

SUBYEK : BANJIR

Population surge, soil damage worsen Bandung floods

Recurrent floods in Bandung regency, West Java, worsen year after year and require comprehensive solutions **involving** many parties, the National **Disaster** Mitigation Agency (BNPB) has warned. BNPB spokesperson Sutopo Purwo Nugroho said **comprehensive** handling was needed to deal with the Bandung floods both in terms of infrastructure and environmental awareness

“Population growth and environmental degradation have increased the frequency of **floods**,” Sutopo said in **Jakarta** over the weekend. Floods have been **inundating** five districts in **Bandung** regency for almost two weeks, submerging at least 36,000 houses in **water** 30 centimeters to 3 meters deep. The affected districts include Baleendah, Dayeuhkolot, Bojongsoang, **Katapang** and Cicalengka. Some 14,000 residents of these districts have been forced to evacuate. Flooding of the Bandung basin area and along the basin areas of the upstream Citarum River have been occurring for a long time because of the topography, which resembles a bowl, according to Sutopo. Data show that floods have been hitting the areas almost annually since the 1980s.

“A number of the affected districts, namely Baleendah, Dayeuhkolot, Majalaya, Bojongsoang and Banjaran are densely populated and developing industrial areas,” he said. The population of the Bandung basin area was 6.2 million in 2000 and is estimated to have increased to 9.1 million in 2014.

According to Sutopo, this huge growth in population has resulted in widescale exploitation of space and the environment, causing the erosion of between 1 million and 1.7 million tons of land per hectare from seven sub-river basin areas of the Citarum River. This, he went on, had **triggered** sedimentation in the Citarum and its tributaries. The head of the Citarum Management Center (BBWS), Adang Saf Ahmad, said that the river’s problems were very complex. He identified at least six problems that needed to be handled by a number of **parties**.

“The main problems are sedimentation in the basin of the Citarum and damage to forests around its upstream areas, especially in Kertasari and Pacet districts,” Adang said in Bandung as quoted by kompas.com. This had caused major erosion as every rainfall washed away soil that would settle in the downstream areas, he explained. “According to our records, the volume of mud settled in the basin of the Citarum reaches 500,000 cubic meters annually,” Adang said. Other problems, he said, included a decrease in the surface of **groundwater**, widespread dumping of trash in the river and land conversion.

The BBWS noted that the groundwater had decreased by an average of 8.3 centimeters annually because of the decrease in the **water** catchment areas as a result of forest clearing and conversion into agricultural fields in the upstream areas, as well as excessive exploitation of **groundwater** resources. The high rate of land conversion for housing purposes, according to Adang, rendered the surface of the soil unable to absorb and retain **rainwater**. This was concerning because as the capital of the province with the fourth biggest population in **Indonesia**, Bandung needed a massive supply of clean water, he said.

Sutopo said that a short-term handling proposal for the Citarum basin areas had been discussed during a ministerial coordination meeting in 2010, following a major flood. Among the proposed **solutions** included conservation of seven sub-river basin areas of the upstream Citarum, relocation of residents, dredging of the Citarum and its nine tributaries, construction of 22 dams and retention pools, improvement of drainage facilities and revitalization of the river banks. The total fund proposed for the project at the time was Rp 3.3 trillion. “Unfortunately, it has never been approved,” Sutopo said. Separately, **West** Java Governor Ahmad Heryawan said that the handling of the Citarum so far had focused on its downstream areas, but more funds would now be allocated to the improvement of the upstream areas.

“We will continue evaluating and seeking solutions. We hope that the Citarum’s problems can be dealt with thoroughly within the next five years,” Heryawan said.

