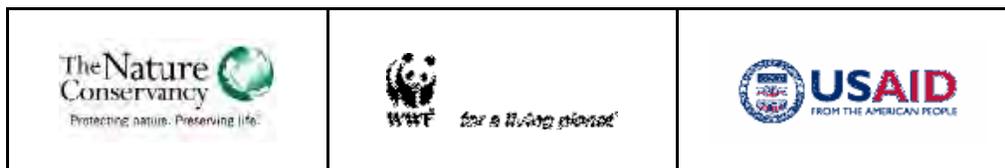


**Establishment of Effectively Managed MPA Platform Sites as Foundations for Resilient Networks of Functionally-Connected Marine Protected Areas**

**Wakatobi Marine National Park, Southeast Sulawesi, Indonesia**

**Annual project report (October 2003 - September 2004)**

*The Wakatobi project is jointly implemented by TNC Indonesia Coral Triangle Center & WWF Indonesia Marine Program*



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**Support for the Establishment of Effectively Managed MPA Platform Sites as  
Foundations for Resilient Networks of Functionally-Connected Marine Protected  
Areas**

**Wakatobi National Park, Southeast Sulawesi, Indonesia**

**Project Background**

The Tukang Besi islands (also known as Wakatobi, an acronym for the four main islands of Wangi-Wangi, Kaledupa, Tomia, and Binongko) are an archipelago at the southern tip of the Indonesian island of Sulawesi. In 1996, the government of Indonesia declared 1.39 million hectares in the islands and waters around them as a protected area, Wakatobi Marine National Park (WMNP). In terms of diversity of marine life, scale, and reef condition, WMNP ranks as one of the highest priorities for marine conservation in Indonesia. It is also a logical centerpiece for a network of mutually-replenishing MPAs along the southeastern coast of Sulawesi. The main threats to WMNP are over-fishing and over-exploitation of coral reef resources, including destructive reef fishing practices like the use of dynamite, cyanide, and gillnets. Outside fishers pose a major threat, both directly by adding to fishing pressure and resource destruction, and indirectly by reducing the sense of ownership and responsibility among local communities.

Since late 2002, The Nature Conservancy and WWF have been collaborating closely to assist the Wakatobi Marine National Park Authority to improve their management plan, zoning, and implementation of park management. This partnership is carrying out this marine conservation program in close cooperation with the national Directorate General of Forest Protection and Nature Conservation (PHKA), the Department of Marine Affairs and Fisheries (DKP), South East Sulawesi Provincial government, district government, local communities, NGOs, and the private sector. TNC and WWF will help WMNP implement effective management strategies informed by the best science and local socio-economic realities. This will include the development of a collaborative management structure, short and long term financing plans, alternative livelihoods, and management modules such as outreach and awareness, monitoring, patrolling and park zoning.

The Nature Conservancy and WWF have established three program goals that we intend our work in Wakatobi Marine National Park will accomplish by 2008:

- WMNP has in place a long-term management plan and co-management structure developed with full involvement of key stakeholders and endorsed by national and regional governments.
- Management of WMNP is successful – as measured by regular monitoring of key indicators – in stabilizing or increasing hard coral coverage, coral and fish species diversity, and the number of fish at spawning aggregation sites.
- Data collected and analyzed at several additional sites in southeast Sulawesi on connectivity and resilience in this region provide the basis for designing a large-scale, resilient MPA network with WMNP as a platform site.

## Overall Assessment of Progress and Management Issues

The key priorities in FY04 were to initiate a process for revision of the WMNP management plan and zoning system, and to further assess the status of the Park's resources and resource use for input in the revised management plan. A large number of community stakeholders have been engaged in discussions to raise awareness on the purpose of good MPA management and to hear from them what are their critical issues. This will provide a solid foundation to establish collaborative management rights and responsibilities.

