Current environmental challenges of Vietnamunder its economic growth

by Tien Nguyen Thi Minh

Growth over the past 25 years has imposed significant environmental costs in Vietnam, such as rapid depletion and degradation of natural resources and environmental pollution from urban and industrial wastewater.

According to the Vice – Chairman of Vietnam Panel on Climate change, Vietnam is one of the countries most affected by climate change with settlements and economic activity in the Mekong Delta at especially heightened risk. In recent years, Vietnam's increase in GHG emissions has been one of the world's fastest with the temperature on average rose by 0.62°C from 1985 to 2014. The number of hot days increased while irregular cold spells became more often.

Soil erosion is a serious concern, given the topography (three-quarters of the country is covered by hills and mountains) and the change in soil features, vegetation, rainfall patterns, and climatic conditions in some parts (Bao and Laituri 2011). In the uplands, expanding coffee cultivation has deforested and degraded land. Coffee monoculture contributes to soil erosion, especially when the crop is planted on steep slopes.

The risks of water resource degradation and depletion from climate change and increasing water exploitation—within and outside Vietnam—raise concerns over water availability in the future. Until recently some 80 percent of total freshwater withdrawals in the country came from agriculture. The reengineered Red and Mekong River Deltas have also altered the natural ecosystem's equilibrium. Changed surface water flows in the Mekong River Delta are causing inland movement of saline water. This affects soil fertility and saline balance and poses risks to aquatic and terrestrial habitats. In addition, countries upstream of the Mekong River have built hydraulic works (dams and reservoirs), reducing the water flows into Vietnam and making them more variable.

Although the surface area of Vietnam's forests has increased from 29 percent of total surface area in 1990 to 45 percent in 2013 (after having fallen from 72 percent in 1909), degradation has continued. Over the past 20 years, primary forests have decreased by 79 percent. (Trương Quang Học 2012). The wood industry is a major timber consumer and deforestation contributor. Underlying causes are poor commercial logging practices and harvesting of timber by rural households. Legal exploitation

results in logging degradation. Such exploitation occurs when government-licensed and large commercial logging operations harvest plantations for timber exports and paper production.

Degradation also happens when smaller operators act without government permission or licenses. With the population growing and becoming wealthier, the demand for land, paper, and timber is expected to compete with traditional fuel wood production. This is even more likely if more modern fuels are unavailable for rural households. Projected regional demand for wood chips and global industrial demand for wood are likely to extend the pressure on the forest sector.

Above all, water pollution is one of the most serious environmental issues. The large amount of wastewater from aquaculture production in the south threatens water quality in the Mekong Delta. Vietnamese shrimp farms have polluted surrounding waters and themselves been hurt by poor water quality. In intensive shrimp production systems, farmers often use large amounts of chemicals and antibiotics to keep the overcrowded shrimp healthy. Effluents from these ponds, which also contain large quantities of organic waste, contaminate surrounding freshwater and coastal waters. Urban wastewater is the biggest cause of the water pollution in many parts of Vietnam. This means that now and in the future, sanitation and waste-water collection and treatment will be critical for improving water quality.

A part from that, industrial zones discharge an estimated 1 million cubic meters of untreated wastewater a day directly into receiving water bodies. That equals about 70 percent of the country's total industrial effluent discharges. High pollution levels have severe implications for human health and natural ecosystems. They are also constraining urban development and the sustainability and future growth of industry and agriculture. Among the shortcomings of Vietnam's regulatory system are policies that promote industrial growth without considering environmental pollution. Another deficiency is limited resources—personnel and funding—for environmental monitoring. The growth of fossil fuel energy consumption by industry and coal-fired power plants in northern Vietnam is increasing air pollution. Satellite images show high levels of average fine particulate matter around Hanoi, approaching levels in China and several times higher than safe levels recommended by the World Health Organization.

Vietnam is one of Asia's five worst polluters of ocean plastic waste, as estimated by various international organizations. With 13 million tonnes of waste released to the ocean every year, the country ranks 17th in the world for ocean plastic waste pollution. Although there are no official statistics on the amount and varieties of plastic in the Vietnamese sea and islands, plastic waste is easy to see in Vietnamese waters, with the country's 112 estuaries the main gateways of plastic to the ocean.

Figures from Việt Nam's Association of Plastic illustrate the scale of the problem. In 1990, each Vietnamese person consumed 3.8kg of plastic per year, but 25 years later, the figure hit 41kg. As

many as 1,000 plastic bags are used each minute but only 27 per cent of them are processed and recycled.

In 2014, the Law on Environment Protection of Vietnam was revised and became an important legal tool to successfully implement National Strategy on Climate Change, National Strategy on Green Growth and National Strategy on Sustainable Development of Vietnam in the phase of 2011-2020. The revised has certain progresses which include a separate article regulating the community consultation during environmental impact assessment. However, It has an article (Article 75) allowing the import of old vessels to dismantle, which made concerns. According to experts' assessment, when dismantling an old vessel, a significant amount of waste from 5-7% vessel volume will be released which contains insulating amianthus, battery, electronic chip, dirty water, oil in the bottom of the vessel, lead compound, mercury regardless the radioactive objects… these types of waste cause environment pollution and implicate harm for people's health, they are causes of serious diseases including cancer and mental diseases. Thus, together with the implementation of various projects on environment protection and foreign trade incentive policies, Vietnam is continuing to develop and improve under-law specific regulations and legal documents to limit the potential risks of environment pollution./.

Key Reference: Vietnam 2035: Toward prosperity, Creativity, Equity and Democracy (2016), World Bank Group and Ministry of Planning and Investment of Vietnam.