

Mangrove for the Benefits of Local and Global Community

After the Kyoto Protocol ended in 2012, parties in the $21^{\rm st}$ Conference of the Parties (COP) in 2015 agreed on the Paris Agreement, which was intended to prevent $2^{\rm o}$ C increase in global average temperature and to pursue efforts to limit the temperature increase to $1.5^{\rm o}$ C above pre-industrial levels. In relation with this, Indonesia has submitted its first Nationally Determined Contribution (NDC), which targets the national GHG emission reduction by 29% with its own efforts and 41% with international cooperation.

The mangrove ecosystem can contribute to achieve this national target, based on the fact that Indonesia has the largest mangrove ecosystem in the world, expanding more than 3

million hectares or 23% of the total mangrove in the world. The carbon stock potential in its coastal carbon ecosystem

(mangrove, seagrass, and tidal karsh) so called Blue Carbon is estimated to be 3.14 billion metric ton carbon (PgC).

In the context of Sustainable Development Goals (SDGs), mangrove management is closely related to 4 goals of SDGs, namely Goal 1 (No Poverty), Goal 13 (Climate Action), Goal 14 (Life Below Water), and Goal 15 (Life on Land). Meanwhile, in the Aichi Target, mangrove management can contribute to attaining Target 5 (Reduced Habitat Loss), Target 6 (Sustainable Management of Aquatic Living Sources), and Target 15 (Ecosystem Restoration and Resiliance).

With its Coastal Carbon Connection program, KEHATI has and will continue to carry out a number of efforts to manage community-based mangrove in various regions across Indonesia. Several fundraising schemes have been undertaken to implement this program, such as endowment fund, company CSR fund, Indonesian Retail Bond (ORI), and Debt-for-Nature Swaps. Currently, KEHATI is preparing a new funding scheme through voluntary carbon market.

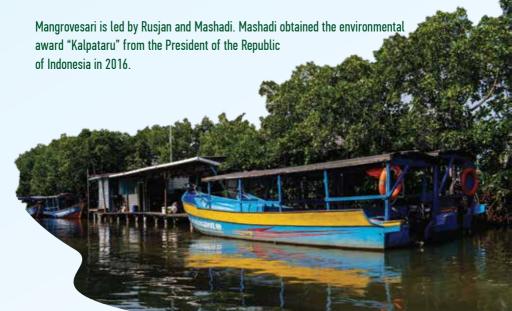
Community-based Mangrove Ecotourism in Brebes

Dukuh Pandansari, Brebes District, had suffered a severe abrasion caused by uncontrolled mangrove forest clearing into fishpond. This abrasion had result in the pond to no longer be productive, which in turn disturbance the economy of the community. It was estimated that 1,000 hectares was hit with the abrasion.

In 2008, KEHATI collaborating with the local community started to rehabilitate the mangrove ecosystem by planting 100,000 trees in a 5 hectare area. Owing to the resilience of the local community, the number of planted mangrove trees until 2018 has reached 3.5 million over 210 hectare planting area.

This area was then developed into a mangrove ecotourism area, attracting tourists both from within and outside of Brebes. The number of tourists visiting on holidays can reach two thousand people per day, boosting the economy of local people. Other activities supporting the rehabilitation and mangrove ecotourism are mangrove conservation campaign, mangrove batik, shellfish aquaculture, mangrove crab enlargement, local culinaries, and others.

The success of this mangrove conservation program has made Pandan Sari as the national mangrove learning center. The main driver of this program is community group 'Mangrovesari' in which 30% of its member are women.



What's Next? The solution option to face challenges in mangrove management in Indonesia is to develop community-based mangrove management program that combines conservation and rehabilitation efforts through public private partnership approach include entering voluntary carbon market. Conservation efforts are implemented within pristine mangrove areas, focusing on protection and management of these areas. KEHATI will continue these conservation efforts in the central and eastern parts of Indonesia, especially in Kalimantan and Papua. Meanwhile, rehabilitation efforts are applied on damaged mangrove areas, where the local people are the ones suffering the most impact. KEHATI will continue mangrove

Mangrove conservation and rehabilitation endeavors will be related to improving the economy of local community by sustainably using mangrove ecosystem service, such as developing mangrove ecotourism areas, sylvofisheries, organic ponds, and others. Also, these efforts will be accompanied by public awareness and capacity building activities, as well as support to government policies.

rehabilitation efforts by focusing on the western and central parts of Indonesia, particulary

With this combination approach, KEHATI will realize the dream of coastal carbon program: Making mangrove for the benefits of local and global community, both ecologically and economically.



in Java, Kalimantan, and Sumatra.



