

Beyond just logging trees : A reflection on Earth Day

For a heavily forested country like Indonesia, Earth Day, which falls on April 22, always serves as a perfect time to reflect on deforestation that today has reached an alarming level and sooner or later will impact on the global environment.

This is due to the fact that Indonesia's forests constitute 10 percent of the world's remaining forest cover, after Brazil and Congo.

Forests in Indonesia are also home to 25 percent of global fish species, 17 percent of the world's bird species, 16 percent of the world's reptiles and amphibians, 12 percent of mammals and 10 percent of the world's plant species and a large number of invertebrates, fungi and other microorganisms.

In addition, Indonesia's forests are also some of the best forests, in terms of their ability to absorb the highest amount of carbon emissions in the world, after the Amazon rainforest in Brazil.

Ironically, Indonesia's forests have long been suffering tremendous damage. A study conducted by South Dakota State University using satellite image-based analysis, found that the islands of Borneo and Sumatra lost about 5.4 million hectares, or 9 percent, of their forest-cover area between 2000 and 2008.

The study found that 20 percent of the deforestation occurred in zones where forest conversion is prohibited or restricted. The remaining 80 percent of forest exploitation took place in areas with permanent or temporary logging permits.

In Jambi and Lampung in Sumatra, about 1.7 million hectares from 2.2 million hectares and 650,000 hectares of 1 million hectares of forest areas respectively have been converted to oil-palm plantations, mining areas and industrial forests.

Forest extraction in the modern era dates back as far as the early years of president Soeharto's rule in the second half of 1960s.

At the time, after successfully re-arranging the economic order in the aftermath of 1965's political chaos, Indonesia was able to show unprecedented strong growth.

This was largely driven by increased demand for raw materials such as oil and timber from both the domestic and international markets.

The export of those resource-based commodities generated a windfall income for Indonesia. The increased revenues then led to an increase of capital formation in various industrial sectors, including the increased capacity of forest extraction.

Meanwhile, in the post-1998 era of reformation and regional autonomy, forest extraction patterns are quite an interesting phenomenon to observe. A collaborative study by the Massachusetts Institute of Technology and the London School of Economics revealed a correlation between the rate of deforestation and local elections.

It showed that significant funding sources candidates seeking top public positions in local governments mainly come from timber, plantations and mining companies.

Moreover, the illegal logging rate in the protected and conservation zones increased by 42 percent when approaching an election and declined by 36 percent one year afterward.

This is known as the “political logging cycle”, meaning that supporters of the candidates turned their illegal logging into legal ones by obtaining concessions awarded by the elected regional heads.

How are we supposed to treat our forests?

To answer this question, we should look at sustainability in the context of forest resource management. It should be noted that maintaining a forest has to be in line with its characteristics as a resource that can deplete and even die out if we do not wisely help this previous resource.

We should also pay attention to the inter-generational equity dimension. Sustainable forest management is an important requirement to avoid excessive resources use.

Therefore, in exploiting forest resources, it is necessary to re-invest at least equal to what was taken from the forests.

It is also imperative to maintain its ecological structure and biological function as we enjoy both tangible and intangible benefits offered by the forests.

There are at least three categories of forest-intrinsic values. First, the economic value in which forest products can be a source of products to be sold in the marketplace, such as food, construction materials, minerals, medicinal materials and other various forest-based industries.

Forest have potential for more than just timber logging. For instance, a tree in the forest is also home for living microorganisms that may have the potential to be developed into a new drug used in pharmaceutical industry, with the help of research and technology.

According to Business Monitor International Indonesia & Healthcare Report Q1/2012, the pharmaceutical market in Southeast Asia alone estimated to have US\$69.1 billion market capitalization in 2016.

Meanwhile, the national pharmaceutical materials market in 2011 reached \$4.57 billion.

This illustrates the enormous economic potential of non-timber forest products. In regards to intangible benefits of forests, they can also offer ecotourism activities to generate income.

The second value is in amenities, in the context in which forest has an aesthetic and sympathetic function. For example, we can enjoy the beauty of flowers, trees and wildlife.

Third, the morality value, as it refers to the moral obligation to preserve nature as it has provided a variety of enjoyment for mankind.

To stop forest destruction in Indonesia, the government must seriously stop issuing new concessions, along with strengthening efforts to realize sustainable plantations and timber exploitation, stern law enforcement against illegal logging and timber raw exports.

The government should also conduct a thorough assessment on the forestry industry's performance, to ensure it has fulfilled the standards of sustainable forest-extraction practices.

After these stages, it is necessary to realign the damaged forest areas and the handling of the social impacts of a logging moratorium, for example by employing the people who previously dependent on forest industry in the tree-planting projects.

Then, when sustainable forest management has been implemented, permission for timber harvesting is granted only to companies that can manage sustainable forest management.

There should be also incentive for companies to empower local communities.

During the moratorium, timber industries are encouraged to import raw materials from foreign countries, which could be different from the types of timber grown in Indonesia.

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