

Investing in rivers can help PHL bag ‘First World’ status

By **Jonathan L. Mayuga**

JANUARY 29, 2017 | BUSINESS MIRROR



In photo: An early morning scene at a fishing village on the Agusan River in the eastern part of Mindanao.

Part One

THE proper utilization of the country’s rivers and its raw water supply, a major economic resource in the Philippines, can provide the much-needed boost to help the country sustain growth and achieve the status of a First World economy, the country’s top environment official said.

Citing the case of Singapore, Secretary Regina Paz L. Lopez of the Department of Environment and Natural Resources (Denr) said properly managing the country’s rivers is the key to sustaining the country’s growth and development.

The key to Singapore’s phenomenal economic growth, she said, was the cleaning of the Singapore

River, allowing it to spur economic activities, generate income and provide employment through

tourism. Following the footsteps of Singapore and other first-world economies, the Philippines should be able to sustain growth by optimizing the ecosystems services provided by rivers and its abundant supply of freshwater, Lopex said.

“The key to all the other first- world economies was the cleaning of their rivers; from Germany to France, to Korea,” says Lopez, an environmental advocate who once led the Pasig River Rehabilitation Commission, the agency tasked to rehabilitate one of the country’s most polluted. “So the recipe works.”

The Denr, the agency mandated to manage the country’s natural wealth, is implementing various programs geared toward protecting and conserving the country’s rivers.

Rivers are a major source of freshwater supply that supports the growth of various sectors, including agriculture, fisheries, power, transportation and various industries.

Key to survival

AS water is a very important economic resource, rivers are drivers of growth and development in many areas.

Rivers help sustain economic activities, including agriculture and fisheries, tourism and transportation. Rivers also help provide water supply for domestic, commercial and industrial uses.

The power industry also use hydropower, a renewable-energy (RE) source, to generate electricity.

According to the River Basin Control Office, some of the major river basins have been providing the power sector a boost through hydropower, an RE source, which largely remained largely untapped.

Some of the country's major rivers support existing hydropower plants, ranging from micro, mini, small and large hydropower, which can generate enormous amount of electricity.

Among these are the Abra River Basin, Apayao-Abulug River Basin, Agno river Basin, Bicol River Basin, Cagayan River Basin, Pampanga River Basin, Ranao River Basin, Agusan River Basin, Cagayan de Oro River Basin, Mindanao River Basin and the Tagoloan River Basin. The Magat Dam, which draws supply from the Agno River and Cagayan River, generates 5.4 megawatts of electricity, while the Canescan transbasin tunnel generates 160 megawatts. The Lake Buhi Hydropower Plant in Bicol generates 2.8 MW of power.

Growth driver

HYDROELECTRIC power plants draw power from the Agus River Basin and generates 727 MW, while the Agus hydropower 6, which draws power from the Agusan River, generates 200 MW of electricity.

Without adequate water supply, growth and development is impossible. Metro Manila, home to 12 million people, depends on raw water coming from the Angat watershed fed, with freshwater flowing from numerous rivers and streams within the Angat watershed.

These raw water flow all the way to the Ipo Dam and to the La Mesa Dam for treatment and distribution as tap water supplying Metro Manila and the Greater Manila Area—essentially for drinking and other household use. Industrial and commercial establishments also rely on the water provided by the Maynilad Water Services and Manila Water Corp., the private water companies contracted by the Metropolitan Waterworks and Sewerage System.

The National Capital Region alone accounts for 37.2 percent of the GDP of the Philippines, according to the National Economic and Development Authority (Neda).

Outside Metro Manila, rivers provide water mainly for irrigation to sustain agricultural production, livestock, poultry and fisheries.

Life support

DIRECTOR Theresa Mundita S. Lim of the DENR's Biodiversity Management Bureau said rivers also play a crucial role as a type of wetland ecosystem in biodiversity conservation. According to Lim, rivers provide important ecosystem services.

“The ecosystem supplies water for drinking and irrigation for agriculture. It can also supply energy through hydropower,” Lim said. “Rivers support freshwater fisheries that serve as food for the people and other animals. They also support certain life stages of fish that migrate to and from the sea.”

According to her, rivers are habitat for some of the country's endemic species, such as freshwater crocodiles, sailfin lizards and some frogs, which, in turn, keep the river ecosystem healthy and sustain the food web, including the fisheries supply.

“Its banks support specific plants and vegetation that can be food and also provide fiber and materials for fixture and furniture,” she said. “These various uses and services is a function of the biodiversity in our rivers.”

Supply challenges

THE Philippines has abundant supply of freshwater. Rains feed and replenish inland water bodies, such as lakes, swamps, marshes and rivers, with freshwater supply during the rainy season.

According to the Philippine Atmospheric, Geophysical and Astronomical Services Administration, rainfall distribution throughout the country varies from one region to another.

The mean annual rainfall of the Philippines varies from 965 to 4,064 millimeters annually.

The Philippines also experiences severe weather disturbances, which, on a positive note, can ensure adequate supply of freshwater all year round with proper water- supply management.

Low pressure areas, tropical storms and typhoons induce rains that dump huge volume of rainwater—most of the time even causing massive flood.

While the Philippines has sole control over 479 billion cubic meters of renewable water, according to the World Resources Institute, access to water when and where they are needed is often problematic.

Even water stored in the country's dams reach alarming or critically low levels during the dry season—forcing the reduced distribution or release of water when water levels are extremely low.

To be continued

Image Credits: [Samideleon](#) | [Dreamstime.com](#)

(Article retrieved from: <http://www.businessmirror.com.ph/investing-rivers-can-help-phl-bag-first-world-status/>)