

Pesut Mahakam Conservation Program-
Protection of Irrawaddy Dolphins in the Mahakam Wetlands
through establishment of community-supported protected areas in
dolphin core habitat in East Kalimantan, Indonesia
A GNF/ Ursula Merz supported project



Kawasan Pelestarian Alam Muara Pahu



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Yayasan Konservasi 2000

Mission: Promoting sustainable use of natural resources to enhance human livelihoods, protect biodiversity, safeguard a healthy ecosystem and human environment with particular reference to aquatic (related) environments



Brief intro: PESUT MAHAKAM (Irrawaddy dolphin, *Orcaella brevirostris*)



Status:

- Protected by Indonesian law (UU. No 5 tahun 1990)
- Critically Endangered (IUCN)
- CITES Appendix I
- Symbol species of East Kalimantan Province

DOLPHIN THREATS



HABITAT DISPLACEMENT



UNSUSTAINABLE FISHING METHODS



NOISE POLLUTION



FOREST LOSS- Sedimentation-
Decreasing fish resources



CHEMICAL POLLUTION



LIVE CAPTURES

MAIN THREAT = DIRECT MORTALITY
Caused for 74% by GILLNET ENTANGLEMENT

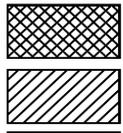
2007-2009 GNF/ U- Merz supported project activities



