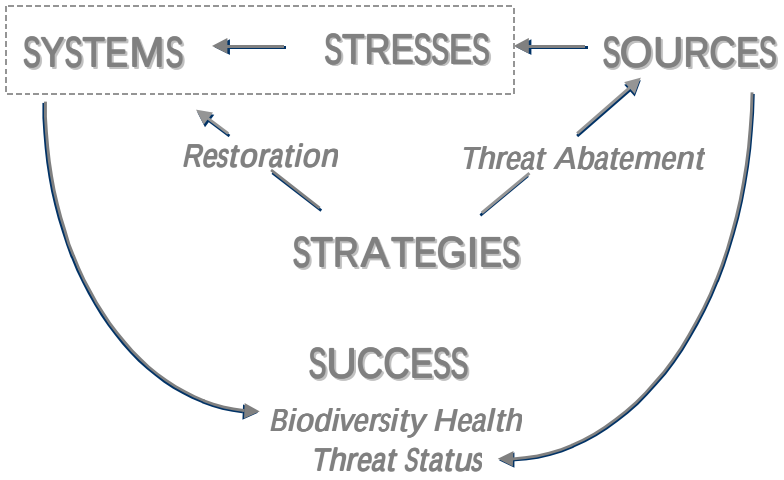
# Stakeholder involvement in the Site Conservation Planning Process for Komodo National Park

# Workplan and budget

**February – June 2001**




**Contacts**

**Peter J. Mous**
TNC CMP-Indonesia, Senior Program Officer
TNC Coastal and Marine Conservation Center, Bali, Indonesia
phone +62-361-287 272, fax +62-361-270 737, pmous@attglobal.net

**Maya Gorrez**
TNC APRO, Science Officer
TNC HQ, Arlington, USA
phone +1-703-841 5300, fax +1-703-841 1283, mgorrez@tnc.org

The Nature Conservancy

## 1. Introduction

Site Conservation Planning is an established tool for the management of the marine biodiversity of Komodo National Park. The recently endorsed 25 Year Management Plan for Komodo National Park is based on the outcome of SCP-like processes, and each of the five S's are represented: It identifies the Systems that are found in the Komodo area, the Stresses and Sources of stresses that act upon these systems, and it recommends Strategies for protection. Finally, it proposes monitoring programs to assess the Success of the conservation program, some of which have already been implemented. The 5 Year Management Plans too will be based on SCP. This proposal aims to involve local communities in SCP, so that they understand, support and participate in conservation management.

The very first Site Conservation Planning iteration for the marine resources of Komodo National Park was done in 1999. The second iteration (see Appendix I) evolved after discussions during a field trip to Komodo in April 2000. This version of the Site Conservation Plan was presented at the June 2000 team meetings in Bali and at the November 2000 Conservation Strategies Conference in Colorado Springs. This second iteration added three new conservation targets (cetaceans, sea turtles and manta rays) to the four targets that were identified in the first iteration (coral reef communities, mangroves, seagrass beds, fisheries species). In a future iteration the targets will include sharks, that are heavily exploited in the Park and throughout Indonesia for their fins. Furthermore, the category 'fisheries species' will be re-grouped to allow differentiation between 'invertebrates' and 'bony fishes' that have largely differing exploitation characteristics. The marine conservation program for Komodo National Park includes monitoring programs that are tied to the conservation targets, and that help to identify 'Stresses', 'Sources of Stress' and 'Strategies'. Most importantly, the monitoring programs help to assess the final 'S': conservation Success. There are few other conservation programs besides Komodo where each of the five S's, including the measurement of Success, is actually implemented.

Community inputs in the SCP process where hitherto indirect, namely through community meetings, participatory mapping and resource utilization monitoring. A more direct involvement in SCP would enhance community support for conservation management. It may even be possible to use community-based SCP for involving communities in some aspects of marine protected area management. However, direct involvement with SCP is only possible if communities understand the systems that they interact with –or if they are able to translate existing knowledge into management actions. Also they need to be aware of how their own activities impact ecosystems. To efficiently involve communities in SCP, a comprehensive community education and awareness program must be implemented first. Finally, the success of the community program, including the SCP module itself, must be assessed.

This proposal presents an integrated approach to community education, awareness and SCP. It builds on the Rural Participatory Appraisals that are currently being implemented by the Community Awareness & Development (CAD) staff of the Conservancy's Komodo Field Office. A community-friendly method for SCP has already been introduced to the CAD team by Maya Gorrez during her visit to Komodo (Jan. 29 – Feb. 2 2001, Appendix II).

## 2 Objectives

The ultimate objective of the proposed activities is to enhance conservation management of Komodo National Park through community involvement. Proximate objectives are:

- To enhance the communities' factual knowledge on the ecosystems they interact with and on the threats that these ecosystems are exposed to.
- To enhance the communities' awareness how their actions can affect ecosystems. A field test of the community-friendly SCP methodology showed that fishermen are already aware that blast fishing causes lower catches, and they also see fishing by 'outsiders' as a cause for their decreased catches. (Appendix III). However, they seem to be unaware (or they are unwilling to admit) that their own fishing activity also adds to the exploitation pressure to the stocks. To get communities to contribute in a meaningful way to the solution (by conducting a community-based SCP), they first need to be made aware that they may be part of the problem too.
- To conduct community-based SCP at each of the villages, focusing on cause-effect relationships that are characteristic for the local situation.

