

MINING: The New Threat to Biodiversity in the Andes

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Andean Biodiversity has not fared well in the presence of man. It has fared even worse in recent history, as the onslaught of so called "progress" of modern society and its multifaceted faces of development, reached ever deeper into the pockets of diversity. The Andean tropical montane forests found on the outer flanks of the Andes, has, by in large, retained an important areas of its forests intact. Now, industrial mining, backed by such players as the World Bank and international "development" organizations, are threatening to push into these remaining jewels of biodiversity.

Ecuador's biological diversity, among the world's richest, and encompassing two of the world's 25 biological hotspots, has suffered much the same fate as the rest of its neighbor's. Expansion of agriculture and ranching, both small scale and large, industrial and small-scale logging, poor land use and aggressive and destructive government land reform policies, coupled with a growing population, poverty, and export oriented economy, have contributed to wiping out a significant portion of it. However, in a recent investigation⁽¹⁾, it was found that 49% of the western and 75% of the eastern slopes of the Andes, are still covered in cloud forests- though many of these in fragmented form. Crops and human dwellings, however, have all but been displaced the interandean forests.

A petroleum based economy, which, ironically, in 3 decades of existence has increased levels of poverty, crime, corruption, and left the typical Ecuadorian more indebted than ever to international lending institutions, has also played an important role in the impoverishment of the country's biological resources. Roads into the Amazon to exploit the oil have opened the doors to uncontrolled colonization along the routes, and to millions of hectares of montane tropical forests on both side of the Andes to uncontrolled colonization. Even as Ecuador faces daily the failure of this economic pursuit, it is preparing yet again to expand oil extraction through the construction of another oil pipeline. The OCP (heavy petroleum pipeline) project will impact one of the most biological diverse montane forest regions in the Andes- the Mindo area, as well as millions of hectares in the country's Amazon region due to the opening of new extraction areas needed to fill the pipeline. The road infrastructure associated with this project is also expected to impact additional montane forests on the eastern slopes of the Eastern Andes.

The impacts of oil in the Amazon has, in addition, devastated cultures, contaminated rivers and streams, and driven species ever closer to extinction. All in the name of progress. This is especially true in the past 5 decades, as natural resource extraction has been driven to new levels of unsustainability by irrational and unethical worldwide over- consumption, and destructive economic models of development based on exporting raw, non renewable resources. To put in few words: biological diversity has been devastated, and is being devastated, by outmoded economic and social models that focus on the well being of a select number of one particular species over the well being of ecosystems and other species. The outcome could not, and cannot be, any different that what we are experiencing.

A large part of Ecuador's biodiversity has managed to hold on the eastern side of the eastern Andes and the western slopes of the Western Andes. The principal reason for this is that road access into these areas have been relatively limited, and the generally unfavourable climatic and topographic conditions large scale farming. In short, it's very mountainous, very rainy, and the soils are easily eroded and lacking in essential nutrients for good crop production. The generally small stature of the trees and the difficult access, makes them, fortunately, unattractive for most industrial logging operations. Most of the land on the Andean slopes, in fact, easily fits into the category of forestry land- a land that should be protected, and used very carefully, if at all.

However, even though large scale logging has not made a stronghold in the flanks of the Andes, the logging industry, backed by some very favorable industry-friendly legislation is dangerously creeping higher up the slopes from their preferred extractive regions: the lowlands tropics. It is here, in the lowland tropical rainforest of northwest Ecuador, that industrial logging, together with an aggressive African Oil Palm industry, has, and is, devastating tens of thousands of some of the most biodiverse forests in the world, belonging to the Choco-Darien-Western Ecuadorian Biological Hotspot. But that's another story. Nevertheless, it is troubling to see that logging companies are moving up the Andes in search of new areas rich in native forests.

Mining's Threat to the remaining Biological Diversity

The new threat Ecuador's Andean biodiversity is facing, and I'm referring specifically to Andean diversity, between a broad belt of approximately 1300 and 3500 meters above sea level (lower Montane and Pre-Montane humid to very humid forests), is mining. This is area also belongs to one of the hottest of the Biological Hotspots, the Tropical Andean Hotspot. Here, the number of plants easily outnumber, per land area, the number found in the tropical lowland humid forest of the Amazon (2), and are much more threatened.

The World Bank is playing a significant role in opening these repository of biological diversity in Ecuador to the mining industry, by producing and making available to mining companies geochemical information useful to the mining companies from 3.6 million hectares of Western Ecuador.

The creation of this mineralogical information data base formed a essential part of the Prodeminca World Bank project, a 24 million dollar project, funded in part by the Bank though a 14 million dollar loan to Ecuador. The main objective was to create information that would lead to an increase in mining activities in Ecuador, and introduce major changes in the nation's mining legislation (referred to as "modernization" of the legislation). The mineralogical information gathered included mineral samples taken from 7 protected areas in Western Ecuador, incident which led the grass-roots environmental ngo which I head, DECOIN (Defensa y Conservación Ecológica de Intag), to file the first ever claim from Ecuador against a World Bank project (3).

