

Mangrove Restoration

for Biodiversity Conservation
in Bumi Manakarra



PT Astra Agro Lestari Tbk

The Priority Program is to restore mangrove forests in coastal areas and surrounding plantations areas in PT Letawa, precisely in the coastal area of Pelsus Tanjung Bakau, embankment housing OM that adjacent to the coast of Jenggeng Beach, and the coast of Muara Jono Tikke as a habitat for animals, especially migratory bird species. The Astra Mangrove Conservation (AMC) program is a manifestation of the company's commitment to embody the governance of sustainable oil palm plantations as well as to help the Government of North Mamuju Regency to conserve mangrove forests on the coast of North Mamuju.

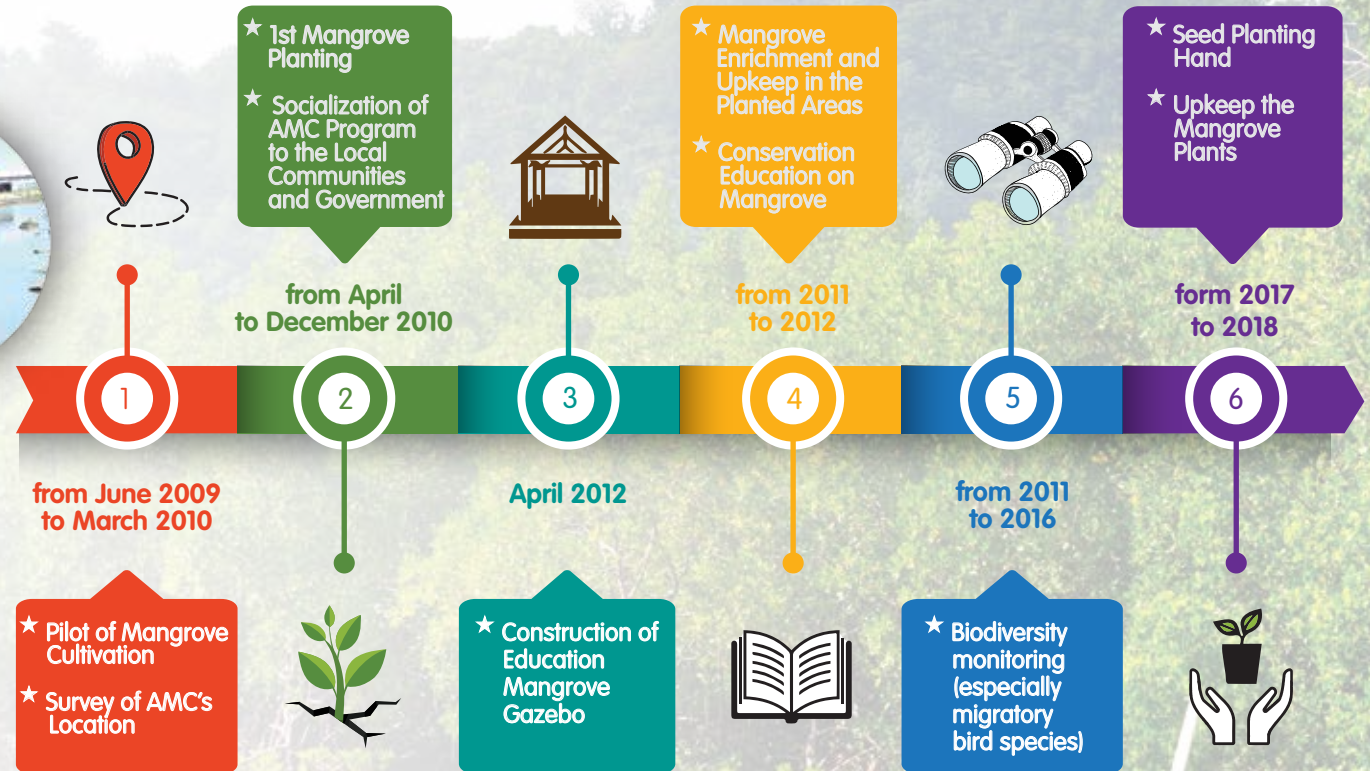


Construction of Education Mangrove Gazebo

Cooperate with local government in rehabilitation program



Community involvement in rehabilitation program



This program runs on the company's commitment together with the community, community leaders and local government as well as the Forest and Environment Services of North Mamuju. Areas that have been identified as part of the AMC program are managed, planted with mangroves and maintained as well as financed by companies with involvement of local communities. Until 2018, 275,937 mangrove seedlings have been planted on area of 55 hectares, carried out gradually throughout the year in the area of Astra Mangrove Conservation.