## 3 Activities

### *3.1 Community education & awareness*

- Use results from current Rural Participatory Appraisal (RPA) to assess education and awareness needs. Fieldwork for the RPA takes place in the period February-March 2001.
  *Total effort for this activity*: US$ 2,000 (CAD-team personnel costs).
- Implement an education strategy focussed on linkages between components in the marine ecosystem. The flip chart on coral reefs can be used as a learning aid. This involves organization and facilitation of community meetings together with Conservation Cadres at each of the ca. 20 villages and settlements.
  *Period*: March-April 2001

*Total effort for this activity*: US$ 7,000 (CAD-team and Conservation Cadre personnel costs, travel by speedboat, meeting costs).

- Educate communities about threats to components of the marine ecosystem, and instill awareness that these threats are caused by a variety of sources, including the exploitation pressure exerted by the community themselves.
  *Period*: April-May 2001
  *Total effort for this activity*: US$ 7,000 (CAD-team and Conservation Cadre personnel costs, travel by speedboat, meeting costs).

*3.2 Community involvement in SCP*

- Conduct SCP according to methodology outlined in Appendix II at each of the villages. In cooperation with the Lore Lindu program, a translation of this document into Bahasa Indonesia will be made. Each of the S's will be dealt with as explicitly as possible, to avoid replication of the SCP outlined in Appendix III. In other words, instead of listing 'fish stocks' as a conservation target, the facilitators will aim to find out *which* stocks matter most to each community (for example, the Spanish mackerel around Sabolon, skipjack off Seraya, or squid in Loh Liang). Total effort for this activity: US$ 7,000 (CAD-team and Conservation Cadre personnel costs, travel by speedboat, meeting costs). Also 'Strategies' as formulated by the community should be local and specific to be meaningful. For example, rather than state that 'closed areas' are a meaningful management option, the facilitators should invite the villagers to indicate on a map which areas they would like to close and for which fishing methods they would like to implement this.
  *Period*: May-June 2001.
  *Total effort for this activity*: US$ 7,000.
- Integrate community-based Site Conservation Plans into a final report that will be used as input for the 5 Year Management Plan. The final report will also contain an evaluation.
  *Period*: June 2001
  *Total effort for this activity*: US$ 2,000 (CAD-team personnel costs).

**4. Budget**

| Expenses | US$ | |
|---|---|---|
| *Personnel*: 75% of CAD-team (as listed under section 5) for 4 months | 10,000 | |
| *TOTAL PERSONNEL* | | 10,000 |
| *Temporary agency fees*: Per diems of 2 volunteers and 1 village representatives (Rp. 50,000 per village per day, 20 villages, 3 modules of each two days) | 600 | |
| *TOTAL CONTRACTUAL* | | 600 |
| *Field trip expenses* | 400 | |
| *Telecommunication* | 1,000 | |
| *Printing and photo* | 500 | |
| *TOTAL COMMUNICATION* | | 1,900 |
| *Office supplies* | 750 | |
| *Non-office supplies* | 750 | |
| *Vehicle maintenance*: contribution to operational speedboat costs for transport by speedboat of staff to/from villages | 1,000 | |
| *Vehicle fuel:* fuel for speedboats for transport to/from villages | 1,000 | |
| *TOTAL SUPPLIES* | | 3,500 |
| *TNC-sponsored meetings*: venues for meetings, food and soft drinks during meetings (Rp. 25,000 per participant per day, 30 participants per meeting-day, 120 meeting-days) | 9,000 | |
| *TOTAL OTHER EXPENSES* | | 9,000 |
| *GRAND TOTAL* | | 25,000 |

**5. Project staff**

*General supervision*: Subijanto, Komodo Project Leader, TNC Komodo Field Office

*Coordination*: Harsono, Community Awareness and Development team Coordinator, TNC Komodo Field Office

*Implementation and supervision of facilitators*: Paramita “Pammy” Budhi Utami, Community Awareness Officer, TNC Komodo Field Office

*Field assistants*: Zulkilfli and Fisabilil Haq, both from the TNC Komodo Field Office

*Facilitators*: for each session, two trained representatives of the Conservation Cadres and one trained representative of the community will be engaged. The village representative will also act as a translator (Bahasa Indonesia – Bahasa Bugis, Bahasa Bajo, etc.)

*Technical advice*: Maria Gorrez, Science Officer, TNC HQ

## Appendix I: Strategies for the abatement of threats to marine biodiversity in Komodo National Park

*compiled by Peter J. Mous, based on results from the Site Conservation Planning meetings held at the Bali Holiday Inn, June 14-17 2000*

