

## Integrated effort to restore Citarum

Where does our capital city's water supply actually come from? About 80 percent of Jakarta's water comes from the Citarum River. The river's current condition is critical, urgently requiring special attention from many sectors. There are 13 rivers criss-crossing Jakarta that mostly originate from three main rivers: the Citarum, Ciliwung and Cisadane. Despite its poor water quality, the Citarum has become the most important river due to its role as a supplier of Jakarta's water for drinking, cooking and daily sanitary activities.

Groundwater is another source, but pumping water from the ground has its difficulties because it can cause land subsidence. The Citarum River is one of the largest rivers on Java, and is the largest and longest river in West Java. It has a strategic function as the backbone of the water supply for the capital. Citarum's catchment area is 6,614 square kilometers, or 22 percent of the area of West Java.

The river originates from Wayang Mountain in the southern part of Bandung and travels north for about 350 kilometers until it reaches the Java Sea. It serves a population of 25 million (15 million in West Java and 10 million in Jakarta). The total population living along the river is 15,303,758 (BPS, 2009) with half residing in urban areas.

The Citarum is the source of drinking water for Bandung, Cimahi, Cianjur, Purwakarta, Bekasi, Karawang and 80 percent of Jakarta. It is the most densely populated river basin in West Java.

Given its function, Citarum is categorized as a super priority river. It crosses the borders of Banten, Jakarta and West Java provinces. Its basin covers an area totaling 12,000 square kilometers and spans 13 administrative regions

The Citarum also plays an important role in supplying electricity. There are three hydroelectric dams located on the upper section of the river's basin (PLTA Saguling, PLTA Cirata and PLTA Ir. H. Djuanda, or better known as PLTA Jatiluhur) producing a total of 1,400 megawatts of power. So, the river is a primary source of electricity for Java and Bali.

The river also supports the country's food production, as it irrigates 400,000 hectares of agricultural land that produces over 5 percent of the nation's rice stocks.

With almost 40 million people depending on it, the Citarum is the most important river basin in West Java. But today the river is in peril. Economic development and population growth have harmed the Citarum's health.

The deforestation of the water catchment areas is destroying the ecosystem and causing erosion, landslides and floods. Cities, communities and industries along the river's course treat it as a convenient sewer to dump untreated wastewater and domestic garbage. Sadly, the Citarum is known as one of the world's dirtiest rivers. And, international and local media have put the river under the spotlight. The International Herald Tribune in its Dec. 5, 2008, edition wrote "Citarum, The World Dirtiest River" and The Sun in its Dec. 4, 2009, edition called Citarum "The Dirtiest River".

The national newspaper Kompas wrote "Citarum Sungai Limbah" (Citarum, a river full of waste) in its Nov. 25, 2009, issue. The Jakarta Post on Nov. 12, 2009, wrote, "Key River Suffers Upstream, Downstream Pollution". Lately, several international television broadcasts have also featured Citarum's conditions. "Asia Brief: Citarum Clean Up Pollutant," (Al Jazeera, Aug. 10, 2009), "CNN Ecosolution: Finding a cure for Indonesia's sick river (CNN, March 30, 2010) and "101 East – Indonesia's water woes" (Al Jazeera, Aug. 30, 2010) are among the sad stories.

The Directorate of Water Resources and Irrigation at the National Development Planning Agency, which is coordinating efforts to clean up the river, said the Citarum presented a myriad of problems (Asiaviews, February 2010). The depletion of protected forest areas, the slashing of trees and land conversion have all led to erosion upstream and subsequent flooding.

Further down the river, waste from cattle produces 190 tons of sewage per day that can potentially contaminate the water.

Many of the factories in the area also blatantly pollute the river, causing fish deaths and people to suffer skin rashes.

Heavily populated areas along the riverbank contribute to the mounting garbage in the river, in which the same people also wash their clothes, bathe and defecate.

Then comes integrated water resources management (IWRM). It brings a new paradigm that integrates various sectors, environmental management and individuals.

This concept takes a bottom-up approach and supports multi-sector and multi-disciplinary resource management (WVLC, 2009).

Agenda 21 of the UN Conference on Environment and Development in Rio de Janeiro in 1992 recognized the importance of integrated water resources management in multiple sectors in national social and economic frameworks.

Indonesia adopted the concept under Law No. 7/2004 on water resources and enforced it to try and resolve the Citarum's problems.

In 2007, the government formed the Integrated Citarum Water Resources Management Investment Program (ICWRMIP), a roadmap approach for an incremental development program along Citarum's river basin.

However, the implementation of this roadmap is challenging. It relies on the full commitment of every sector so it is impossible to cope with downstream problems without addressing problems upstream. It is also unlikely to conduct a restoration program in one district without taking care of neighboring districts.

***Wahyuningrat, The preservation of Jakarta's Citarum River requires the participation of all stakeholders, including the local community and the private sector.***