Environmental disaster and minimal efforts

Peru's current development model has been battered by crises, plundered the ecosystem, impoverished the population and severely polluted the environment. The State's sectoral and fragmented approach to environmental management and pollution control is weak and limited. Meeting the needs of the rural and urban poor will require structural measures, as well as new standards and practices. Policies that strengthen the institutional capacity of key actors, support environmental services and improve coordination among donor agencies are essential. The Government should serve the interests of the people rather than cater to the wishes of transnational corporations; this is the only way the country will be able to overcome the environmental challenges that lie ahead.

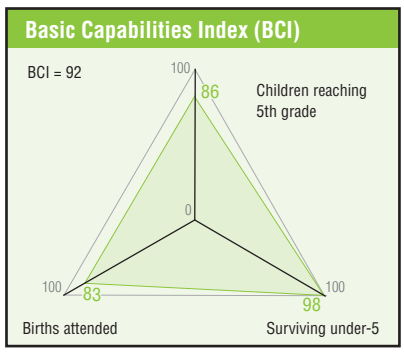
National Conference on Social Development (CONADES)
Héctor Béjar

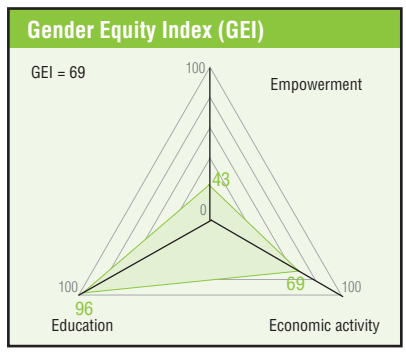
Throughout Peru's history, the ruling oligarchies have pursued extractive models that loot and pillage the country's remarkably diverse ecological and natural resources. One example is the guano crisis, which ended the country's first era of economic prosperity through over-exploitation. This led to economic ruin and widespread impoverishment during the administration of President Manuel Pardo y Lavalle (1872-76). The collapse of the guano industry led to a boom in saltpetre extraction in southern Peru. This, in turn, precipitated the War of the Pacific (1879-83), in which Peru and Bolivia made common cause against Chile, a rival in saltpetre production and export. The allies lost, and Peru was compelled to cede the provinces of Arica, Tarapacá and Antofagasta to its southern neighbour.

In the 20th century, the same pattern of over-exploitation characterized copper, rubber, lead and zinc production,[1] bringing short-term economic prosperity followed by collapse. This pattern is further aggravated by the Government's interest in accommodating the global powers that engage in international price speculation, buy politicians and silence any form of protest, rather than promoting the well-being of Peruvians.

Extensive resource extraction today

Today, as in the 16th century, conquistadors hungry for gold, copper, timber and coca leaf confront the country's indigenous peoples. Instead of horses, dogs and muskets, today's conquistadors come with money, large drilling rigs and bulldozers to cut mountains and devour lakes. In the event that anyone protested, corporate ally Alan García, Peru's President from June 2006 until June 2011, ordered the army and police to "shoot first and think later."[2]





More than 274 million metric tons of fish were caught from 1950 to 2001,[3] almost wiping out the Pacific anchoveta, a member of the Engraulidae Family which also includes anchovies. In the 1970s, the peak of the anchoveta industry, Peru was the world's prime fishing region. Anchoveta meal and oil factories proliferated, their waste severely degrading the environment. Indiscriminate fishing eventually brought the fish to the brink of extinction. In the following decades, the collapse of the fishing and processing industries gradually allowed the anchoveta to flourish in the ocean once again. Now anchoveta meal production is increasing to the point of excess, in all probability leading to depletion, coupled with pollution caused by oil and fishmeal processing facilities, especially in the provinces of Paraca, Paita, Chimbote and Parachique.[4]

At present, virtually all of the anchoveta harvest is used to produce oil and fish meal, with very little consumed by humans. The anchoveta could be a valuable food source, particularly in combating child malnutrition, as it is rich in vitamins A and D, iodine and Omega-3. Fish provides only 8% of the country's food requirements, another indication that the current development model ignores the needs of the population as well as the environment, and will thus prove to be unsustainable in the long run.[5]

At the same time, large forest rivers are dredged for gold, mountains of garbage lie on the Andes and dangerous lead deposits contaminate the main port. Other ports, used for the mining and gas industries, are wiping out marine life. The country's rivers are being poisoned by urban wastewater, in addition to the arsenic and mercury used to precipitate gold as well as the kerosene and sulfuric acid used to precipitate coca paste into cocaine.

Environmental challenges

The Amazonia, with 68 million hectares of natural forests covering 35% of the country's territory, is the eighth largest forest area in the world and the second largest in Latin America after Brazil, while the Andes contain 300,000 hectares of natural forests. However, decades of wood fuel use by homes and restaurants, along with the slash and burn agricultural methods practiced by farmers have already depleted mangrove, dry and sub-humid forests, and deforestation is continuing at a rate of 150,000 hectares per year.[6]

Peru is also extremely vulnerable to natural disasters. It is located in one of the most seismically active areas of the planet and subject to the volatile atmospheric and oceanic conditions caused by El Niño. The vagaries of this warm ocean current from the equatorial regions can cause both extreme drought and prolonged rains and flooding. Over all, the incidence of floods, earthquakes, hail, snow and drought

1 Third World Institute (ITeM), "Peru," in The *World Guide* 2010 (Montevideo: Ediciones G3, 2009), p.443.

2 W. Ardito Vega, *Perú: la criminalización de la protesta en el gobierno de Alan García*, (Servindi Intercultural Communications Services, 2008), <servindi.org/actualidad/4549>.

