

I. Measuring the Role of International Development Programs in Stimulating Domestic Environmental Markets

“Nature is the foundation of business. Ecology sets the rules for economy. Thus, damaging nature is damaging business. Like cutting the branch we sit on,” as said by Bouwe Taverne, Head of Sustainable Development, Rabobank.¹ The environmental market was first introduced into the global market as a way to reduce the pollutants in the environment; now, however, that market has greatly expanded. In addition to pollutant reduction, the environmental market is essential in providing goods and services, supply materials and technology to effectively use natural resources while aiding in creating a sustainable environment. The United Nations Environment Programme (UNEP) as established in 1972 by the United Nations, has striven to organize environmental actions, while also supporting member states with the implementation for sustainable policies and practices.

Chile, a republic in South America, and the world’s largest copper producer, is one of 44 member states that comprises UNEP. The Chilean government has, from the beginning, recognized the importance of life free from environmental contamination, evidenced in Article 19.8 of the Constitution. Since the article ratification, Chile has passed 700 laws and decrees, establishing well over 2,000 specific environmental regulations. One of which, ratified in 1991, was the national Commission for Protection of the Environment (CONAMA), which sets and enforces standards and programs in regards to institutional responsibilities.² With a strong and vibrant economic growth in recent years, Chile has seen the productivity and health costs of environmental degradation. Firstly, the environmental market in Chile had an unprecedented value of \$3.4 billion in 2010, or 1.7 percent of Chile’s GDP in 2010; with an expected GDP of 1.8 percent in 2012.³ In comparison to other developed nations, Chile has a relatively well developed environmental industry. This is evidenced through the industry infrastructure. The water and wastewater system is well developed, with a great majority managed by private companies. Consulting and engineering segments of the industry are well developed, ranging from small to large companies and broad-based engineering firms, all of which are greatly capable in a lively market. Evolving recently, the solid waste infrastructure now has sufficient landfill capacity. Though, monitoring networks are growing in the fields of air pollution, the air quality remains a problem in some major cities within Chile. Then in 2002, like other UNEP member states, Chile ratified the Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC) in 1995. To aid this attempt at curbing air pollution, Chile adopted the Clean Air Programme. This illustrative plan has been developed to control air emissions between 2010 and 2014; particularly in regards to SO₂ and NO_x emissions, with the hopes to limit PM_{2.5} emitted into the atmosphere. Chile has also allowed four natural gas pipelines to be ‘ran’ through the country, with the hopes that it will be a substitute for diesel, and potentially reduce air pollution problems. More recently, Chile along with 50 other UN member states has joined the Climate and Clean Air Coalition (CCAC); which aims to focus on major reduction while using existing technology.

Consequentially, Chile urges all member states of United Nations Environmental Programme, along with member states of the United Nations General Assembly to aid in the implementation of the following initiatives: reduce methane from municipal solid waste sector, reduce black carbon from diesel vehicles, reduce SLCPs and other greenhouse gases, aid in finance promotion, accelerate cost-effect reduction of short-lived climate pollutants, HFC alternative technology, and finally, national plans of action on the regional and national level of each member state.⁴

¹ *Finance Initiative: Innovative financing for sustainability*. UNEP. <http://www.unepfi.org/fileadmin/biodiversity>

² Decree 240/June 5, 1990, replaced by Decree 444/October 9, 1991. CONAMA

³ UNData. <http://data.un.org/CountryProfile.aspx?crName=CHILE>

⁴ UNEP. <http://www.unep.org/CCAC>

II. Addressing Global Migration and the Importance of Supporting Sustainable Food Production

In 2005, the UN released a staggering statistic; there are 191 million international migrants. That is larger than the total population for countries such as Bangladesh, Brazil, Germany, Japan, Mexico, and Pakistan. Over the last 20 years, no less than 35 programmes have been undertaken in countries that bring status to migrants. Together these programmes have legalized the status of over 5.3 million migrants.⁵ Most of this migration is to already hugely populated areas, mostly to Northern America and Europe. With this surge in population comes the responsibility to feed these individuals.

Chile is populated with over 17 million individuals. In 2008 Chile's purchasing power parity, or GDP, reached \$169.5 billion, or \$10,000 per-capita GDP. According to the World Bank, Chile has a 107.31 on the food production index.⁶ Not surprisingly, then, is that 20% of a Chileans household income is spent on food, drinks, and tobacco. The food industry in Chile is mostly based on the country's agricultural resources, and is to some grade dependent on agro-based exports. Accordingly, the Chilean food industry comprises 24% of the country's GDP, and is the second most important exporting area. Looking ahead, it is expected that the food industry will account for well over 35% of Chile's GDP, with one in three citizens working in the food industry. According to the United Nations annual World Economic and Social Survey, food production must increase by no less than 100 percent in coming years, if the world is to feed the expected world population by 2050. It is also suggested that the 2007-2008 food crises and increased prices "revealed deep structural problems in the global food system."⁷

With a population of such magnitude Chile has taken steps to ensure current and future sustainable food production. "We value the World Bank's contribution and its commitment to support the strategies adopted by the government of President Sebastián Piñera, especially the State's modernization agenda and the country's efforts to increase competitiveness and reduce poverty," Felipe Larraín, Chile's Minister of Finance. This step toward the future was evidenced with the World Bank Group Board of Directors approving the new Partnership Strategy with Chile in 2011. This partnership is a testament towards the Chilean government's goal of eliminating extreme poverty by 2014. To do so Chile has outlined three main areas: modernization of the state sector, creation of jobs and improvement of equality, and the promotion of sustainable investments.

To continue on the path toward sustainable food production, Chile urges member states to start in the kitchen. First, shift diets and produce healthier food. Improve the distribution of food and the access. Additionally, keep food affordable for the poor, but also strive to eliminate extreme poverty by the Millennium Goal of 2015. On a much larger scale, slow down the expansion of food production in sensitive natural ecosystems. Increase the efficiency of natural resources that are consumed in the food industry, while also protecting ecosystems.

⁵ UN http://www.un.org/esa/population/migration/hld/Text/Migration_factsheet.pdf

⁶ World Bank http://www.worldbank.org/foodcrisis/food_price_watch_report_feb2011.html

⁷ UN <http://www.un.org/millenniumgoals/2008highlevel>