At the same time, priority attention was given to reducing destructive fishing practices in the Park. A large section of the Park is now regularly included in patrolling activities by competent authorities, which has led to significant more "talk" among communities about serious implementation of the law against destructive illegal fishing practices. From experience at other project sites, we have learned that this can have a large ripple effect, reducing the occurrence of illegal destructive practices in the area further.

Progress made during FY04 laid the foundation for even closer collaboration with Park authorities. A key decision made early in the year was the appointment of the Wakatobi Project Leader in January 2004. This appointment occurred earlier than originally planned in order to enhance the cohesiveness of the field team and strengthen relationships with the Park. This catalyzed the signature of a local agreement in March 2004 among the Park Authority, TNC, and WWF which helped resolve various procedural, administrative, and other bureaucratic issues that were impeding the progress of the program, and allowed the execution of key field programs to commence. The ongoing fieldwork has boosted the morale of the park rangers and technicians, as it allows them to feel more ownership of the program.

The arrival of the Project Leader was also timely with the recent devolution of Wakatobi district from its predecessor district of Buton in February 2004. An important meeting among the TNC-WWF coordination team, the head (*Bupati*) of Wakatobi District, Head of WMNP, DKP, and PHKA was held to discuss the challenges, opportunities, and program strategy on how to incorporate the WMNP management plan into the district's development plan. Both the *Bupati* of Wakatobi and the Director General of PHKA highlighted the importance of reviewing the park management and zoning plan so that they can be integrated into Wakatobi District Spatial Plan. They also acknowledged the potential role of TNC-WWF in facilitating the revision of the WMNP management plan in light of the development of Wakatobi District.

**Objective 1: Increase MPA management effectiveness through targeted outreach and constituency building.**

**Activity 1.1:** *Design of communication strategy*

**Results Anticipated in FY04:**

- *Communications strategy and messages designed*

A five-day communications planning workshop was conducted in October 2003 in Bali, facilitated by two members of WWF Netherlands communications team. Approximately thirty participants from WMNP, WWF Indonesia and TNC took part, and jointly developed a comprehensive communications plan. The planning process included a discussion of the project goals as a basis for developing communications goals; identifying key target audiences and their perceived current views on conservation; and identifying key messages, strategies, calls to action, and the best tools to convey these messages.

The communications plan focuses on three modules: 1) management and planning; 2) surveillance; and 3) sustainable use of resources. Results from monitoring will be used to highlight progress toward the conservation goals and activities. There is a strong relationship among the modules. The management planning is the umbrella for the other modules, as the surveillance and sustainable resource use are dependent upon the management plan for their legal framework and implementation. Switching from unsustainable illegal methods to sustainable methods by communities will be more likely if a good surveillance scheme is in place. Monitoring of progress toward project targets is present in every module, and the project's monitoring module will provide data on resource status and use data that will be used for adaptive management. The communications plan is available in both English and Bahasa Indonesia, and outreach materials such as InfoWakatobi newsletter were printed in August. The communications plan will be regularly reviewed and adjusted to the dynamics of on-site situations and realities.

**Activity 1.2:** *Implementation of communication strategy*

**Results Anticipated in FY04:**

- *Initial awareness activities conducted in at least three communities within WMNP*
- *Messages and materials reviewed based on initial awareness activities*

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Several targets and specific messages from the communication strategy have been identified and delivered by the communication and awareness team at Wakatobi. The main focus of the team has been to improve the quality and frequency of communications between WMNP and the communities living within the Park. This process is important to build support for the future process of designing a management plan and rezoning the Park.

Beginning in March 2004, WMNP rangers and technicians, supported by local people who served as liaisons with local communities, visited individual homes and conducted small group discussions. The outreach team grouped the 46 villages within WMNP into 25 clusters. Awareness and outreach activities were conducted in these villages between March and September. The main goal of the village visits was to gather information on the perceptions of the communities regarding the existence of WMNP, the role of surveillance and patrolling, resource use patterns, the condition of their natural resources and the main threats to these resources, and to describe the role that TNC-WWF are playing to help enhance the effectiveness of park management.

