

Sustainability and the Environment: Back to the Definition

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In the words of the World Commission on Environment and Development (WCED), sustainable development is:

A process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional changes are made consistent with the future as well as present needs.¹

The concept of sustainable development aims to bridge the gap between economic growth and environmental preservation. In developing countries, however, economic development and environmental conservation seem to remain as two diametrically opposed issues. The demands of the growing population for better standards of living drive nations in the developing world to exploit resources, endanger the environment and push it to the brink of collapse.

The exploitation of resources. The Philippines is profusely endowed with vast natural resources. These resources have been unsystematically exploited to the point that instead of allowing humans to reap their benefits, nature has fought back against their abuse. The Philippines has witnessed an appreciable number of environmental disasters, caused in one way or another by the abuse of natural resources. Both the flash floods that ripped through Ormoc City in the province of Leyte in 1991 and the more recent landslides in the town of Dingalan in the province of Aurora were assessed to be caused by illegal logging.² Commercially valuable logs were washed down from the mountains along with a clutter of debris. The rate of clearing of forest areas is much faster than nature's ability to replenish the depletion. Clearly, sustainability is not met and in addition to environmental damage, the economic benefits that could have been brought by the logging industry can never recompense the loss of human life. More dangerous and intolerable is the unlawful practice of cutting trees in protected watershed areas where hardwood trees still abound. This illegal act imperils the source of potable drinking water.

Both the passage of the bill on total log ban and the amendments to the existing anti-logging laws for more stringent penalties should be considered urgent measures to be acted upon by the members of the legislature. Illegal loggers and their coddlers should be prosecuted aggressively to the full extent of the law. Their logging permits should be canceled and their bank deposits and other assets should be frozen whenever necessary, until they are convicted and jailed. Legitimate logging companies should be compelled to reforest the denuded forest areas as part of their logging contracts.

The World Wildlife Foundation's (WWF) Living Planet Report says that with the current trends of resources consumption, humans will need two planet's worth of natural resources by

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¹ World Commission on Environment and Development. 1987. *From One Earth to One World: An Overview*. Oxford, UK: Oxford University Press.

² Mariano, Dan. 2006. Big Deal: Disasters of our own making. *The Manila Times*. 9 October.

2050.³ This is a stark indication that resources are indeed finite and that nature's ability to regenerate itself is outpaced by the rate of resources consumption.

The direction of investments. Among the significant resources present in the Philippines are the mineral deposits. Extracting these deposits from underground and harnessing their potential into useful products require the capital and expertise of foreign investors.

Seen as one of the lucrative ventures to fuel economic growth, the Philippine government opened the mining sector to both foreign and local mining companies.⁴ Unfortunately, the devastating effects of debacles instigated by the mining industry in the mine tailings spillage in Boac, Marinduque; Hinobaan; Sipalay, Negros Occidental; and Itogon, Benguet, as well as the mudflows in Sibutad, Zamboanga del Norte have offset the economic advancement assurances given by the companies to these localities.⁵ The adverse environmental impacts to the ecosystem outweigh the gains promised by the large-scale mining corporations. Among these impacts are negative effects on biodiversity, contamination of soil and waterways, and destruction of landscapes. More often than not, mining operations focus on investor returns and revenues for the government, but overlook the more important issue of mitigating environmental effects. The Oxfam America report, *Digging to Development: A Historical Look at Mining and Economic Development*, revealed that mining made only a modest contribution to the economic development of industrialized countries such as the United States, Canada and Australia. In the third world, mining has not supported sustained economic development over the last several decades. The more reliance developing nations have placed on natural resource exports, the lower their rate of growth of GDP per capita has been.⁶

To define the role of mining investments in the economic development of a developing country like the Philippines, it must be considered in the context of sustainability. Social and environmental guarantees should be in place prior to investment. Mining companies should allow independent monitoring bodies to assess the social and environmental impacts of their investments, and comply with existing international laws and established international and national standards. The governments of developing countries should review domestic legislation and bring it in line with policies implemented in prominent mining centers such as the United States, Canada and Australia, to aid in assessing the accountability of mining companies.

