

## **GILI MATRA MARINE NATURAL RECREATION PARK WEST NUSA TENGGARA PROVINCE - INDONESIA**

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### **History of Gili Matra Marine Natural Recreation Park**

Gili Matra Marine Natural Recreation Park has a total area of approximately 2,954 hectares, consists of 3 islands namely Gili Meno ( $\pm$  150 hectares), Gili Air ( $\pm$  175 hectares), Gili Trawangan ( $\pm$  340 hectares), and  $\pm$  2,289 hectares of marine area.

In 1993, Gili was designated a recreation park under the Minister of Forestry Decree Number 85/Kpts-II/1993, dated 16 February 1993, based on the proposal of the Governor of West Nusa Tenggara Province.

### **Management Objectives**

The management of Gili is based on Act Number 5 of 1990 concerning Conservation of Living Resources and Their Ecosystems. Therefore, the aim of the management of this Park is to protect the Park and its ecosystems, and also to utilize in sustainable way, the parks resources. The resources should be used for research, science, education, recreation and tourism purposes.

The main objectives of the management of Gili are outlined as follows:

1. To promote sustainable use of the Park's resources.
2. To encourage and integrate local participation in park management to protect biological values of the park and to eliminate further disturbances or alteration of natural habitats, to protect endangered and threatened wild animal species and their habitats, to maintain the locations designated for recreation and tourism development, to maintain sustainable use of commercial fish habitats, and to achieve compatible use and careful management of species' and their habitats.

### **Management Authority**

The responsible institution to manage Gili is the Natural Resources Conservation Office of West Nusa Tenggara (Balai Konservasi Sumber Daya Alam Nusa Tenggara Barat) under the Directorate of Forest Protection And Nature Conservation (DG of PHPA), Ministry of Forestry, Indonesia.

### **Problems**

The actual problems in Gili are those faced directly such as fishing using bomb blasting and poisoning. Anticipating the problems, sources of problems are first identified and then addressed. To do so, coordination among related institutions and parties is required since the problems cannot be managed by only a single agency such as West Nusa Tenggara Natural Resources Conservation Office.

Based on continual identification, the problem sources can be grouped into management intensity, social-economic conditions of the local communities, and the awareness of communities. However, the Park's management ability is still limited. This is due to lack of facilities, lack of expertise in marine ecology, limited human resources both in quality and quantity, and lack of technical guidance.

Many related institutions and parties are not really aware of the designation of Gili as a Park. Therefore, some conflicts between biodiversity conservation efforts and other development activities still exist. Thus, the benefits from Park management are not easily observed.

Other problems in Gili include muro-ami fishing. This method is very destructive to coral reefs, therefore West Nusa Tenggara Natural Resources Conservation Office in collaboration with Taskforce Gili Patrols, must patrol and inform users not to engage in this sort of fishing, especially in the conservation area.

In July 2002, Taskforce Gili Patrols and West Nusa Tenggara Natural Resources Conservation Office caught a group of muro-ami users. This case was solved using awiq-awiq, a law based on local customs. Fortunately, blasting and poisoning of fish and other marine species has not been observed since August 2000.

Figure 1. Transplanting corals at Gili Islands.



### Successful Management

1. Established designated management plan year 1998 – 2008.
2. Zoning for protection zone and exploitation zone.
3. Education of Youth Conservation Group. This group then forms a Youth Front Foundation of Taskforce Gili Patrols.
4. Joint protection operation between West Nusa Tenggara Natural Resources Conservation Office, Police, and Community (Taskforce Gili Patrols) in 2000 has succeeded to catch fish bombers that were sentenced to 9 months in jail.
5. Implementation of the agreement with coastal community in Northern West Lombok, which was signed by Head Of the Village and Head of Tanjung District, Gangga District, and Head of Pemenang District for:
  - The establishment of the Foundation of Fisherman Community Organization in Northern West Lombok to help the implementation of coastal security activities by Taskforce Gili Patrols.
  - Building and implementing a traditional rules, "*awiq-awiq*," which was implemented since 19 March 2000.
    - The maximum penalty is a fine of Rp. 10,000,000. There have been 6 cases recorded: bombing, 2 poisoning, and use of muro-ami. The sum of the collected fines was Rp. 25,500,000.
    - The sea and coastal security activities is done by the community, funded by NGO's, with awiq-awiq penalties. Activities include:
      - Conducting daily patrols.
      - Installing Park border signs.
      - Supporting infrastructure for coastal security activities.
      - Helping on community awareness and sustainable use of marine resources.