At the same time, communications with fishers fishing in the Park's waters have been improved. In September 2003, as part of their Refresher Training, park rangers were trained by TNC and WWF field officers and assisted to improve their techniques on interviewing the fishers and to change to a more interactive approach to patrolling. A key shift that has facilitated the implementation of this approach is to view rangers' activities as data gathering on marine resource use and patterns, and the origins of the fishers working within the Park's waters.

In addition, several awareness events have been conducted by WMNP authorities in collaboration with community groups. In October 2003, WMNP, TNC and WWF provided awareness materials such as diving gear and marine life movies to the local university (Faculty of Fisheries, University of Dayanu Ikhsanudin) for display in their Fisheries Exhibition event. In February, a National Park Program exhibition was conducted in Tomia Island together with Foasato – a forum of Tongano communities. Activities included an open dialogue forum between Park authorities and communities, a drawing competition and games for high school students, and entertainment (movie showing of "Finding Nemo").

Based on the information gathered about perceptions regarding Park management, outreach materials in the form of posters were created as a medium to communicate the rich marine biodiversity of WNMP and the importance of safeguarding it, and the need for communities to be involved in the management of the Park. The poster drafts were shared with targeted members of the Wakatobi community to get their input. The posters will be finalized based on these inputs and ready for distribution in FY05. Also, a communication guide book for park rangers will be produced in FY05 to improve the skills of rangers to communicate effectively with local communities. In addition, an "Info Wakatobi" bi-monthly newsletter was launched in August 2004, which highlights the various activities and information on the park, as well as articles on park management issues from the communities, academia, and district government. Lastly, highlights from the Wakatobi project are included in WWF's quarterly marine e-bulletin and TNC's monthly program update.

A local communications training course was conducted in Bau Bau in September 2004, aimed at enhancing the skills of the field team in communicating the defined messages, effective approaches and tools, writing simple outreach materials, and learning of

experiences in environmental communications in other conservation areas. Outside specialists were involved in the training as facilitator and resource person:

- A former environmental journalist from the most influential paper in Indonesia, Kompas, is now a free-lance seasoned facilitator in the field of environmental communications, and gave training on the basics of environmental communications, and techniques in the creation and writing of outreach materials.
- A resource person from Lestari Foundation shared lessons learned in conducting awareness campaigns in other conservation sites. Lestari Foundation is an Indonesian NGO established following the USAID-NRM program in North Sulawesi for the purpose of natural resource management and governance communications. The Foundation has established the M3 media machine campaign approach which includes a combination of journalists, round tables meetings, and radio and TV programs to distribute messages on natural resource management.

To support the project's outreach and communication team in Wakatobi, a socio-economic monitoring officer has been hired. There is still one more vacancy for an outreach officer which is now in the recruitment process. Currently there are two candidates identified and one is expected to be hired by the end of October 2004.

**Activity 1.3:** *Sustainable livelihoods*

**Results Anticipated in FY04:**

- *Improved understanding of current livelihood activities.*
- *Identification of changes in current practices and/or promising additional economic activities that are compatible with long-term conservation and that could reduce threats from over-fishing and destructive fishing practices.*

The team assessing patterns of resource utilization in Wakatobi (see also Activity 2.2. below) is mapping the occurrence of marine related livelihood activities throughout the area. The survey report of the resource use as of early September 2004 has been completed.

An assessment of the dependence on, and perceptions of, the Bajau community on marine and coastal resources in WMNP was conducted by our local NGO partner, Yayasan Bajo Matilla. It resulted in the prioritization of activities with this particular ethnic group. Following this, some of the livelihood project activities by Yayasan Bajo Matilla are being profiled for more support. The project facilitated a grant to Yayasan Bajo Matilla to develop pelagic fisheries opportunities for Bajau communities. This would shift fishing pressure away from the reefs, while still providing livelihood options for these coastal communities. WWF and TNC will continue to follow the results of this project with a view to facilitating the expansion of this approach in other parts of WMNP and with other communities. Discussions and site visits to the ecotourism project of Operation Wallacea have also been conducted to evaluate the need and opportunities to strengthen this further.