*draft, June 26, 2000*

***Table 1**. Targets for marine conservation.*

| Conservation Targets | Remarks |
|---|---|
| 1. coral reef communities | This conservation target includes both 'true' coral reefs and the rocky shores in the South of Komodo National Park. The natural communities found at these rocky shores are similar to those of the 'true' coral reefs, but the rocky shores often harbor a higher biomass and diversity of non-coral invertebrates. |
| 2. mangroves | Relatively small patches of mangrove can be found throughout the Park, whereas the Northern part of Rinca has a more extensive mangrove forest. |
| 3. sea grass beds | The sea grass beds in the Park are not yet adequately mapped. Those sea grass beds that were explored were diverse and in excellent condition |
| 4. fisheries species | This category comprises all living aquatic resources that are exploited (fish, lobster, sea cucumbers, seaweed, etc.). |
| 5. cetaceans (whales and dolphins) | During surveys in October 1999 and May 2000, in total 14 species of whales and dolphins were found in and around the Park. As these species spend only part of their life-cycle in the Park, site-based management cannot fully ensure the protection of these species. |
| 6. turtles | Both green turtles and hawksbill turtles use some of the beaches in the Park for nesting. As these species spend only part of their life-cycle in the Park, site-based management cannot fully ensure the protection of these species. |
| 7. manta rays | The existence of manta ray aggregation sites in the Park makes Komodo a world-class diving destination. As manta rays are such an important asset to the Park, it was decided to rate this species as a conservation target. It is not yet clear to what extent manta rays fulfill their life-cycle in Park waters. |

***Table 2**. Threats to marine biodiversity in general and to Conservation Targets (cf. Table 1) in particular.*

| Threats | Remarks |
|---|---|
| 1. blast fishing | In Indonesia, destructive fishing practices not only deplete the fish stocks, they also cause significant damage to the coral reefs. Blast fishing is probably the most destructive among these fishing practices, causing a loss of live coral cover of about 3.75% per year. In the Komodo area, blast fishing was used both by local and immigrant fishers. |
| 2. cyanide fishing | Cyanide solutions, a potent anaesthetic for fish, are used to catch aquarium fish and live fish for the Hong-Kong based trade in live food fish. Though the cyanide fishery for food fish is probably not as destructive to coral reefs as is blast fishing, this fishery degrades biodiversity through depletion of the targeted fish populations. The cyanide fishery for aquarium fish may be more destructive to coral reefs than the cyanide fishery for food fish, because more cyanide is applied. Both types of cyanide fishery are found throughout Indonesia, including the Komodo area. |
| 3. 'bubu'-trap fishing | 'Bubu'-traps are used to catch fish for local consumption, fish for the live reef fish trade, and aquarium fish. Usually, a the fisher clears a patch of branching corals to place the trap, and the trap is then covered with the coral branches. |
| 4. reef gleaning | Reef gleaning, the practice of collecting a variety of organisms such as sea cucumbers, abalone and lobster from the reefs, causes extensive damage to the coral reefs. Fishers sometimes even use crowbars to break away corals in pursuit of their target. |
| 5. tuba fishing | In contrast to cyanide fishing, 'tuba'-fishing aims to catch fish for local consumption by using a variety of poisons. In the Komodo area, fishers disperse a mix of insecticides and sand over sea grass beds to catch rabbit fish. |
| 6. over-exploitation | Any fishing method, both destructive and non-destructive, can cause over-exploitation if there are too many fishers who apply it. Over-exploitation, often caused by the 'tragedy of the commons' in combination with ineffective management, results in a sub-optimal production of the exploited species. The solution to over-fishing is to decrease the exploitation intensity. Over-exploitation can become a biodiversity issue if the high exploitation intensity causes the biomass of the stocks to reach dangerously low levels. In Komodo, the stocks of *Trochus* are already depleted, and presently the exploitation pressure on the species targeted by the live reef fish trade is many times higher than can be sustained. |
| 7. Habitat loss through destructive fishing practices | Though habitat loss is a direct result of the destructive fishing practices mentioned above, it is listed here as a separate threat because one possible strategy to abate it, namely habitat restoration, does not directly relate to destructive fishing practices. |
| 8. Bycatch / discards from other fishing practices | Some fishing methods, though targeting one specific species, cause mortality in other aquatic species that are either utilized (bycatch) or left behind (discards). Trawling for shrimp is the classic example of a fishing method that caused exceptionally high levels of bycatch/discards, but also gillnets can cause high mortality in non-target fish, sea turtles and even in whales and dolphins. Gillnets are commonly used in and around Komodo National Park. |
| 9. Anchoring | Anchoring damage to the reefs is mainly caused by boats that carry dive tourists. |
| 10. Diver damage | Especially beginning SCUBA divers, who are only starting to learn how to control their buoyancy, can cause damage by bumping into the fragile corals. |
| 11. Predation by other wildlife (wild boar, Komodo dragons, feral dogs) | For many species in the wild, predation is the most important factor contributing to their mortality. Introduction of predators, or removing the natural enemy of predators, may cause predation levels to reach dangerously high levels. In the Komodo area, wild boar are known to cause a high mortality in the eggs and hatchlings of the already threatened sea turtle populations. |
| 12. Loss of nesting habitat by coastal development. | Coastal development can destroy turtle nesting beaches, mangrove forests, sea grass beds, etc. The pressure from coastal development in the Komdo area is presently low, but as the economy of Indonesia expands, coastal development may pose an important future threat to the biodiversity in the area. |
| 13. Shipping | Ship's propeller can wound whales, sea turtles and dugongs. |
| 14. Global warming | Global warming can cause extensive degradation of coral reefs and other coastal habitats. Abnormally high water temperatures caused coral bleaching and massive coral mortality throughout the Asia-Pacific region in 1998. Sea level rise, one of the potential effects of global warming, may also cause the death of coral reefs and mangrove areas. The Southern part of the Komodo area is somewhat protected against the effects of high water temperatures because of upwelling of cold water from the deep. The 1998 bleaching event caused only little coral mortality in Komodo. |

