

## Conservation management

An important milestone was achieved in 2022 with the establishment of an aquatic conservation area on 8/8/2022 by ministerial decree (Kepmen KP Nomor 49, Tahun 2022: Kawasan Konservasi di Perairan Mahakam Wilayah

Hulu Kabupaten Kutai Kartanegara)!! This protected area is the first (!) of its kind to be established by the Ministry of Marine Affairs and Fisheries (MMAF) within an inland freshwater system in Indonesia and will set an example for more aquatic conservation areas in freshwater habitat. The area has a total size of **42.667,99 ha**, including 1.081,28 ha of core area, 30.695,74 ha of limited usage area and 10.890,97 ha of rehabilitation and maintaining ecological function of riparian and swamp areas. Earlier this area was protected at the district level after a district decree was issued by the regent Kutai Kartanegara with the support of 27 villages! Establishment of the Aquatic Conservation Area aims to: Secure the quality of the Mahakam Pesut (habitat); Protect other biodiversity as well; Enable food security and Ensure the welfare of the people living in the reserved area



An MOU was signed in December 2022 between the representative body of the Ministry of Marine Affairs and Fisheries, the Center for Coastal and Marine Resources Management for Kalimantan Region (BPSPL Pontianak) and RASI for collaboration a.o, regarding the development of the PA management plan. The draft is currently being finalized and expected to be submitted for another ministerial decree by March 2023.

**Regulations** for the PA developed by RASI in collaboration with the local government were endorsed by the People's Representative Council who installed a special committee for Pesut conservation (Pansus Pesut!) per October 2022! The regulations, including a ban on certain fishing gear types and usage (that endanger dolphins or monopolize) but also

related to boat traffic (shipping lane, boat size, and speed regulations), are expected to be finalized by January 2023. All regulations will make a contribution to the two major causes of pesut mortality, which is gillnet entanglement (70% of all deaths with known causes) and secondly, boat collision (9%). Once the regulations have passed, we need to socialize them with all stakeholders and communities and we seek for funding to do so!





Signed agreements of 33 villages, at present, inside Kutai Kartanegara district were obtained that agree to be part of the Essential Ecosystem Area (EEA) of Pesut Mahakam and peat swamp habitat and allocated their land for conservation and/or sustainable land-use purposes without impacting on the EEA overall primary ecosystem function. The total EEA is 186.483,93 ha excluding the Aquatic conservation area, larger than the indicative map that is covered by the Governor's Decree for Kutai Kartanegara (127,535.73 ha), and also including 44.658,19 ha of peat swamp forest. Together with the

other natural vegetation cover excluding community plantation gardens and open water bodies, the total carbon stored insides the EEA includes 63.279.769 tonnes and a total of **78.284.792 tonnes** while including the Aquatic Conservation Area. 91% of total carbon storage is contributed by the preservation of peat swamp (forest)!!



## Research & Monitoring



Pesut Mahakam River dolphin and water quality monitoring surveys were done in our new (!) fiber boat. In 2022, the lowest dolphin mortality was recorded since 2015 with one dead calf that died of unknown cause while a total of 5 calves were born in 2022!! We also identified 4 new dolphins this year so far (welcoming Agna, Humpie, Qi & Kaisar to the pesut family). We are still analysing data for 2022 but we hope that the population has increased from the estimated population of 67 (max 74) individuals in 2021. We hope that the low mortality will be a continuing trend!!

Baseline water quality and depth data were obtained by our team for c. 20 fish core areas as a reference for future evaluation management. Most areas were in good condition but already some

suffering from terrestrial run-off illustrated by

COD exceeding standard for open waters. Therefore, our program focusing on the establishment of Essential Ecosystem as buffer zone to the pesut conservation area is of outmost urgency!

**Pinger evaluation** & fish catch studies & alternative gear interviews were done throughout 2022. Since July 2020 until now, 20 December 2022, a total of 192 pingers have been installed to gillnets belonging to 160 fishermen and only 1.6 % of all gillnets with pingers had a possible (single) close encounter with dolphins.



