

**Ibarrarán, Maria Eugenia & Boyd, Roy. (2006) *Hacia el Futuro: Energy, Economics and the Environment in 21st Century Mexico*. New York: Springer. ISBN 1402047711. 234 pp.**

Reviewed by Roshani Dangi, March 2007

The book discusses several burning issues of today's world, greenhouse gas emissions and climate change, forecasting the impact of climate change, energy use in Mexico, different economic theory/ tools, emission control, the Kyoto Protocol, the dynamic general equilibrium model, simulation results under perfect and imperfect competition and emissions trading at intersectorial and international level.

The whole book is divided into two parts: the first part contains information about the introduction, green house gases and climate change, forecasting the impact of climate change, energy use in Mexico, economic tool and the Kyoto Protocol. In the second part there is information about different model and its result and conclusion.

In the first chapter the author generally explained the content that is covered in each chapter from two through ten. In the second chapter the author gave general introduction about chemical reactions of greenhouse gases and some evidence of climate change and how it is being caused, which chemicals are major contributors and their source of generation, models used to simulate the affect of climate change and different variables used in analysis and what ecological system being affected by climate change. This chapter also gives an overview of why developing countries will be more affected than developed countries. The authors discuss which countries are the major green house gas (GHG) contributors and how economic activity in these countries is affecting the

emission rate. The authors explain why GHGs emissions are increasing in Mexico, and what different economic mitigation tools and policies used.

The third chapter explains about the emission rate of the different Latin American countries and notes that Mexico is the 13<sup>th</sup> largest GHG's emission country worldwide but economically not even in top 70<sup>th</sup> rank. To satisfy the increasing rate of population, it has to grow which will lead to even more high emission. This chapter also highlights industrialization and economic growth in Mexico and how these activities change land use and energy use. The authors discuss why many Latin American countries are vulnerable to climate change and increase in CO<sub>2</sub> emissions will consequently affect Mexico through increased drought, sea level rise, water scarcity, erosion, significant change in rainfall pattern and hydrological catchments, increased desertification, decrease water table, reduction in forest cover, major effects in agricultural production and forest ecosystems, as well as in health. They also explain the policy adopted in Mexico to reduce emissions and discuss the efficiency of the policy.

The fourth chapter explains how the demographic and spatial distribution of people affects the emission rate and how urbanization and subsidies affect in energy use. Several Latin American countries are used as examples to explain energy use and the policy impact on energy quantity, emissions from different sectors, market failures. The authors argue that government intervention and monopoly does not work and may have a negative impact leading to increased use of energy and inefficiency.

Chapter five explains different measures necessary to control and mitigate emissions. The different economic tools and their pros and cons are discussed as well as international views about these tools in Latin America. In chapter six, a different

computer model is introduced to analyze the impact of different policies and in chapter seven through eight simulations of results performed under different scenarios. In chapter ten, a model stimulation is presented for trading permits, sequestration of carbon and trading between USA and Mexico. In this chapter some policy available and their consequences in term of costs and benefits is discussed.

Thus this book provides lot of information; it gives us information from general introduction of climate change to different economic options available to abate it. So the book has vast information regarding climate change and its impact particularly in Mexico, factors affecting GHG emissions, market failure, government intervention and economic regulation. This can be referred for further study in other parts of the world, and is useful to different policy makers, environmentalists, and economists as it provides information on different policy; its pros and cons, climate change's consequences and different economic models to stimulate the effect.

The authors begin with simple general introduction of climate change and how different demographic features, market systems, production inputs, policies, and market failures can impact energy use and climate change. Mexico is one of the fastest urbanizing developing countries with high emission rate, if not controlled will cause fatal consequences in future through climate change so chosen for this study.

The book is simple to understand which will be useful to all level of college students and new readers. It can be useful to policymakers, economists, and environmentalists, as well students as this provides information on climate change impacts to Latin America and useful economic tool and model available.

From this book one can get overview of climate change impact, Kyoto's influence and where the earth is heading toward due to climate change. The authors did mention many economic tools like CDM but they didn't mention if it has been used in any part of the world and whether it is effective in achieving goal or not, I think mentioning that would be useful since it might help other policymakers.