***Table 3**. Strategies to abate threats to marine biodiversity.*

| Strategies | Status | Remarks |
|---|---|---|
| 1. Generate funds for Park management through development of responsible eco-tourism. | In advanced planning stage | With the changing political structure of Indonesia, new ways of Park financing can be explored. Whereas under the 'New Order' Park revenues were distributed among various government agencies, the present political constellation allows for Park revenues to be fed back to Park management and to development of local communities. This provides an incentive to increase Park revenues through improved Park management and development of eco-tourism in the area. The Conservancy is working together with the Park authority, a local business partner, and GEF to develop a tourism concession for Komodo National Park. |
| 2. Establish zoning system and clear regulations for KNP. | In process | The Conservancy was invited by the Park authority to contribute to the 25-year management plan for the Park. The district government already ratified the new management plan, and it is expected that the other government agencies involved will sign in July 2000. The management plan encompasses a zoning plan for the Park and regulations that will protect the biodiveristy of the Park. |
| 3. Implement awareness and education program. | Ongoing | The Conservancy's Komodo Field Office implements an extensive awareness program, consisting of visits to local communities, distribution of awareness materials, and guiding government officials to the Park. Based in Jakarta, the graphical design unit produced a comic book in Bahasa Indonesia on blast fishing, a flipchart on marine conservation that can be used in the villages, and various display materials. The Conservancy assisted in the production of various video documentaries on marine conservation in Komodo National Park. Two of these documentaries were broadcast by ABC and the National Geographic Channel. A workshop about techniques for social marketing of conservation, facilitated by RARE, was held at the Komodo Field Office in April 2000. A web site is presently under construction to introduce Komodo National Park to a wider national and international audience. |
| 4. Build constituency for marine conservation in KNP (and beyond). | Ongoing | The Conservancy formed alliances with, amongst others, the national Park authority, with the Indonesian Navy, the Central Fishery Research Institute, and with the Ministry of Marine Exploration to further marine conservation in Komodo National park and beyond. |
| 5. Develop alternative livelihoods – pelagic fishery. | In process | The Conservancy's Komodo Field Office involved two local communities in a pelagic fishery development project. The project aims to deflect fishing pressure from the coral reefs to the open seas, which are less prone to local overexploitation. The project comprised the introduction of new fishing techniques to the crews of ca. 40 boats, the installation of fish aggregating devices (FADs), and fish processing course for the part of the community that does not participate in the actual fishing. Usaha Mina, a national fishing company, markets the catch and helps with the maintenance of the FADs. |
| 6. Develop alternative livelihoods – fish culture. | In process | The Conservancy is planning to develop a fish hatchery that will supply grouper fingerlings for grow-out in fish cages operated by local communities. This project not only provides an alternative livelihood, it also contributes to the market transformation of the live reef fish trade from unsustainable, capture-based to sustainable, culture-based. The broodstock for the hatchery is already secured, and it is anticipated that the hatchery will become operational in 2001. For this project, The Conservancy partners with the Gondol Research Station on Coastal Fisheries (Bali, Indonesia), the Queensland Department of Primary Industries (Australia) and the Network of Aquaculture Centres in Asia (NACA). |
| 7. Assist with enforcement of the ban on destructive fishing practices. | Ongoing | A staff from the Komodo Field Office coordinates a weekly marine patrol in the Park, for which one of the project speedboats is used. This patrol consists of representatives from the Park authority, the Navy, and the police. After the regular patrols were started in 1996, blast fishing incidence as recorded by the ranger stations dropped by 80%. |
| 8. Implement coral reef rehabilitation program. | Research project in process | Working with a PhD student from Berkeley University, California, The Conservancy is exploring methods to rehabilitate areas in Komodo National Park that were damaged by blast fishing. This research project investigates various methods to stabilize rubble substrate, thereby enhancing the conditions for coral settlement. |

***Table 3**, continued*

| Strategies | Status | Remarks |
|---|---|---|
| 9. Implement mangrove rehabilitation program. | Under consideration | Though local communities use mangrove wood for fuel and building materials, it is not yet clear to what extent the mangrove forests in the Park are degraded by cutting. Once the severity of the problem is assessed, a mangrove rehabilitation program that builds on past experiences from the Park management authority will be designed. |
| 10. Place mooring buoys for tourist boats and involve tourism industry in mooring buoy program | In process | The Conservancy installed 25 mooring buoys in the Komodo area, and is presently working with dive charter boat owners to install additional moorings. |
| 11. Protect sea turtle nests and hatchlings from predation. | Under consideration | A preliminary field survey showed that wild boar causes high mortality in sea turtle eggs in the Komodo area. Park rangers protected some of the nests by screening the nests with chicken wire. Once the severity of this problem throughout the Park is assessed, The Conservancy plans to assist with this protection program. |
| 12. Culling of predators. | Under consideration | The Park authority undertakes regular campaigns to shoot feral dogs. If the need arises, The Conservancy will consider to become involved in this program. |
| 13. Enforce regulations on shipping routes. | Under consideration | Whereas heavy shipping is not yet a problem in the remote Komodo area, it may become an issue as the local economy expands. As a precaution, The Conservancy proposed to expand Park boundaries so that the Park area includes cetacean migration routes. |
| 14. Implement monitoring programs for Conservation Targets to support management. | In process | The Komodo Field Office presently conducts four monitoring programs, each directed at a Conservation Target: the coral reef monitoring program assesses the change in live coral cover over the years, the fish monitoring program shows how the grouper populations react to changes in exploitation pressure, and the resource utilization monitoring program reveals the exploitation patterns in the Park. Since late 1999, the Conservancy also supports a cetacean monitoring program. These monitoring programs are important feed-back to management, and they provide a measure of success of the conservation program. Monitoring programs for mangroves, sea grass beds, turtle nesting beaches and manta rays are being considered. |
| 15. Develop capacity to analyze and disseminate information to support conservation management (databases, GIS). | In process | The Conservancy's Komodo Field Office and Bali Office maintain databases for each of the monitoring programs. With the support of the Conservation Technology Support Program, a geographic information system (GIS) of the Komodo area is being maintained. With the GIS, maps for the 25-year management plan were produced. |

