

CLIMATE CHANGE AND ENVIRONMENTAL POLICIES IN MEXICO

Rogelio Gonzalez Garcia*
Victor Hugo Paramo Figueroa**
Carlos Sanchez Rivas***
Ramiro Dominguez Torres****

I. INTRODUCTION

Few scientific issues in recent years have attracted greater public interest and political attention than the increase of carbon dioxide and other gases in the atmosphere and the possible consequences for the earth's climate. The greenhouse effect is an integral part of the warming process that sustains life on earth. It is the result of several gases in the atmosphere—carbon dioxide ("CO₂") produced by both natural sources and the burning of fossil fuels, methane, ozone, nitrous oxides, and human made chlorofluorocarbons ("CFCs")—which effectively trap heat radiated from the earth's surface. The net effect of these so-called "greenhouse gases" is a raising of temperature beyond that which would occur without their presence in the atmosphere.

The greenhouse effect has long been recognized by scientists as one of earth's natural phenomena. Without it, our planet's average temperature would oscillate around 0°F, freezing the Earth into a barren sphere similar to the moon. Many terrestrial ecosystems in Latin America are already under severe stress due to inappropriate human activities. This region is currently exhibiting a generalized ecological degradation that is expected to continue and probably accelerate during the coming decades unless severe policy changes are implemented. This is clear even without taking into account the impact of the forecasted climatic change due to the greenhouse effect. There is an urgent need to identify and implement policies directed at changing the patterns of development of the countries in this region toward a more environmentally, socially and economically sustainable development trajectory.

* Director of the Area of Studies, General Director for Prevention and Control of Environmental Pollution, Subsecretariat of Ecology, Secretariat for Urban Development and Ecology, Republic of Mexico.

** Deputy Director of Studies, Air Quality Management, Secretariat Urban Development and Ecology, Republic of Mexico.

*** Assistant Director, Direction of Studios, Republic of Mexico.

**** Coordinator, Air Quality Administration Program for Critical Zones, Republic of Mexico.

Latin American exploitation of resources is designed for primary sector modernization, based on developed country models. Productive modernization of rural resources has been part of social policy in Latin America on the premise that high rates of resource exploitation are necessary to modernize and develop the countryside.

One of the largest global "energy problems" is the unequal distribution of carbon dioxide emissions between industrialized and developing countries. Latin America's current contribution to global CO₂ emissions is estimated at between 12.5% and 14.4%, of which only 4% is due to the burning of fossil fuels—the rest is attributed to deforestation, mostly in the tropical areas. Energy consumption varies between industrialized and developing countries as well. For example, an average American citizen spends 20 times more energy than his Nigerian counterpart. The difference between the *per capita* energy consumption in the richest and poorest communities of the world is near a factor of 100.

Commercial energy consumption is growing fast. Latin America's contribution to the emission of CFCs is very small. No estimates are publicly available regarding the emission of the other greenhouse gases. Emissions from developing countries are growing in order to meet their development requirements. Over time, these developing countries are likely to represent an increasingly significant portion of global emissions. Therefore, it is necessary to promote a rapid transfer of technologies to developing countries—on a preferential basis—to help the monitoring, limiting or adapting to climate change. This transfer should be undertaken without hindering the countries' on-going economic development. It is natural that achieving economic growth is given priority, given the critical economic situation prevailing among the populations of developing countries. Narrowing the gap between the industrialized and developing world countries would provide a basis for full partnership of all nations in the world and would assist developing countries in dealing with the climate change issue.

Industrialized and developing countries have a common but varied responsibility in dealing with the problem of climate change and its adverse effects. The former should take the lead in two ways:

- (1) Until now, a major part of emissions affecting the atmosphere originated in industrialized countries where the current ability to take action against climate change is greatest. Industrialized countries should adopt domestic measures to limit climate change by adapting their own economies toward a goal of commitments to limit future emissions.
- (2) Industrialized countries should cooperate with developing countries on an international level, without standing in the way of the latter's development. Such cooperation should take the form of

providing additional financial resources; appropriate transfers of technology; close cooperation in scientific observation, analysis and research; and technical cooperation geared to prevent and manage environmental problems.

II. THE MEXICAN SITUATION

Mexico is involved in serious efforts to develop and apply coherent environmental and energy policies to prevent the impact of human activities on the global ecosystem. However, taking into account Mexico's actual level of development, a balance is required between environmental protection and Mexico's industrial, energy, urban, and economic development policies. Also, Mexico's environmental policies on a local as well as national level must be designed in accordance with a policy of sustainable development. It is fair to say that Mexico is at an intermediate development level, considering its current economic characteristics. The goals of Mexico's energy policies at this stage of its development are geared toward reducing to minimum levels the emission of pollutants that could contribute to global warming in Latin America. However, it must be recognized that as Mexico develops it will increase its energy consumption and, thus, its emissions. At the same time, these increases should be made with efficient use of energy and rational use of natural resources.

Mexico is making a major effort to protect the environment and is starting specific programs to combat global warming. For example:

- (1) An efficient *Program for Energy Saving* has been developed. Since approximately 80% of Mexico's power generation is based on petroleum consumption, any energy savings obtained through demand management will reduce thermal generation and its contribution to emissions of greenhouse gases.
- (2) A *reforestation* policy based on the rational use of natural resources is in place. Because of the time required to develop the forest, this policy recognizes that natural resource use regulation should prioritize the goal of preservation of biodiversity.
- (3) Finally, Mexico encourages scientific and research activities related to climate change and global warming.

III. INTERNATIONAL EFFORTS

On the global scale, Mexico supports efforts towards international agreements dealing with measures and guidelines for global climate protection. These agreements should respect countries' internal legislation and development plans. Additionally, it is necessary for countries to adopt the concept of *differential responsibility*, considering the emission rates among nations are different, but it should not be forgotten that international cooperation is an important element in accomplishing different national efforts. The traditional system of international law is based on the concept of national sovereignty. This concept does not permit solving the problems of cross-border pollution and protection of localized areas outside of any one nation's jurisdiction. Therefore, it is necessary to find ways to solve cross-border environmental problems without violating national sovereignty.

Mexico supports the United Nations Conference on Environment and Development ("UNCED"), which will take place in Rio de Janeiro at a chief-of-state level in June, 1992. The negotiations for this conference have been realized in three distinct forums: (1) environment and development under the auspices of the UNCED, (2) a convention on climatic change, and (3) a convention on the conservation of biodiversity. Only through this type of international dialogue and cooperation, combined with a respect for self-determination and the rights of developing countries, will such efforts effectively combat the problem of climate change and global warming.