◦ When patrols arrest someone, the system of penalties is as follows: Firstly, awiq-awiq system. The sanction will be a penalty or a property seizure and signing a statement not to repeat the offence. Secondly, processing by law to conduct a further investigation by the police, and then bringing the case to court.

6. Installing mooring buoy in Gili Meno, Gili Air, and Gili Trawangan, 10 units each.
7. Sea turtle conservation programme.
8. Coral reefs inventory was conducted by West Nusa Tenggara Natural Resources Conservation Office, in cooperation with Mataram University and NGO's.
9. Making audiovisual documentation in Gili, in cooperation with Diponegoro University, Mataram University, and West Nusa Tenggara Natural Resources Conservation Office.
10. Establish environmental conservation groups in Gili to clean organic and inorganic pollutants.
11. The development of buffer zone area and coastal community building was done through coral rehabilitation using transplantation system, conducted in cooperation with Taskforce Gili Patrols and West Nusa Tenggara Natural Resources Conservation Office.

### **Current Legislation and Further Needs**

There are many laws in Indonesia pertaining to conservation. Listed below are some that could apply to management of Gili Islands.

1. Act Number 9 of 1985 concerning Fisheries.
2. Act Number 5 of 1990 concerning Conservation of Living Resources and Their Ecosystems.
3. Government Regulation Number 68 of 1998 concerning Sanctuary Reserve and Nature Conservation Area.
4. Sea and coastal management strategic plan 1998, Provincial Development Board (Bappeda) of West Nusa Tenggara Province.
5. Policy and strategy on coral reefs management in Indonesia, 2000.
6. Decree Head of Provincial Development Board of West Nusa Tenggara Province Number 5 of 1998 concerning Provincial Task Force Building in the Implementation of Coral Reefs Management and Rehabilitation Activity in West Nusa Tenggara Province.
7. Governor instruction Number 2 of 1998 concerning Prohibition of Coral Reefs Mining.
8. Governor Decree Number 141 of 2000 concerning Local Communication Forum Building in West Nusa Tenggara.
9. The "Awiq-Awiq" (traditional rules) of fisherman community of Northern West Lombok in March 2000, is a coastal community agreement in Northern West Lombok on sanction toward people who destroy marine resources, signed by Village and Sub District Officers.

The future efforts to increase the quality of marine resources in the context of community welfare through tourism are:

1. Capacity building by training and education.
2. Supply of supporting infrastructure for officers in Gili.
3. Publicizing the zoning scheme in Gili in order to conserve marine resources.
4. Strengthen coordination amongst stakeholders.
5. Technical and non-technical cooperation with domestic and international NGO's.

In order to implement those efforts, it is necessary to obtain:

1. More support from local government, other agencies, and local community.
2. Support from central government to strengthen relationships with international NGO's.

## Strategy and Program

A conservation strategy for Gili was developed by considering groups of problem sources, the Park's potential values, regulations, as well as environmental and socio-economic conditions of the surrounding communities. The strategies developed are:

- Promoting management activities for the Park and its resources.
- Assisting local communities to find other sources of income.
- Increasing the awareness of local community.
- Strengthening coordination among related institution and parties.

Each strategy is being detailed in action programs as the basis of management activities to be implemented. A five-year action plan was established in the form of a Five Year Plan that was described and detailed an annual plan. The annual plan is used to propose to the government to obtain budget for technical cooperation with other institutions.

Action programs formulated may vary from year to year. However, the basic program remains the same. The action programs implemented are shown as follows:

- Conservation planning:
  - Annual plan preparation
  - Proposed program activities plan preparation
- Monitoring and inventory:
  - Coral reefs monitoring and inventory
  - Database development and management
- Biodiversity management and safeguarding:
  - Hawksbill turtle semi-natural hatching development
  - Artificial reefs establishment
  - Integrated operation
  - Regular patrolling
- Data and information:
  - Providing data on visitors, disturbances, and Park biodiversity
- Manpower management by training
- Facilities provision and maintenance:
  - Provision of facilities and equipment
  - Maintenance of facilities and equipment
- Assisting local community development:
  - Providing demonstration plots of marine flora and fauna, managed by local community
- Promoting community awareness:
  - Coordination meetings on planning and sustainable utilization
  - Conservation education and extension
  - Conservation exhibitions
  - Information dissemination

## Conclusion

The paper provides a brief overview of the present management status of Gili. Inputs based on experience from other marine parks will be adopted and integrated for better management at Gili. It is hoped that the experience of management from Gili may one day be useful for other marine protected areas.