***Table 4**. Relationship between 'Conservation Targets' and 'Threats' in Komodo (very high, high, medium, low: measure of the severity of the threat to each of the Conservation Target). The rating takes into account the reversibility of the threat and its geographical scope.*

| **Threats** / **Targets** | 1. Blast fishing | 2. Cyanide fishing | 3. 'Bubu'-trap fishing | 4. Reef gleaning | 5. Tuba fishing | 6. Over-exploitation | 7. Habitat loss through destructive fishing practices | 8. Bycatch / discards from other fishing practices | 9. Anchoring | 10. Diver damage | 11. Predation by other wildlife (wild boar, Komodo dragons, feral dogs) | 12. Loss of nesting habitat by coastal development. | 13. Shipping | 14. Global warming |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Coral reefs | high | medium | medium | high | low | - | - | - | medium | medium | - | - | - | low |
| 2. Mangroves | - | - | - | - | - | medium | - | - | - | - | - | - | - | low |
| 3. Sea grass beds | - | - | - | - | - | low | - | - | - | - | - | - | - | low |
| 4. Fisheries species | - | - | - | - | - | very high | very high | medium | - | - | - | - | - | - |
| 5. Cetaceans | medium | - | - | - | - | medium | - | low | - | - | - | - | low | - |
| 6. Turtles | medium | - | - | - | - | high | - | medium | - | - | high | high[(1)] | - | - |
| 7. Manta rays | low | - | - | - | - | low | - | low | - | - | - | - | - | - |

***Notes***

*(1) Because of coastal development outside the Park that may affect turtle populations inside the Park.*

***Table 5**. Relationship between Threats and Strategies.*

| | 1. Generate funds for Park management | 2. Establish zoning system and clear regulations for KNP. | 3. Implement awareness and education program. | 4. Build constituency | 5. Develop alternative livelihoods – pelagic fishery. | 6. Develop alternative livelihoods – fish culture. | 7. Assist with enforcement of the ban on destructive fishing practices. | 8. Implement coral reef rehabilitation program. | 9. Implement mangrove rehabilitation program. | 10. Deploy mooring buoys | 11. Protect sea turtle nests and hatchlings from predation. | 12. Culling of predators. | 13. Enforce regulations on shipping routes. | 14. Implement monitoring programs | 15. Develop capacity for information manatement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Blast fishing | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 2. Cyanide fishing | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 3. 'Bubu'-trap fishing | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 4. Reef gleaning | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 5. Tuba fishing | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 6. Over-exploitation | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 7. Habitat loss through destructive fishing practices | ✔ | ✔ | ✔ | ✔ | - | - | - | ✔ | ✔(1) | - | - | - | - | ✔ | ✔ |
| 8. Bycatch / discards from other fishing practices | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ |
| 9. Anchoring | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | ✔ | - | - | - | ✔ | ✔ |
| 10. Diver damage | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | - | - | - | ✔ | ✔ |
| 11. Predation by other wildlife | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | ✔ | ✔ | - | ✔ | ✔ |
| 12. Loss of nesting habitat by coastal development. | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | - | - | - | ✔ | ✔ |
| 13. Shipping | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | - | - | ✔ | ✔ | ✔ |
| 14. Global warming | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - | - | - | - | - | ✔ | ✔ |

***Notes***

*(1) Habitat loss through excessive mangrove cutting.*

# APPENDIX II. SITE CONSERVATION PLANNING COMMUNITY CONSULTATION METHODOLOGY REVIEW FOR KOMODO NATIONAL PARK

3 February 2001

## CONTEXT

The Komodo National Park project is in the process of integrating the site conservation planning process into its Community Awareness and Development (CAD) program. The current CAD team is composed of a CAD Senior Coordinator, Harsono, Community Awareness Officer, Paramita B. Utami, and two CAD Field Assistants, Fisabilil Haq and Zulkilfli. The objectives of SCP activities held at the Komodo Field Office (KFO) were as follows:

1. To introduce the CAD Team, relevant KFO staff and other potential community consultation facilitators to the site conservation planning process.
2. To develop a simplified methodology with which to conduct community consultations for the SCP process.
3. To test the simplified methodology on at least one local community.

Ultimately, TNC aims to use the SCP as a means to lend technical assistance to the Komodo Parks Authority (PKA) in the development of the five year management plan for KNP.

