Chapter 2
Development of a Methodology for Educational Management Entailing Government, Economic Sectors, and Educational Institutions for Sustainable Development

María E. Raygoza L.
Universidad Politécnica de Baja California, Mexico

Roxana Jiménez-Sánchez
Universidad Politécnica de Baja California, Mexico

Jesús Heriberto Orduño-Osuna
https://orcid.org/0009-0004-4850-7481
Universidad Politécnica de Baja California, Mexico

Diego Ramon Bonilla G.
Universidad Autónoma de Baja California, Mexico

Abelardo Mercado-Herrera
Universidad Politécnica de Baja California, Mexico

Carlos Morales
Universidad Politécnica de Baja California, Mexico

Rafael Ortiz
Universidad Politécnica de Baja California, Mexico

Ivette Cota-Rivera
Universidad Politécnica de Baja California, Mexico

Guillermo Limón-Molina
https://orcid.org/0000-0002-5445-8928
Universidad Politécnica de Baja California, Mexico

Fabian N. N. Murrieta-Rico
https://orcid.org/0000-0001-9829-3013
Universidad Politécnica de Baja California, Mexico

DOI: 10.4018/978-1-6684-9601-5.ch002

ABSTRACT

Worldwide guidelines since the 1980s have developed mechanisms with national and international economic funds for scientific and technological development that reduce greenhouse gas emissions (GHG) and mitigate environmental impacts. The objective of this chapter is to analyze the political, socioeconomic, and regulatory characteristics of Mexico as a country with a developing economy, as well as the actions that have made the country go backward in the energy transition, to make a proposal that serves as a guide. Among the precedents have been the Montreal Protocol and the Kyoto Protocol, which have sought to mitigate the use of greenhouse gases in industrialized countries and involve developing countries through various mechanisms that encourage the reduction of GHG, such as carbon credits. The UN (United Nations) continues to work with cutting-edge initiatives and programs such as the sustainable development goals (SDGs).

INTRODUCTION

Since the late 19th century, there has been a significant increase in the amount of Greenhouse Gases emitted into the atmosphere, mainly caused by the global growth in energy consumption. The current era of globalization has exacerbated the problem of climate change, affecting all ecosystems. The overexploitation of natural resources, such as coal, oil, and natural gas, to meet the growing needs of the industrial and transportation sectors has caused ecological imbalances that must be addressed through a government strategy for sustainable development (UNECE, 2021).

The anthropogenic footprint has been the leading cause of the current environmental impact on the planet, and socioeconomically developed countries have implemented various strategies to mitigate the environmental impact of anthropogenic. The government of emerging economies is required to implement measures and relevant public policies on climate change and environmental education (Lin Zhang, 2022).

To address significant global challenges such as education, world leaders, through the Union Nations (UN), have developed Sustainable Development Goals (SDG), these goals integrate internationally significant indicators related to water, environment, education, etc. Emerging markets have not prioritized the UN's SDG for a guideline strategy focused on achieving these goals (United Nations, 2023). The two main challenges focused on are this chapter are environmental protection and quality education.

Based on SDG 4, which focuses on quality education, countries should focus their attention on public policies with the objective of integrating educational policies and the stakeholders involved.