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Coastal Biodiversity Conservation through Strengthening Science Values of Local Wisdom of Bajau in Torosiaje Gorontalo

Ramli Utina, Abubakar Sidik Katili, Elya Nusantara, Yowan Tamu

*Department of Biology- Universitas Negeri Gorontalo;
Research Centre for Coastal Ecology based on Local Wisdom, State University of Gorontalo
Department of Sociology Universitas Negeri Gorontalo*

Coastal biodiversity; *Why*

- Indonesia has 3 million hectare mangrove forest (about 23% in the world);
- Great diversity of coastal ecosystems with potential biodiversity, and ecotourism (Whale Shark in Botubarani; Olele coral reef);
- Mangrove (vegetation/fruit) potential for food, medicine, medicinal herbal, as carbon storage ;
- Biodiversity of fish, shrimp, shellfish in coastal ecosystem as source of protein, and provide income for society;



- *Bajau* local wisdom has values for conservation coastal ecosystems. (*Bajau* community living in the floating village of Torosiaje, mangrove forest in the settlement of Bajau are well maintained);



Site: Bajos' Village of Torosiaje, Torosiaje Jaya, Bumi Bahari,
Gorontalo Province. Indonesia



SKETSA
Desa Torosiaje



- Gerbang Desa
- Puskesmas Pembantu
- Penginapan/ Losmen
- Mess Wisata
- Jembatan Batas Dusun
- Hidran Air Bersih
- Gedung Serba Guna
- Masjid Nur Iman
- Perumahan Guru
- SDN Torosiaje
- Rencana Pendopo
- Rumah Penduduk
- Dermaga Tambatan Perahu
- Rencana Taman Laut
- Rencana Lanjutan talud
- Talud Penahan Abrasi Pantai
- Rencana Lanjutan Jembatan
- Jembatan/ Jalan penduduk
- Pangkalan Tambangan Perahu
- Laut
- Karang
- Kantor Desa





Village of Bajo Community in Torosiaje Gorontalo (foto; Ramli,2011)





Coastal biodiversity: *the problem*

- Indonesia has lost 40% of mangrove forest,
- Logging, conversion;
- Reclamation;
- Destructive for fishing;



***Pressures on the biodiversity
and its ecosystem shows
the Ecological crisis;***



Objectives

- a. Strengthening the Bajau local wisdom to the KSL with an understanding of ecological science values that encourages coastal communities to restoration, conservation biodiversity;
- b. Contextual learning the subject of coastal ecosystem, biodiversity and local wisdom in the elementary school, that encourages coastal school to build character conservation .

Method

- The community target is “*Kelompok Sadar Lingkungan*” (*Awareness Environmental Group*) on Bajau communities at Torosiaje village, Pohuwato, Gorontalo;
- Identification of local wisdom in form of local knowledge, and traditions which implies the conservation of the mangrove ecosystem;
- Focus group discussion (FGD) about local knowledge, traditions, and assistance with *kelompok sadar lingkungan* so that they have an understanding science values on mangrove restoration in their;
- Build a field ecology; *to strengthening ecosystem restoration, and contextual learning of the ecosystem in the school.*

Result (1)

Identified the forms of local knowledge Bajau and its scientific meaning in restoration of mangrove.

a) *Mamia kadialo*; the traditional of Bajau for fishing journey up to several days and even months.

Along this Mamia kadialo moment, families are left at home is prohibited to dispose of ash kitchen, prohibited to washing cookware in marine waters, discard water chili. If the traditions are violated then the fishing journey would have disastrous.

*The science values of Mamia kadialo is;
Bajau people are prohibited to pollute the sea waters.*

Result (2)

- b) Bajau people should not be cut down the mangrove trees that is still growing or too young, that are believed to interfere with the spirits.

*The science values is:
maintain and conservation mangrove
ecosystem, biodiversity species mangrove.*

- c) Restriction to consume the turtle meat, it is could be disaster. Turtles are believed to help Bajau people.

*Science values is:
preservation of wildlife, and maintain species
biodiversity*



Result (3)

- d) Some of Bajau people still use simple method for fishing, i.e, using arrow to certain size fish that already be consumed;

Science values is;

fish and biota have opportunity to reach adult stage and the breeding phase; and maintain biodiversity

- e) Scientific name of mangrove species were learned (contextual) to coastal school, that is: *Avicennia* sp (bajau; apapi), *Rhizophora apiculata* (bajau; bangkau dinda), *R. mucronata* (bajau; bangkau lila), *Sonneratia alba* (bajau; pappa lila), *S.caseolaris* (bajau; pappa dinda).



Childre n, 2015

CONCLUSION

- a) The local knowledge and traditions in local wisdom of Bajau community has science values for biodiversity conservation and character conservation;
- b) The local wisdom of Bajau communities can be preserved by strengthening science values;
- c) Field ecology of mangrove as an important to biodiversity and mangrove ecosystems conservation.

Thank you