It is important to note that the authorization allowing members of the Prodeminca project to go into and collect mineral samples for the Cotacachi-Cayapas Ecological Reserve, one of the 7 protected areas affected, and arguably one of the planet's most diverse, was given by the Ministry of the Environment of Ecuador, presided at the time by Ms. Yolanda Kakabadse. Ms. Kakabadse is current president of the IUCN. The information produced, by the way, included information on the likely location of mainly precious and semi precious metals, and did not include one single

biotic element, thereby discrediting the argument by government and bank officials that the information was neutral in character. The information is now in the hands of at least 7 mining companies, including the world's biggest: Rio Tinto Zinc, and Newmont- the only entities that have so far purchased the information.

The other interesting aspects of this 14 million debt Ecuadorian taxpayers are now saddled with, included the reformation of national mining legislation, aimed, at principally, make mining easier for the transnationals. It also called for doing away with the public sector from exploiting and trading in minerals, thereby paving the way for full privatization of the mining sector.

These changes are not a hidden agenda for the World Bank, and they are unabashedly expressed in their policies. However, it is very troubling when a project of this magnitude calls for major changes in a nation's mining legislation, and such changes lead to de-regulation and severe weakening of the nation's environmental protection regarding mining activities.

These changes might be part of what the mining companies are insisting on in order to risk investing in the Andes, but they also represents a major threat to the remaining Andean biological diversity and local communities, and represents, what I see, as major economic hardship to these countries, as regards the capacity to enforce environmental regulations to protect the environment and their human populations, and rehabilitate abandoned mining sites. The world is too full of major ecological and social disasters produced by the mining industry not to take fully into account the impact of this aspect of mining. The modified legislation being touted by the Bank, industry, and other multilateral lending institutions, will undoubtedly lead to an increase environmental, economic and social hardship in the Andean countries, and major human rights conflicts.

The most notorious way this increase in mining activity in the Andes is being carried out, is illustrated right now in Ecuador. During the past 12 to 18 months months, a series of major changes in Ecuador's mining and environmental legislation have provided clear evidence that, at least, this Andean country, wants to tell the mining world that their mineral resources are available free of charge, and come with little, or no fiscal and environmental responsibilities. The legislative changes include: doing away totally with royalties; removing prohibitions by the state to promote mining in protected areas; requiring only one authorization good for 30 years to carry out ALL PHASES OF MINING (renewable); giving the authorization to control, and judge environmental violations by the mining industries to the same Ministry of Mining in charge of promoting mining; doing away with the possibility of most government agencies, including the Ministry of the Environment, to close down mines in case of environmental disasters, or proven cases of major environmental degradation and contamination. These modifications are accompanied by major economic incentives, aimed at reducing taxable bases, and cutting import duties for equipment and eliminating export tariffs. What more could a mining company as for? These changes in legislation moved a Canadian mining journal to declare Ecuador a prime investment site recently (Northern Miner, 15 Nov. 2001)

The threat, however, will not only be localized in Ecuador, but I believe will soon spread to other Andean countries as the governments compete with each other to make their nation more and more attractive to the global mining companies, putting their communities, ecosystems, and biological and cultural diversity more and more at risk.

This is the main engine that will drive the next generation of mineral extraction from Andean

countries, and specifically, right into many montane tropical forests, that have, until now, escaped most industrial rape and pillaging, and which are the repository of both, most minerals, and very high rates of biodiversity. And it will require focused and organized coordination from the part of all stakeholders so this push does not destroy the biological resources left in the Andes, nor impact basic rights of communities to an environment free of contamination and to a way of life of their choosing.

That mineral extraction in developing countries has not, and will not, deliver these countries from the plague of underdevelopment, has been proven time and time again ⁽⁴⁾. There is a sinister relation between nations invested in heavy mineral development for export, and high levels of corruption and underdevelopment. This problem is especially relevant today because the modified legislation being pushed through in many nations can lead to major ecological and social disasters.

We should not, therefore, buy into the industry mantra that modern mining is now ecological and sustainable. History, and even recent history has shown us that mining companies, as all companies driven by profit, have not put the interests of the environment or people above their profitability. Recent major cyanide spills around the world, and abandoned, polluting mines in such places as Summitville, Colorado, USA, tells us that nothing fundamentally has changed when it comes to mining and the environment.

In addition, the tragic tale of places such as Choropamba and Tambogrande in Peru, should also alert us to the human rights dilemma posed when governments put industrial rights and privileges above human rights and dignity ⁽⁵⁾.

Mining, undoubtedly will be around for the foreseeable future, as will pressures by the multinationals to gain access to cheap minerals. They will be aided and abetted by lax environmental and mining legislation, corrupt officials, and by the needed capital to pay off the unpayable and unethical foreign debt. Another key player will be the international financing institutions- such as the World Bank, the IMF, and the Interamerican Development Bank, and their economic adjustment programs, pressuring governments to open up their markets and making possible cheaper access to the mineral resources in the poorer countries. They will also be aided by an outmoded paradigm that values short term economic growth, at any cost, over sustainability, and grossly underestimates the values inherent and produced, by ecosystems and biological diversity.

However, many communities are leading the way in the protection of their natural resources, as they awake to the real, lasting impacts of development schemes, such as mining, imposed from above. It can only be hoped that the environmental, development aid, social, scientific and research communities will catch up and join them in vigorously protecting their environment.

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