Contrary to our understanding at the time of the GCP II proposal for Wakatobi, it appears that there is indeed an active aquarium fishery in and near WMNP. A small project is being conducted by Ecosafe, an environmental consultant, with funding from CEPI, a Canadian agency, to assess the feasibility of transforming this fishery through certification by the Marine Aquarium Council (MAC). Following completion of this study, discussions will be held with MAC representatives in Indonesia to decide on further engagement. During the Ecosafe project, initial training on proper capture and handling of aquarium fish was conducted.

Starting in FY05, the joint TNC-WWF project will administer a fund for small contracts to local communities<sup>1</sup>. These contracts, typically ranging between \$100 and \$1,000 each, will be made available for projects identified by local communities themselves and designed to be implemented by communities without further technical support from the project. TNC and WWF completed the design of a set of criteria that will select for projects that intend to serve a public good (or at least serve the good of a group of individuals) that is fully compatible with conservation and sustainable use of the natural resources of the area (A copy of the Terms of Reference is available upon request.)

***Objective 2: Develop strategies for conservation and management planning that are based on science and reflect widespread support from key stakeholders.***

***Activity 2.1: Incorporating stakeholder input into revision of WMNP management plan through participatory site conservation planning***

**Results Anticipated in FY04:**

- *A group of local forums or collaborative bodies that includes representation from all islands and/or other relevant stakeholders formed to provide input into management planning.*
- *Signed agreement between Park Authorities and multi-stakeholder constituency on the objectives and design criteria for Wakatobi Marine National Park*

At the national level, several meetings were held with the Director General of Forest Protection and Nature Conservation (PHKA) and the Director of Marine Conservation of the Ministry of Marine Affairs and Fisheries, as well as with the Indonesian Agencies for Science (LIPI), Operation Wallacea, Wallacea Development Institute, the Natural Resource Management (NRM) project, the COREMAP project, and the World Bank. As a result, these organizations have committed to support the implementation of collaborative management at WMNP.

At the district level, since the declaration of Wakatobi as a new District, the Wakatobi Project Leader and the head of WMNP have been communicating with the new *Bupati* to build constructive perceptions on the management of islands and waters in the areas of the District. Before the new district was declared, some initiatives had been conducted to encourage multi-stakeholder partnership and support for the management of WMNP. An

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<sup>1</sup> WWF is currently drafting a proposal for US\$10-15,000 to seed this small grants program.

informal communication forum among WMNP, local NGOs, and government agencies called *Forum NGO Peduli Taman Nasional Kepulauan Wakatobi* has been initiated, which will be strengthened and formalized in the coming year. With the newly established district, the forum recommended strengthening communications and focusing on the grass-roots level until the new district's government structures are formed in the coming year.

During the past year, the community outreach and awareness team has visited 46 out of the 64 villages located in Wakatobi District. From their discussions with villagers, they concluded that the majority of the respondents do not yet have a comprehensive understanding of a national park. Furthermore, the outreach and awareness team also conducted a preliminary survey on villagers' perceptions with regards to the status of WMNP resources, threats to these marine resources, and willingness to support enforcement to protect marine resources (see Activity 2.2). Input from these village meetings will be used as references for the planned WMNP management and zoning revision.

The outreach and awareness team has also been working closely with the existing local forums. They include FORKANI in Kaledupa Island and FOASATO and *Forum Tomia Pohenangka* in Tomia Island. With their local knowledge and expertise, these local forums have aided the outreach and awareness team in implementation of the perception monitoring survey and stakeholder meetings.