The orientation of technological development. According to the Proceedings of the United Nations International Conference on Non-Waste Technology and Production:

Man has continually sought to improve the quality of life, transforming nature to provide more food, better living conditions, and a longer life. Technology has helped to accomplish this transformation and to achieve many of man's goals. It has,

³ World Wildlife Fund. 2006. *Living Planet Report*. Available: http://assets.panda.org/downloads/living_planet_report.pdf

⁴ Republic of the Philippines. Congress of the Philippines. 1995. *An Act Instituting a New System of Mineral Resources Exploration, Development, Utilization and Conservation (Republic Act No. 7942)*. Manila, Philippines.

⁵ Nettleton, Geoff, Andy Whitmore, and Jonathan Glennie. 2004. *Breaking Promises, Making Profits: Mining in the Philippines*. London, UK: Christian Aid and PIPlinks. Available: <http://cpcabrisbane.org/Kasama/2004/V18n4/BreakingPromises.htm>

⁶ Power, Thomas Michael. 2002. *Digging to Development: A Historical Look at Mining and Economic Development*. Boston: Oxfam America. Available: http://www.oxfamamerica.org/newsandpublications/publications/research_reports/pdfs/digging.pdf

however left a profusion of environmental problems in its wake. The question today is whether technology can solve the environmental problems which technology has helped to cause.⁷

Science and technology are two crucial components of all efforts aimed at fostering the growth and socioeconomic development of nations. The excellent scientific and technological base of developed nations is considered to be the main driving force of industrialization. The cost of industrialization, however, is high and this has been borne by the environment. Environmental tragedies including the Minamata disease in Japan, London smog in the United Kingdom, and Love Canal in the United States are among the lessons learned the hard way for bypassing sustainability in lieu of industrialization. In taking the same route to advancement, developing countries should consider introducing appropriate technologies and environmental protection measures, although it may mean an inconsequential setback to economic development.

It is worthwhile to note the advocacy of a number of organizations to the utilization of alternative energy sources and clean technologies. The Philippines, for its part, has set up the infrastructure for and continues to support research and development on wind and solar energy conversion and biodiesel fuel. These modest steps promote sustainability and lessen the dependency on fossil fuels.⁸

The institutional changes. The global community has taken steps to remedy the eventual environmental collapse. Numerous summits focusing on environmental issues have yielded international environmental treaties and protocols, where nations have signed into and pledged to pursue policies and mechanisms to solve the existing problems and to abate the expected environmental dilemmas. The Montreal Protocol on Substances that Deplete the Ozone Layer (1991), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989), the Stockholm Convention on Persistent Organic Pollutants (2001), and the Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997) are among the treaties that the Philippines has signed.⁹

The initiatives of these protocols have been passed on to corporate entities as manufacturing and service institutions have adapted them to corporate environmental ethics. Business practices and manufacturing processes have been enhanced with environmental preservation as one of the primary concerns. More and more institutions have aligned themselves with international standards on environmental management systems as one of their corporate responsibilities. These practices reconcile the issues of economic viability and environmental responsibility.

The responsibility should not be left to governments and institutions alone. As we people make up these institutions and governments, we have to recognize our individual environmental responsibility. We should espouse individual environmental ethics, which calls for a change in lifestyle to make it in tune with environmental conservation. The simple efforts of practicing reuse, reduce, and recycle; segregating waste in our households and workplaces; taking the mass transport system instead of private cars; and participating in environmental policy

⁷ United Nations Economic Commission for Europe. 1976. *Proceedings of the International Conference on Principles and Creation of Non-Waste Technology and Production*. Paris, France. 29 November - 4 December.

⁸ Republic of the Philippines. Department of Energy. *Alternative Fuels Program*. Available: <http://www.doe.gov.ph/Alternative/default.htm>

⁹ Republic of the Philippines. Department of Environment and Natural Resources. *Laws and Policies*. Available: <http://www.denr.gov.ph/section-policies>

formulations in our communities are individual actions, which collectively will make a difference. The awareness of and vigilance against actions that are detrimental to the environment should also be considered an individual responsibility.

Sustainable development is the key concept that provides an answer to how we coexist with nature harmoniously, maintaining a delicate balance between the human need to improve lifestyles and attain a feeling of well-being on one hand, and the need to preserve the natural resources and ecosystems on which we and future generations depend, on the other. Focusing on the four key points of the WCED's definition of sustainable development, we in the developing world should work for a stable relationship between human activities and the natural world, which does not diminish the prospects for future generations to enjoy a quality of life as good as, if not better, than our own today.