All 160 fishermen were satisfied with the pingers as their fish catch remains unchanged or even in some cases, a larger fish catch is achieved. Zero entanglements were achieved



for all 192 nets with pingers so far! No net damage or fish preyed upon by dolphins for 189 nets while net damage has much decreased in case of the 3 fishers whose nets had each endured damage during a single occasion. Of the 146 gillnet fishers interviewed, 142 stated that they would abandon gillnetting if they obtained alternative gear or other income generating support and mostly favoured fish traps. RASI intends to raise funding to purchase gear when the ban on large mesh-sized gillnets (> 4cm) comes into effect, which is most likely early 2023.

We hope you can help us to exchange these dolphin-dangerous nets for alternative gear!!

Fisher meetings were held with 29 groups and > 300 fishers agreed to keep an eye out at the water to prevent gillnet entanglements and report illegal activities such as fish poisoning that caused the death of a mother and calf dolphin in 2021.

SMART patrol teams (5), consisting of ten community rangers, have been doing a great job for 3 years now and while covering a total track in 11 months in 2022 of 48,112 km (3,620 hours), they recorded a decrease of >75% in illegal fishing activities compared to when the patrols started in January 2020. They were also the first



to record newborn calves and responding to stranded dolphins and engage with fishermen to offer gillnet fishermen acoustic pingers and persuade illegal fishers to stop breaking the law.

## Community participation & awareness

In September, RASI conducted an educational marathon by visiting 36 junior and senior Mahakam River schools to



evaluate the environmental education program after RASI trained school teachers in 2018 to teach the theoretical and practical courses in an interesting manner to catch student's attention. We also engaged students during the campaign focusing on sustainable use of natural environment and its resources, protected and endangered species and trying to create a generation that cares and actively want to take care of the environment!



An English theatrical contest was held on 28<sup>th</sup> October, by RASI with theme "Save the Mahakam River dolphin and Friends" was done with 9 elementary schools from Samarinda with 54 acting children. Please check out their performances at our Youtube channel: Yayasan Konservasi RASI: (25) English Theatrical Perfomance Competition - YouTube.

(Inter)national awareness was raised on the conservation of pesut by presenting in at least ten national academic or open public seminars and events and we also joined one international seminar in Pakistan to exchange with other river dolphin range countries and working towards an Asian Action Plan. RASI has been collaborating on a certification process for river dolphin conservation areas initiated by (river dolphin initiative) and helped developing the River Dolphin Conservation Standards (CARDS). We hope that all local and global efforts will help to provide an even more effective protection and that the population may increase as well!





Alternative income potential in its initial stages, was developed through several trainings while aid in the form of tools were also provided to groups in four villages inside the PA. Two hydroponics installations were placed; one in Pela and one with solar panel in Liang Buaya; presto training in Sangkuliman and Pela; Batik and Purun (grey-sedge plant)

trainings in Pela and Sabintulung Next year

RASI will attempt to assist in marketing and branding while expansion of hydroponics to other villages and new products are being developed such as stingless bee honey using an agro-pastura system as well as breeding earth worms for pellet production.





An ecotourism potential Inventory was conducted inside the EEA, preparing itineraries for community based eco-tourism and efforts to strengthen the tourism stakeholders in villages. Additionally, English training was provided with 20 community members from Pela village including youth, homestay owners, local guides, motorists and others involved in tourism. In 2022, Pela won the 3<sup>rd</sup> national price for ecotourism potential in 2022 centred

around the Pesut conservation. Because the destination is attracting more and more visitors, RASI performed training in dolphin watching protocols and also handed a hydrophone to elevate the dolphin watching experience when certain distances and engine rules must be obeyed.









All these activities could not have been done without the support of sponsor organizations and individuals, so a huge thanks to all!!

On behalf of the entire YK-RASI team, we wish you happy holidays and a healthy new year 2023!

## Budiono,

Director, Yayasan Konservasi RASI

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