people will suffer by ice melting in highlands, for flooding in spring or scarce water when ice has disappeared. For some scenarios, the main affected areas are those in the Himalayas and the Andes.

- ❖ Food. Evaporation of an important amount of water stored in soils as well as modifications to the carbon cycle will make lands to lose its capacity of production and fertility. In the case of land productivity, vulnerable areas are nearer the Equator. In addition to this problematic, it is important to take into account increase in global population and consumption well above natural limits of the Planet.
- ❖ Health. Temperature increase modifies several habitats and allows for dissemination of disease vectors such as those of dengue and malaria. In the event of extreme weather there is likelihood for a larger incidence of stomach and parasite diseases that can be mortal for vulnerable sectors of the society. In accordance with an analysis made by the World Health Organization it is estimated that “climate change is responsible since 1970 of nearly 150,000 deaths per year as a result of the increase in diarrhea, malaria and malnutrition”.
- ❖ Migration and refugees. It is anticipated that environmental catastrophes that could exist derived from climate change could provoke an increment in environmental refugees, a larger pressure on natural resources and most likely, domestic and international conflicts.

States face the challenge of ensuring, protecting and providing necessary strategic resources for its growth and development. Climate change could derive in problems to access energy and water sources.

Problems produced by climate change could sharpen priority issues in specific agendas of States, including the achievement of the Millennium Development Goals, as well as National Development Plans.

### **Climate change in Mexico**

Geographical, climatic, orographic, and hydrologic characteristics of the country, as well as economic and social conditions turn Mexico as highly vulnerable to hydro-meteorological events.

In Mexico, climate change impacts could lead to an increase in the intensity of droughts, rain and tropical cyclones, exacerbating inequities in employment, health, and access to food, water and other resources. All of these factors could affect security conditions in different regions and sectors in the country.

One of the climatic phenomena that affects temperature associated with severe droughts in the North and Central part of the country is El Niño. It is estimated that climate change

effects of El Niño could increase, exposing our country to extreme weather events and consequential natural, economic and human disasters.

On the other hand, main economic impacts associated with climate change are related to a possible crisis due to the scarcity of goods and services, for adverse impacts on energy, transportation and distribution infrastructures.

In the near future, climate change could exacerbate social, economic and political problems in the country. Facing these scenarios, Mexico is working in mainstreaming the agendas of climate change and natural disaster reduction as part of its planning process, as it is described below:

- The National Development Plan 2007 – 2012 is centered on a prevention approach, taking into account risk management and adaptation measures to extreme weather events and climate change.
- Through the creation of an Inter-ministerial Commission on Climate Change the symbiosis between climate change and disasters and risk management has been institutionalized.
- The development of a National Strategy on Climate Change and the elaboration of a Special Program that identify adaptation policies and measures and reduction of disasters.

In Mexico there are some assessments that include a relationship between climate change and social factors that could break the equilibrium on security. An example of this is a vulnerability analysis in Tlaxcala, a small state in the Centre of the country, as part of an adaptation project in Central America, Mexico and Cuba, where the following conclusions were reached:

- Peasant migration to the United States could be partially induced by adverse climate conditions for agriculture.
- A phenomenon in the rural Mexican society in the last decades is its *womanization*. Rural women population is a highly vulnerable group to climate change conditions.

Hence, Mexico considers fundamental to enhance national and global actions for the mitigation and adaptation of climate change in a comprehensive and long term perspective.

With the inclusion of climate change in public policy making, as well as in the security agenda, it is quite likely to improve standards of living in such areas as health and poverty reduction, decreasing social inequity and ameliorating access to basic resources. This could have a positive impact in individual, national and global security aspects. In practical terms, co-benefits derived from climate change adaptation and mitigation actions could contribute in the stability of social security of countries.

Finally, it is recommended that the Secretary General Report includes references to instruments and international initiatives that have assessed the linkage between climate change and security and the need to act in consequence. As an example, the Organization of American States adopted in 2003 a Declaration on Security in the Americas whose paragraph 41 establishes:

*We recognize that global climate change could constitute a threat, concern, or challenge for the security of the states of the Hemisphere. We commit to working in coordination in order to mitigate the adverse effects that global climate change could have on our states and to develop cooperation mechanisms in accordance with the international efforts in this field.*