## COMMUNITY CONSULTATION METHODOLOGY DEVELOPMENT

A total of one day was devoted to introducing site conservation planning in detail to the participants. In-depth discussions about the SCP process, its purpose and the importance of stakeholder participation to the process were conducted. Using the Lore Lindu National Park (LLNP) project methodology, the participants then devoted a half day to devising a simplified version for use at the community level. Through discussions it was decided that the LLNP methodology was too complex for use in Komodo communities and was in need of further simplification. Due to time constraints in meeting our objectives, this facilitator developed a trial methodology that was tested on the participants as a training exercise. This activity met with success and the participants felt that the methodology is simple enough to employ at the community level but at the same time is able to extract important information needed for the SCP process.

This simplified SCP methodology is based on the experience of the CAD team that strategic group discussions are the best way to elicit information from local communities. Therefore, the methodology was developed in this format using the following questions to focus on determining primary community targets systems, critical threats and priority strategies.

1. What is important to you in Komodo National Park?
   - This is to gain an indication of community target systems.

2. What is happening to those targets in the park?
   - This is to understand the situation including stresses and sources on those targets within the conservation area.

3. What do you think the solution(s) is/are to the problems with the community targets?
   - Determine the community's willingness to support and participate in the implementation of conservation strategies.

**SIMPLIFIED SCP METHODOLOGY FOR KOMODO NATIONAL PARK PROJECT**

**Assumptions**:

1. Biological information is combined with human context information.
2. Each step of the process is carefully explained to the participants.
3. A recorder is assigned for each discussion session in order to document salient discussion points and other relevant information that is articulated in the course of discussion.
4. The methodology is designed for a focused discussion group forum. Prioritization of targets, threats and strategies is conducted through open votation or discussion.

| STAGE I | SYSTEMS (Conservation Targets) |
|---|---|

**Objective: To identify eight biological systems that represent community conservation priorities or community targets, and to collect information and descriptions of these systems.**

**Process**:

1. Metaplan cards are distributed to all participants, who are asked to write on separate cards one (or more) things they most value about the National Park, its ecosystem functions, or its natural resources.

**Key Question**: What is important to you in the conservation area/site? Why is it of importance to you?

2. The cards are collected, and stuck on a board, according to apparent/logical groupings.
3. A name is developed for each group of cards, written on a circular 'systems card'. Alternatively, illustrations/caricatures can be used to represent these target systems for a more visual- oriented audience.
4. Narrow all the systems down to eight targets by having the group prioritize among the different systems through discussion.

**Key Question**: Which among these systems are of the most importance to you? Arrange them from the most to the least important. This is done recognizing that some target systems may be of equal importance.

5. A description of these 8 prioritized systems is developed, and written down. System names and their descriptions are placed on a side-board. Systems must be defined very clearly.

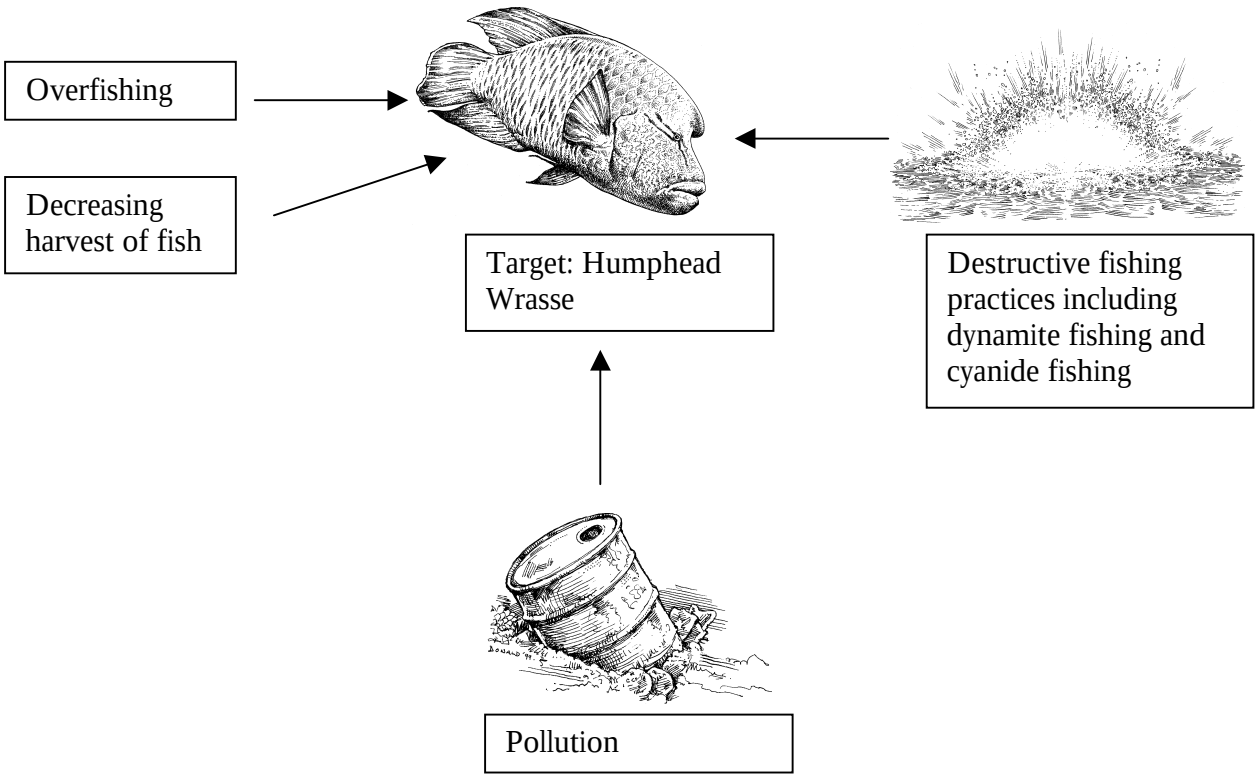
| STAGE II | THREATS (STRESS AND SOURCE) ANALYSIS |
|---|---|