3 World Bank, *Environmental Sustainability: A Key to Poverty Reduction in Peru*, (Lima, Perú: Sustainable Development Unit – Latin America and the Caribbean Region, May 2007).

4 M. Quesquén, *El caso de la anchoveta en Perú*, <www.monografias.com/trabajos45/mercado-anchoveta-peru/mercado-anchoveta-peru.shtml>.

5 Ibid.

6 El Comercio, *El Perú pierde anualmente 150 mil hectáreas de bosques a causa de la deforestación*, (July 2010), < elcomercio.pe/planeta/611350/noticia-peru-pierde-anualmente-150-mil-hectareas-bosques-causa-deforestacion>.

is almost twice that of Latin America as a whole. The human devastation these natural occurrences cause is compounded by the ignorance of danger and lack of residential planning that leads people to build homes on river banks and dry river beds, at the foot of glaciers or on mountain slopes. According to a World Bank report, more than two million people were affected by natural disasters between 2000 and 2004.[7] The fatality rate is the highest on the continent.

The Government's response

Since 1940, the Government has created several agencies to address environmental health problems. Currently, the General Directorate of Environmental Health (DIGESA) is the only agency with regulatory power. A Ministry of the Environment has been created, and environmental impact studies are now mandatory for approval of economic ventures. In a proactive programme to reduce the deforestation caused by wood fuel consumption, the Government has initiated a small campaign to promote the use of liquified petroleum gas for stoves.

In the last few years, the Government has enacted laws requiring environmental impact assessments (EIA) and strengthened the legal framework of the forestry sector. The National System of Protected Natural Areas (SINAP), for example, includes 61 natural areas and covers 17.66 million hectares, 13.74% of the country. The financial resources of the Fund for Natural Areas Protected by the State (PROFONANPE), established in 1992, have been increasing, and are being used to raise additional resources. According to the Ministry of the Environment, an estimated USD 90.6 million is being devoted to conservation efforts annually. However, no systematic mechanism has been established to identify priorities.

The institutional framework assigns the main regulatory responsibilities for pollution control and environmental management to the energy and mining sector departments that develop standards based on the use of Environmental Impact Assessments, Environmental Management and Adaptation and Environmental Management Plans, Maximum Permissible Limits and special environmental standards in the subsectors of electricity and hydrocarbons. Environmental departments have also been established in the Ministries of Production, Transport and Communications, Housing, Construction and Sanitation.

Despite these efforts, the sectoral approach to environmental management and pollution control is disorganized, weak and has limited institutional capacity. Newly adopted environmental policies suffer from a lack of overall coordination and clarity. In sum, Government action to date has amounted to little or nothing compared to the challenge of ceaseless environmental deterioration and the overwhelming strength of the global powers destroying the country.

What is to come

Since 1980 the glaciers in Peru have lost one-fifth of their ice. In 50 years the country will not have enough water to drink, irrigate fields, or maintain the current hydroelectrical power system that provides electricity to towns and industries.[8] With the rise in the sea temperature, phytoplankton and anchoveta, the foundation of the maritime food chain, will sink into the depths in search of colder temperatures or migrate to other areas, which could lead to the extinction of numerous species in Peru. Likewise, a reduction in rainfall altitude will reduce precipitation on mountaintops and slopes, and cause uncontrollable floods, damming and landslides further down. The higher water level in the ocean will wipe out fishing coves and beaches. Changes in temperature and precipitation rates will transform a great part of the Amazon rainforest into desert.[9]

Minimizing the impact of these impending threats demands an integrated response to natural disasters, with an emphasis on prevention through regulation of the activities of the formal and informal mining, logging and fishing industries. These activities are currently in the hands of corporations and hundreds of thousands of "informal" miners. Vulnerability to natural disasters could be reduced through the adoption of appropriate building technologies, standards and practices among the urban poor and rural populations.

Peru could produce more electricity from hydropower and wind energy sources, switch from fossil fuels to natural gas, manage waste and avoid further deforestation. The possible impacts of climate change, using the devastation and consequences of natural occurrences such as El Niño and its effects as a baseline should be investigated. Essential policies include building the institutional capacity of key stakeholders, clearly defining the roles and functions of the Ministry of the Environment, supporting national efforts to strengthen biodiversity and environmental services, utilizing Peru's comparative advantage in biodiversity, and strengthening coordination mechanisms among donor agencies.

The National Fund for Natural Areas Protected by the State (PROFONANPE) must be complemented by an Environmental General Fund, financed by taxes paid by corporations. The work of INRENA (National Institute of Natural Resources) should be carried out through watershed councils involving grassroots organizations.

All of these reforms require determined political will; a recognition that the Government must give priority to the country's present and future, rather than serving corporations and criminalizing the protests of indigenous and local communities, which are increasingly frequent and militant. ■

7 World Bank, Lima, op cit.

8 P. Vargas, *El cambio climático y sus efectos en el Perú*, (Lima, Perú: Central Bank of Peru Working Paper Series, 2009).

9 Ibid.