2007-2009 GNF supported project activities

AIMS

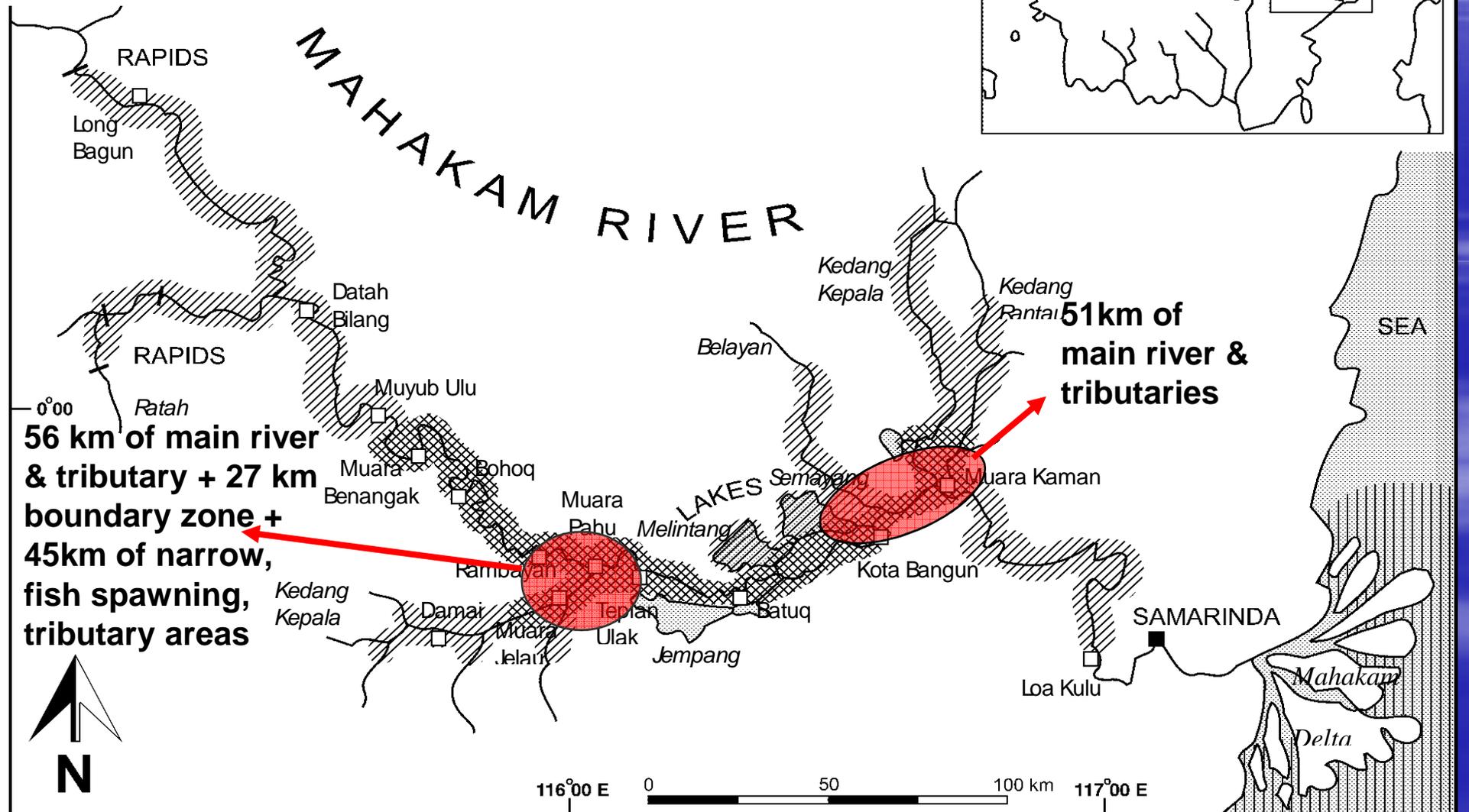
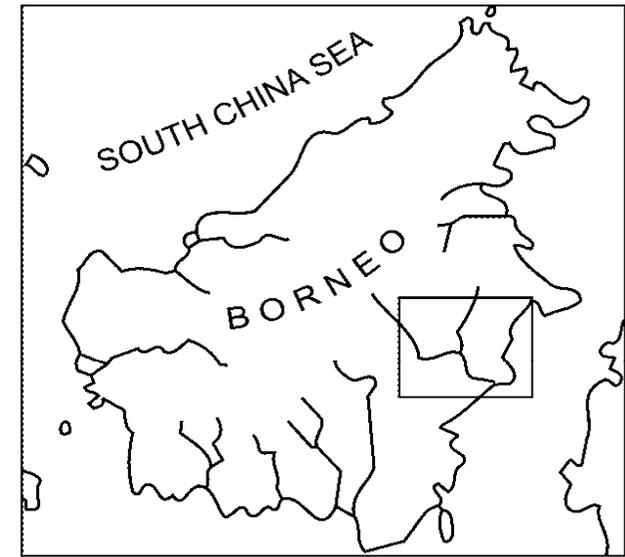
- Finalizing the official establishment of two protected dolphin areas including fish spawning areas, riparian and swamp forest protection to offer protection to other protected species within the area.
- Protection of dolphin prey (fish) resources through introduction of sustainable fishing techniques and law enforcement.
- Long term protection by educating local community and youth on the importance of protection and sustainable use of natural resources
- Dolphin threat and mortality reduction by gillnet use regulations and pollution reduction (due to chemical waste and boat noise)
- Dolphin monitoring & threat assessment



