

## Saving Cilacap's mangrove forest



Rebuilding nature: People plant mangrove trees, as part of an initiative conducted by Pertamina IV Cilacap.

Cilacap regency currently boasts a precious mangrove forest originally covering 8,300 hectares, which is home to dozens of rare marine species. But for how long? Ongoing destruction of the coastal ecosystem is threatening the existence of this mangrove forest and its biota. The Segara Anakan Lagoon, located on the south coast of Java at the border between the provinces of West and Central Java and near the port of Cilacap, has shrunk significantly as a result of uncontrollable sedimentation, which is in turn damaging the mangrove forest.

Illegal logging has also contributed to worsening the environmental damage. The marshy mangrove area has worryingly shrunk to 6,000 hectares. Around 2,300 hectares is now land used to plant crops, breed fish and house people in Laut kampong (sea village). The mangrove forest destruction rate in Cilacap has reached such high levels that the regency administration of Cilacap has set up a special body, the Segara Anakan Area Management Agency (BPKSA), to address the damage and restore the mangrove area as well as biota of Segara Anakan.

Segara Anakan separates Nusakambangan Island from land areas in Cilacap regency. Mangroves grow in and around the Segara Anakan lagoon, which is currently shrinking as a result of severe sedimentation.

They use the wood to process it into charcoal. Head of Cilacap's BPKSA Supriyanto told The Jakarta Post in his office that the waters of Segara Anakan had become shallow and the surface area of the lagoon had shrunk by a staggering 90 percent, as sediments were carried into the lagoon by Citanduy and Cimeneng rivers in West Java and Central Java, forming deposits in the lagoon.

Rivers carry sediment into the lagoon, depositing silt on the floor and progressively reducing the lagoon's depth. Supriyanto said the sediment or mud settling from the two major streams had reduced the water area of Segara Anakan from 6,460 hectares in 1903 to 700 hectares at present. "Each year, 1 million cubic meters of mud enters the zone of Segara Anakan. This presents a significant threat to the mangrove forest and marine biota ecosystem there," added Supriyanto.

"The greatest threat is the sediment from Citanduy River, West Java. Our survey shows around 760,000 cubic meters of sediment come from this river each year," Supriyanto told the Post.

According to him, sedimentation poses such a threat that it risks annihilating the mangrove forest, which will have a grave impact on the continued survival of marine biota as a main source of income of local fishermen.



No shame: A group of environmental criminals fell mangrove trees illegally with chainsaws.

. “The Segara Anakan mangrove zone is the habitat of marine biota, particularly shrimps, which live, reproduce and feed in the waters,” he added.

Research by marine ecologists has indicated that Segara Anakan was the most unique mangrove center in the Asia-Pacific region, with a forest comprising 26 species of mangroves and hundreds of species of shrimps and fish. If the rate of sedimentation doesn't stop, the lagoon will continue to shrink and the mangrove forest will disappear as it won't have enough water to survive. The only way to save the mangroves in Segara Anakan is to reduce the inflow of sediment from the rivers, by diverting the river flow to the sea, bypassing Segara Anakan.

“We've tried to do it several times but it has proved difficult because we need to involve two other regencies and provinces: West Java and Central Java,” Supriyanto pointed out. He said Ciamis and Banjar Kota regencies in West Java had resisted the Citanduy diversion project as it had the potential to pollute the waters in the Pangandaran tourist area. “For the moment, we're trying to save the lagoon by growing more mangroves wherever possible. We're replanting this zone with mangrove seedlings and asking for the Cilacap community to participate in this project,” Supriyanto concluded. Crime scene: Some parts of the mangrove forest have been damaged by unscrupulous loggers. Cilacap Regent Tatto S. Pamuji recently expressed his concern over the situation to several officials from the Maritime Affairs and Fisheries Ministry and emphasized the importance of Cilacap's mangrove forest.

“The mangrove forest in Cilacap is the habitat of millions of fish, whose existence determine the fate of tens of thousands of fishermen here. We're therefore committed to conserve the forest, put an end to its destruction and prosecute anybody involved in its destruction,” he said. In this context, the Cilacap regency administration, Tanjung Intan Port and state oil and gas company Pertamina some time ago planted 12,000 mangrove seedlings in cooperation with the Directorate General of Sea Transport as part of the 1 million mangroves tree-planting movement.

— Photos by JP/Agus Maryono