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# Master Plan of Togeian Islands Marine Tourism

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## Abstract

*Togeian islands is one of major tourist destination in Tomini Bay, Central Sulawesi. The area lies in the hearth of global marine biodiversity, so call "coral triangle." The beautiful seascape with small group of islands, and underwater scenery with numerous coral reef, unique creatures, offers great spectacular dive site for tourists. Moreover, some endemic species of marine and terrestrial ecosystem and ethnic group, such as Baja people lead the area as the richest touristict. Those nature and cultural diversity should be managed for sustainability of tourism. Therefore the master plan to guide the development of marine tourism is needed.*

*The research consists of preparation, field surveys, analysis and interpretation of data, synthesis, and preparing master Plan stages. The Master Plan of Marine Tourism was developed based on the assessment of aquatic, terrestrial, cultural and feasibility of potential objects and marine tourism attraction and formulated into six Marine Tourism Development Area (MTDA).*

**Keywords:** master plan, marine tourism, Togeian islands, coral triangle.

## 1. Introduction

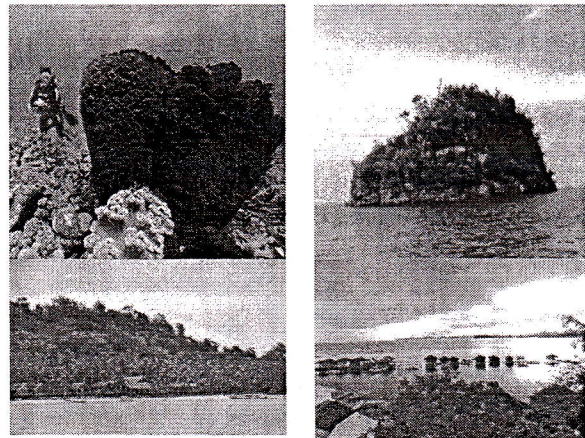
Indonesia is an archipelago that is rich in diverse natural and cultural resources. Country with an area of marine waters by two-thirds (3.650.000 km<sup>2</sup>) of the region and 17 480 islands with long coastline of about 95 181 km is the potential for marine tourism.

Togeian islands is one of major tourist destination in Tomini Bay, Central Sulawesi. The area lies in the hearth of global marine biodiversity, so call "coral triangle," composed of Indonesia, Philippines,

Malaysia, Papua New Guinea, Japan, and Australia. It is the only place in the world where atoll, lagoon, fringing reef, barrier reef, and lagoon can be all found together.

The beautiful seascape with small group of islands, white sandy beaches, and underwater scenery with numerous coral reef, wall, pinnacles, unique creatures, coral garden offers great spectacular dive site. Diving, snorkeling, fishing, sunbathing, sight-seeing, nature tracks, roaming the village, are a leading activities of Togeian islands marine tourism (Figure 1). This tourist area is supported by dive resorts, cottages, bungalows, and other accommodations.

Moreover, some endemic species of marine and terrestrial ecosystem and ethnic group, such as Baja people or the sea gypsies, lead the area as the richest touristict area within the triangle. Those diversity of marine resources and local community should be managed for *sustainability* of tourism. Therefore the master plan to guide the development of marine tourism is needed.



**Figure 1. Objects and attractions of Togeian marine tourism**



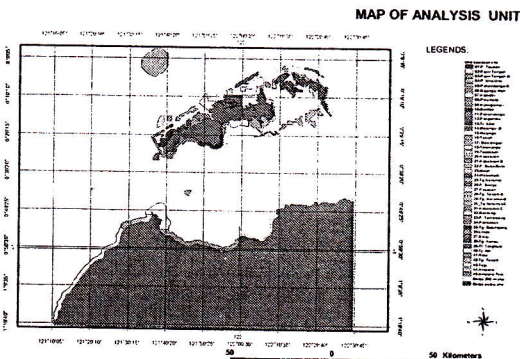




**Table 2. Spatial Analysis Unit of Tojo Una-Una Regency, Central Sulawesi**

Analysis Unit	Geomorphology										Land Cover		
	Features*										Small Island	Mangrove Formation	
	1	2	3	4	5	6	7	8	9	10			
01. Taupan	■	■											
02. Pasir Tengah	■	■											
03. Pasir tengah B	■	■											
04. Una-una	■	■											
05. Pohondongo-B	■	■											
06. Bajanga Wali	■	■											
07. Katidiri	■	■											
08. Pinumota	■	■											
09. Kulingkinari	■	■											
10. Bomba	■	■											
11. Pohondongo	■	■											
12. Pangempa	■	■											
13. Teluk Kilat	■	■											
14. Malenge -B	■	■											
15. Malenge	■	■											
16. Taoleh	■	■											
17. Bolelengan	■	■											
18. Talawanga	■	■											
19. Talatakoh	■	■											
20. Kabalutan	■	■											
21. Kabalutan B	■	■											
22. Bukabuka	■	■											
23. Miloh	■	■											
24. Tg. Towali	■	■											
25. Tg. Keramat	■	■											
26. P. Bango	■	■											
27. Pasokan	■	■											
28. Tg. Towali-B	■	■											
29. Tg. Keramat-B	■	■											
30. Tg. Keramat-C	■	■											
31. Kabalutan-C	■	■											
32. Benteng	■	■											
33. P. Tombolang	■	■											
34. Pontianak	■	■											
35. Tg. Batutigang	■	■											
36. Lundo	■	■											
37. Siatu	■	■											
38. Tg. Kanau	■	■											
39. Tl. Tangkubi	■	■											
40. Tj. Api	■	■											
41. Rato	■	■											
42. Tg. Towali	■	■											
43. Tojo	■	■											
44. Ampana	■	■											
45. Ampana Tete	■	■											