HIGH DOLPHIN DENSITY AREA

TOTAL DOLPHIN DISTRIBUTION AREA

Protected dolphin areas in progress



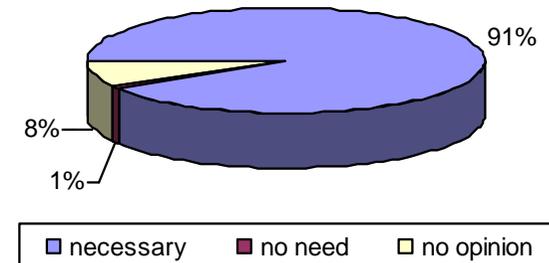
ACTIVITIES AND RESULTS

Establishment of protected areas

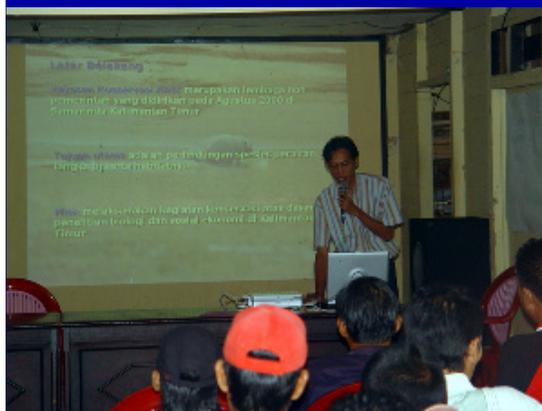
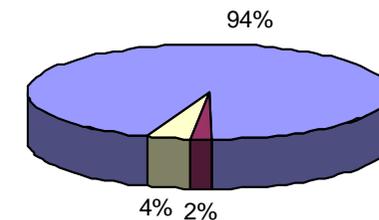
- **Socialization with local communities, government and mining companies on the future policies in the 1st prospected protected dolphin area.**
 - interviews (210 resp.), community meetings & marking of core area

Results: unanimous & signed community agreement on establishment & regulations/policies for all nine 'kampung' villages in dolphin protected area

Opinion about the proposed regulations and policies



Opinion regarding the protected nature reserve in Muara Pahu



ACTIVITIES AND RESULTS

Establishment of protected areas (Cont.)

- Initial socialization was made with part of the local community in Central Kutai district regarding the establishment of a 2nd dolphin conservation area during meetings in Semayang/ Melintang Lake villages.
- **Results:**
 - All participants supported the conservation of the dolphins and its habitat and would actively participate.
 - The community expressed its need for governments support in the form of effective law-enforcement to prevent illegal fishing (electro-fishing and trawl).
 - The community representatives stated they would agree if the government would establish a conservation zone for the dolphins as long as they can still catch fish.



ACTIVITIES AND RESULTS



Sustainable fisheries

- Conducting interviews and practical research to study most rendable and sustainable aqua-culture form
- Familiarizing fishermen with these sustainable aqua-culture forms in workshop meetings

Results: In total 10 sustainable fishermen cooperations from 6 kampungs were established with 2002 members to facilitate loans needed as initial investment.



ACTIVITIES AND RESULTS

Raising environmental awareness within local communities and youth

- High-school awareness campaigns were organized at 23 high schools in the MMA reaching out to 1675 pupils and 64 teachers raising awareness on the dolphins and several other threatened animal species in the MMA and Lakes and sustainable resource use
 - An additional essay and poster competition was held
- Environmental education school packages have been developed for junior and senior high schools for future inclusion in regular or extra curricular courses
- Poster distribution for protected species in the Middle Mahakam Area to schools, offices, owners of protected species, head of kampungs, gathering places



ACTIVITIES AND RESULTS

Dolphin monitoring surveys

Three surveys in August, September & November 2007

Results:

- Best estimate 2007 based on photo-id analysis and direct count: 87 & 91
- Mean annual mortality 1995-2007 = 4 deaths/yr
- Mean birth = 5-6 newborns/ year



ACTIVITIES YET TO BE CONDUCTED

Within GNF supported project framework

■ Protected Areas

- **West Kutai: official legalization, socialization & demarcation sign boards**
- **Central Kutai: community interviews, stakeholders meetings, socialization and demarcation**

■ Campaigns:

- **High school campaign in Samarinda City;**
- **Application of environmental education module & monitoring at schools;**
- **Elementary school campaign**

■ Sustainable Fisheries:

- **Implementation of sustainable aqua-culture with selected group of fishermen**

A photograph of two dolphins swimming in the water. The dolphin on the left is partially submerged, with its head and dorsal fin visible. The dolphin on the right is more fully visible, showing its head and dorsal fin. The water is dark blue with some ripples. The text "Thank you" is overlaid in the center in a blue, outlined font.

Thank you

**Powerpoint by Danielle Kreb
Pictures by Budiono, Sumaryono, Rani and Danielle**