**Aim:** **Determine critical threats that are acting to degrade each system.**

**Process**: Use of modified situation diagrams

1. Divide the participants into 4 working groups, each addresses 2 systems. (Do this only for a large group of 20 or more. Each group should be composed of no more than 7 people.
2. On a flipchart or board, write a system down at the center with a circle around it or place the picture of the target in the middle of the board/flipchart. A combination of both is also acceptable. Distinguishing between stresses and sources is not done by the communities for this methodology but rather, will rely on the Facilitator to be able to focus on the distinction between the two and guide the discussion accordingly. Emphasis should be given to understanding the cause and effect relationships that are articulated, the activities/events that lead to system degradation and the underlying reasons for these activities.

**Key Question**: What is happening to this target within the conservation area or site? What negative effects are destroying or affecting the targets? What activities or forces are causing those effects? What is driving or motivating these activities/factors?



3. Write down the threats on paper and place it around the target system. Situational notes are incorporated into this diagram as the discussion takes place.
4. Determine the critical threats through a prioritization of named threats.

**Key Question**: Which among these negative impacts and activities are you the most concerned about? Why? Which affects you the most? The least?

5. Critical threats to each system are the top 4-5 threats that are given the highest priority.
6. Threats that are common across all systems are homogenized for language so identical stresses are referred to in the same terms.

| **STAGE III** | **FORMULATION OF STRATEGIES** |
|---|---|

**Aim:** **To formulate strategies aimed to mitigate the critical threats acting on the priority systems.**

**Process**:

1. The floor reviews each system diagram – showing systems and threats. These are described verbally for 5 minutes each (max.)
2. Critical threats common to several systems are listed per the systems they affect.
3. Critical threats are divided amongst 4 break-out groups (use different membership to previous exercise) – perhaps 2 stresses and 2 sources each – the group brainstorms a variety of strategies. Brainstorm – no strategies are rejected, all are written down. Discuss potential strategies and define them very clearly. List potential stakeholders other than the engaged community as they are mentioned in the discussion.

**Key Question**: How can these threats/negative impacts be addressed? How can the condition of the important systems be improved? Who needs to be involved in the implementation of these solutions?

4. Strategies and stakeholders are listed for each source.

| CRITICAL THREATS | SYSTEMS THEY AFFECT |
|---|---|
| Destructive Fishing Practices | 1. Fish communities<br>2. Coral communities |
| Overfishing | 1. Fish communities |

5. The strategies are then prioritized according to the participants' willingness to support the strategy and/or participate in its implementation.

**Key Question:** Which of these strategies would your community be willing to support or participate in the most? Which is of greatest importance to this community?

## SUMMARY OF INFORMATION

Summarize community consultation results using the table below. From this exercise, the following information sets are derived from the communities for incorporation into the SCP framework. While the rankings from this community consultation do not directly correspond to the ranking parameters used for the assessment of each framework component (Systems, Stresses, Sources, Stakeholders and Strategies), the overall results are reflective of the community stakeholder conservation priorities in terms of their primary targets, critical threats, priority strategies and primary stakeholders. These community perspectives are then taken into consideration by the project planning team when determining actual planning targets for conservation management and appropriate strategies to address the critical threats affecting them.

| STRATEGIES | THREATS | SYSTEMS | STAKEHOLDERS |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**FOR PROJECT TEAM**

| STAGE IV | FORMULATION OF INDICATORS OF SUCCESS |
|---|---|

**Aim :** **To assign indicators of success for each listed strategy, and to develop programs for monitoring these indicators.**

**Process**:

1. What is success ? The original system diagrams and graphs can be used to demonstrate a positive change in system condition.
2. How can this change be shown ? What is the important factor that must be measured? Establish and list indicators.
3. How can these indicators be reliably and simply measured ? Who does the measuring?
4. How can changes in the stress or source impacting this system be measured?
5. Develop a monitoring plan, with community involvement or independent third party to monitor results. (see BCN book on Indicators of Success).

### METHODOLOGY TRAINING

The participants underwent this simplified methodology as a training exercise for facilitating such a process in actual communities. The methodology was also tested on a group of 12 local fishermen from Labuan Bajo with three trainee facilitators leading the discussions. Both activities met with good results. The team of potential facilitators were able to fully comprehend the goals of the process and more importantly, understand how to achieve these goals. The preliminary consultation with the fishermen was also successful as a trial effort. With some innovation, the facilitators were able to engage the fishermen in a discussion on the primary threats they perceived in KNP and specific strategies to abate them.