Classification base on marine system (Desalinesnes, 1977): 1=depth, 2= beaches, 3= beach ridge, 4= barrier, 5=shoal and rocky seavide, 6= siguna, 7= lagoon, 8= atoll, 9= fringing reef, 10= tidal flats



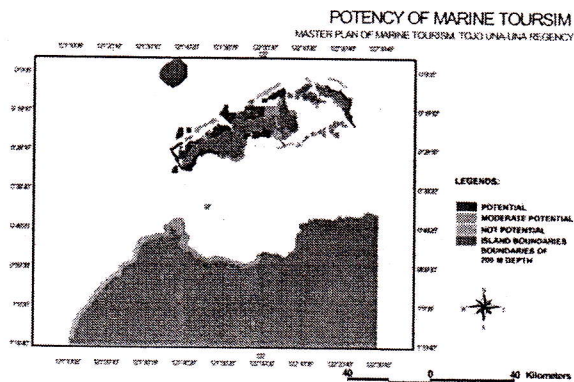
**Figure 2. Map of Spatial Analysis Unit of Tojo Una-Una Regency, Central Sulawesi**

**3.2. Assessment of Potential Objects and Attraction of Marine Tourism**

Analysis performed on marine tourism potential of each unit of analysis is based on the criteria of aquatic, terrestrial and feasibility of potential objects and marine tourism attraction. Tabulation of the results of potential assessmet of objects and attraction is presented in Table 3 and Figure 3.

**Table 3. Assessment of potential objects and Attractions of Marine Tourism**

Analysis Unit	Aquatic Potential				Terrestrial Potential				Feasibility Potential				Overall Potential			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
01. Taupan	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
02. Pasir Tengah	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
03. Pasir tengah B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
04. Una-una	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
05. Pohondongo-B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
06. Bajanga Wali	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
07. Katidiri	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
08. Pinumota	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
09. Kulingkinari	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
10. Bomba	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
11. Pohondongo	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
12. Pangempa	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
13. Teluk Kilat	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
14. Malenge -B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15. Malenge	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
16. Taoleh	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
17. Bolelengan	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
18. Talawanga	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
19. Talatakoh	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
20. Kabalutan	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
21. Kabalutan B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
22. Bukabuka	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
23. Miloh	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
24. Tg. Towali	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
25. Tg. Keramat	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
26. P. Bango	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
27. Pasokan	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
28. Tg. Towali-B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
29. Tg. Keramat-B	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
30. Tg. Keramat-C	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
31. Kabalutan-C	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
32. Benteng	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
33. P. Tombolang	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
34. Pontianak	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
35. Tg. Batutigang	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
36. Lundo	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
37. Siatu	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
38. Tg. Kanau	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
39. Tl. Tangkubi	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
40. Tj. Api	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
41. Rato	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
42. Tg. Towali	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
43. Tojo	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
44. Ampana	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
45. Ampana Tete	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4



**Figure 3. Potency of Marine Tourism of Tojo Una-Una Regency, Central Sulawesi**

**4. Master Plan Marine Tourism**

In the development of marine tourism in Togeang islands, Tojo Una-Una, the concept of the proposed development are: (1.) Improving the quality of the object and marine tourism attraction through improved facilities, infrastructure, institutional, human resources and promotion, (2.) Preservation of aquatic conservation area a type of coral reefs (barrier reef, fringing reef, lagoon, atolls and lagoons, small islands), as well as terrestrial (Malenge island protected areas with endemic habitat for several



species, such as tarsiers), living culture and preservation of cultural communities such as Bajo, Bongbongko, Bugis and Gorontalo and (3.) integrated development of tourist activity and the activity of mariculture, seaweed cultivation, cultured pearls as objects and attractions.

Delineation of the marine tourism development is based on the following criteria, namely: (1.) Uniformity of object types and intrinsic character and tourist appeal, (2.) The location of the access patterns of common objects and marine tourism attraction, (3) the proximity of marine attractions with the service centers, and (4) the proximity of the object distribution and attractions, geographically. Based on these delineation criteria can be developed regionalzaion based on physiographic unit, ecological and geographical.