> 250,000 mangroves have been planting which resulted in the Company being awarded the Kalpataru from national government in 2014



2010 (70,647 ind.)



2011 (36,000 ind.)



2012 (40,500 ind.)



2013 (12,000 ind.)



2014 (32,500 ind.)



2015 (3,100 ind.)



2016 (720 ind.)



2018 (75.470 ind.)

Bird Species Richness on Mangrove Planting Area

Total bird species recorded during the monitoring were 67 species from 31 families, 19 species of which are protected by Indonesian law.

1. *Alcedo atthis*,
2. *Anthreptes malacensis*,
3. *Ardeola speciosa*,
4. *Bubulcus ibis*,
5. *Cacatua sulphurea*,
6. *Ciconia episcopus*,
7. *Cinnyris jugularis*,
8. *Circus assimilis*,
9. *Egretta eulophotes*,
10. *Egretta garzetta*,
11. *Halcyon chloris*,
12. *Halcyon sancta*,
13. *Haliaeetus leucogaster*,
14. *Haliastur indus*,
15. *Himantopus leucocephalus*,
16. *Macrocephalon maleo*,
17. *Numenius madagascariensis*,
18. *Numenius phaeopus*,
19. *Sterna albifrons*.



Biodiversity monitoring
(especially migratory bird species)



Cacatua Sulphurea



Himantopus leucocephalus



Halcyon Sancta



Actitis hypoleucos

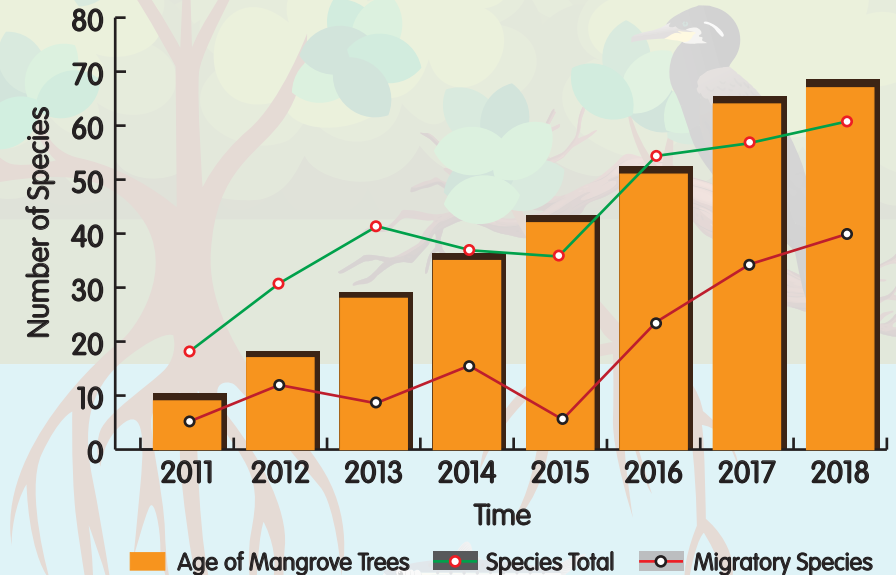


Himantopus leucocephalus
(immature)



Ardeola speciosa

Species Accumulation Curves





PT Astra Agro Lestari Tbk

Jakarta Head Office

Jln. Puloayang Raya Blok OR I
Kawasan Industri Pulogadung
Jakarta 13930 - Indonesia



(+62-21) 4616 555



(+62-21) 4616 682 / 4616 689



sustainability@astra-agro.co.id