## LESSONS LEARNED

Some lessons that were learned through actual engagement of stakeholders are the following:

1. The application of the simplified methodology must be flexible enough to adapt to individual community dynamics. The communities must feel free to communicate their concerns in the manner that they are comfortable.
2. Facilitators must always be neutral when consulting with communities and not lead them to any biases or perceptions the facilitator may have.
3. Questions that are used to lead the discussion must be very specific, clear and simple in order to extract key information.
4. Preparedness is a necessity to facilitation. Before engaging communities, facilitators must plan for the activity by delineating responsibilities among facilitators, the approach to be used, tools to be used etc.
5. Site Conservation Planning provides a truly participatory process to incorporate community views into the overall management plan.

## COMMUNITY CONSULTATION ACTIVITIES

Following are activities that the CAD team will implement of the next five month period. These activities will be in conjunction with the original CAD workplan for engaging communities in Komodo and Sape. The SCP community consultations are being integrated into the CAD workplan as part of its mission to conduct focus group discussions on environmental and community issues. The methodology itself will be coordinated closely with participatory rural appraisal (PRA) activities of the CAD.

1. Translate abridged SCP version (16 page) and simplified methodology guidelines into Indonesian and distribute them to training participants. These will also be used in future training sessions. (February)
2. Coordinate all community consultation activities with PKA.
3. Socialize the SCP process with stakeholders through more generalized meetings prior to actual consultation (February).
4. Contract trained facilitators for community consultation work. Contract fees are estimated to be Rp. 20,000 per day/per person/for approximately three 12 weeks (February).
5. Recruit and train community level facilitators. Community level facilitator fees are estimated to be Rp. 10,000 per day/for one week per village (February).
6. Actual community consultations in 10 Komodo villages from February to April and 8 village in Sape from May to June.
7. Each community consultation should have an individual report that outlines how the community was engaged and community targets, stresses and sources to priority targets and strategies are clearly stated with supplementary information that contributes to documentation in the SCP tool. A standard format for community consultation reporting is being developed and will be distributed to site teams (Maya: action item).
8. Engage non-community stakeholders (PKA, Fisheries Office, Police etc.) in consultation meetings for input into the SCP process. Like the community consultations, the results of these broader stakeholder should be documented.
9. Analysis of data from community and other stakeholder consultations (May).

10. Formulate site conservation plan with available information (June).
11. Present results to PKA for their consideration in developing the five year management plan for KNP. This bearing in mind that the PKA's timeline for the management plan will be in TNC's Fiscal Year 2002.
12. Develop a followup strategy with communities on SCP results. Socialize the results to community and other stakeholders after the actual consultations.

**OTHER BUDGETARY NEEDS**

1. Training Meeting costs (food, drinks, venue).
2. Transportation costs for community visits.
3. Printing of materials (photocopies, photographic documentation)
4. Travel costs of KFO and/or Bali staff and SCP facilitator in May.

**TRAINING PARTICIPANTS**

1. S. Asis – National Park Volunteer
2. Harsono –TNC-KFO
3. Fisabili Haq – TNC-KFO
4. John Jalesy - National Park Volunteer
5. Errys Maart – National Park Staff
6. Sitti Maryam – National Park Volunteer
7. Andreas Muljadi – National Park Staff
8. Hendrikus Rani Siga – National Park Staff
9. Heru Rudiharto – National Park Staff
10. Andi Rusdin – National Park Volunteer
11. Paramita B. Utami – TNC-KFO
12. Zulkifli – TNC-KFO

**Appendix III: Minutes of Community Consultation**

**Komodo National Park Stakeholder (Fishers)**
**February 1, 2001**

**Venue: Komodo Field Office**

---

**Target**: Fish
**Stresses:** Fishing catch is reduced
**Source:**
- Many outsider fishers in KNP area (e.g. from Sulawesi, West Nusatenggara)
- The use of bomb and cyanide for fishing
- Lack of fisheries rules & laws socialization.

**Strategies:**
- Fishers' boat inventorying/signs on the boats
- Stronger law enforcement toward the violators
- Avoiding to buy fish catched by bomb/ cyanide
- Intensifying the socialization of KNP rules
- Intensifying dialogues with the community
- Cooperation between KNP staff and fishers
- Developing fishers groups

---

**Note:**

The consultation was held by using the simplified method resulted from the discussion with the participants of SCP Training, i.e. using the three main questions:

1. What is important to you in Komodo National Park?
2. What is happening to those targets in the park?
3. What do you think the solution(s) is/are to the problems with the community targets?

The answers for those questions, originally, were not in order, because the consultation was the first experience for the facilitators. Therefore, after the consultation was finished, the team has to re-order the answers.

Participants (fishers):

| Name | Address |
|---|---|
| Nurdin Tala | Kampung Air, L. Bajo |
| Abd. Gaffar F. | Kampung Air, L. Bajo |
| Muchtar | Kampung Ujung, L. Bajo |
| Dahring | Kampung Ujung, L. Bajo |
| Hasanudin H. | Kampung Tengah, L. |
| Yusuf | Bajo |
| Ibrahim P. Tando | Kampung Air, L. Bajo |
| Rustam Kapunting | Kampung Ujung, L. Bajo |
| Hakping | Reo |
| Salibe | Reo |
| Samsudin | Reo |
| Sanudi | Kampung Ujung, L. Bajo |
| Parage Dg. Cau | Kampung Ujung, L. Bajo |