Spatial arrangement of the Master Plan of Marine Tourism can be formulated into 6 (six) Marine Tourism Development Areas (MTDA) that carries a specific theme, namely: 1. MTDA A with the theme "Aquatic –Mariculture Tourism ", 2. MTDA B with the theme "Aquatic –Beach Tourism", 3. MTDA C with the theme "Beach-Terrestrial Tourism", 4. MTDA D with the theme "Aquatic Tourism", 5. MTDA E with the theme "Aquatic-Cultural Tourism", and MTDA C' with the theme "Beach-Terrestrial Tourism". In detail, the theme, scope, object and marine tourism attraction is presented in Table 4. and Figure 4.

## 5. Remarks

Master Plan of Togeian Island Marine Tourism was developed base on assessment of the potential aquatic, terrestrial cultural and tourism feasibility. Marine tourism development.

The spatial arrangement of the Master Plan of Marine Tourism can be formulated into 6 (six) Marine Tourism Development Areas (MTDA) that carries a specific theme, namely: 1. MTDA A with the theme "Aquatic –Mariculture Tourism ", 2. MTDA B with the theme "Aquatic –Beach Tourism", 3. MTDA C with the theme "Beach-Terrestrial

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Tourism", 4. MTDA with the theme "Aquatic Tourism", 5. MTDA E with the theme "Aquatic-Cultural Tourism", and MTDA C' with the theme "Beach-Terrestrial Tourism".

Table 4. Marine Tourism Development Area

MTDA	Theme	Area	Objects and Attractions
MTDA A	Marine Tourism-Mariculture	Taupuan, Kalingkinari, Bomba, Pasir Tengah, Pasir Tengah B, Tanjung Kanau, Una-una, Siatu	Dive Spot (Taupuan 1 & 2, Mimpingin, Light house, Gna gna, Jack's point, Merau, Fishomania, Kolehoh, Apollo), Taupuan Is., And Iguna, Bajo Comm., Atol Pasir Tengah, Karang Pelindung Siatu Is., Capatana beach, Tipeu beach, Poya beach, Tangkubi is., Mangrove (Tombulawa), Cave, Kenari crap watching, Old Mosque, Mariculture, Seagrass, fishery (pearl)
MTDA B	Aquatic-Beach Tourism	Kadidiri, Potondongo, Pinunota, Teluk Kilat, Pangempa	Dive Spot (Batu Gila, Domino Rock, Gap, Kadidiri House reef), Mangrove (Simpititi, Lembanato), Pangempa is., Mangrove boardwalk, animal watching, Lembanato beach, Tiupan is., Taipi is., Kadidiri is., Coral is., lake of <i>stingless jellyfish</i>
MTDA C	Beach-Terrestrial Tourism	Malenge, Taoleh	Dive Spot (Malingi, Lumputan), Pasir Putih beach, Papan is., Malenge is. with animal endemic: Togeian macaque ( <i>Macaca togeiana</i> ), Togeian lizard ( <i>Parasaurus togeiana</i> ), the babirusa or "pig deer" ( <i>Babirusa babirusa togeiana</i> ), Togeian Tarsier ( <i>Tarsius togeiana</i> ), Bajo comm., reef coral and white sandy beach (Bulako is., Makeat is., Lamo is., Takuhak is.)
MTDA D	Aquatic Tourism	Tg. Keramat, Pasoka, Tg. Keramat B, Tg. Keramat C	Dive Spot (Bullocki, Milly's Reef, Waten House Reef, Cape Baikapa), coral reef and white sandy beach (Tingki beach, Pougidan beach, Tanjung Keramat beach)
MTDA E	Aquatic-Cultural Tourism	Fortress, Kabalutan	Dive Spot (Bomber Plane Wreck, Gunung Lauri), Bajo comm. (Kabalutan, Enam is.), wali graveyard, fortress, graveyard of the Togeian King
MTDA C'	Beach-Terrestrial Tourism	Buka-buka, Tj. Api, Ampuna Tete, Ampuna, Rato dan Tojo	White sandy beach (Matako, Tombiano, Kole, Popot, Tampo, Ue Funtu, Mulocong, Ampuna, Labanah), bursts of fire Tj. Api, nature reserve of Tj. Api

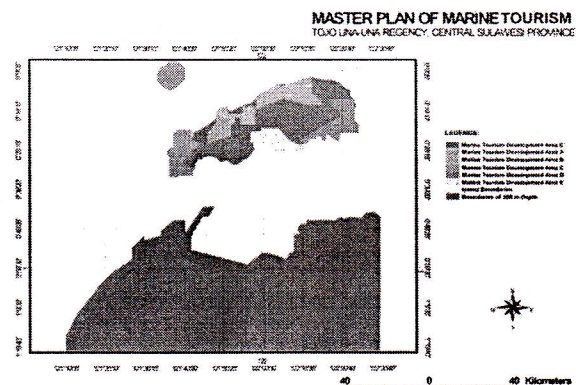


Figure 4. Mater Plan of Marine Tourism of Tojo Una-Una Regency, Central Sulawesi

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