Following the outreach activities and perception surveys in Wakatobi District, two island-level workshops have been conducted in Tomia (August 2004) and Binongko (September 2004). Workshops in Wangi-Wangi and Kaledupa islands will follow in the first half of October 2004. These workshops are part of the process in obtaining community inputs, which will be forwarded by their representatives (or focal point) to the (proposed) Wakatobi stakeholder forum.

The establishment of a Wakatobi stakeholder forum has been delayed as the process of conducting village visits and meetings could not follow the planned schedule due to: (1) difficulty in finding a suitable social and economic officer and outreach and communication officer (the former is still being recruited, while the latter just joined the project team in July 2004) to assist in village visits and meetings; and (2) challenging logistics to cover the large number of villages (64) spread over four islands in the Wakatobi district that had to be visited.

It is expected that the Wakatobi stakeholder forum will be created by the end of December 2004, in which all key stakeholders can sign the agreement on WMNP objectives and criteria.

**Activity 2.2:** *Data collection and analysis for revised zoning and management plan*

**Results Anticipated in FY04:**

- *Draft report on conservation targets, resource use status, resource use patterns, and ecological and socio-economic management needs completed.*

- *Feedback obtained from local communities on draft assessment results.*

The joint WWF-TNC Wakatobi Project Team is conducting a baseline survey that assesses resource status, resource use, and resource dependency and perceptions of local communities to inform management of WMNP. In-situ observations on the spatial distribution of habitats and species groups have been conducted. Further, visual observations of vessels and their activities were conducted, and informal interviews of local people who happened to be in the survey area is done.

To date, the resource status surveys have focused on identifying possible spawning sites of economically targeted species, such as groupers (*Plectropomus spp* and *Epinehelus spp*) and Napoleon wrasse (*Cheilinus undulatus*), which are commonly targeted for live-reef-fish-food trade. Although only two confirmed spawning sites were identified so far, there are strong indications that more exist inside the Park.

Resource use surveys were conducted by interviewing fishers and other resource users in the area and by doing direct observations on catches and application of gears at sea. These observations were supplemented by records on tourism use from the WMNP Authority and by informal interviews with local people and dive operators. So far, 11 trips, comprising a total of 54 survey days were conducted as of September 5<sup>th</sup>, in ten reef areas: Kaledupa atoll, Kapota atoll, Kaledupa island (fringing reefs), Tomia island (fringing reefs), and Koko atoll, Kentiole island (fringing reefs), Koramaho atoll, Wangi – Wangi island (fringing reefs), Cowo – cowo, and Binongko island. The majority (40 %) of the 232 fishing vessels encountered came from the Bajau villages of Mola, Montigola, and Lamanggau. Of all fishing vessels encountered, significant proportion (40%) were from outside Wakatobi. Demersal fishing was commonly practiced. Tourism activities are concentrated around two resort islands (i.e. Hoga and Onemubaa-Tolondano). Records from the WMNP Authority show that only two live-aboard dive vessels entered the Park in 2003 – probably because many live-aboards did not register with the Park authority. The Park authority issued 696 permits for tourism and /or research.

Surveys for resource dependency (socio-economics) and perceptions on resource status and natural resources management included interviews with local communities and other resource users. So far, 236 interviews were conducted among villagers in Tomia and Kaledupa islands. Although 95% of the respondents claimed to sell their catch, it was believed that their fishing was mostly of subsistence nature. Eighty-four percent of the respondents stated that the quality of the marine resources have declined (as compared to 10 years ago), and 67% of the respondents thought that destructive fishing practices were the main cause of this decline. More than two-thirds of the respondents would welcome more regular patrols in the park to abate destructive fishing practices. Other noteworthy observations are the presence of seaweed culture in Kaledupa, and the presence of near-shore fish aggregating devices (FADs) for targeting small pelagics around Tomia, Wanci, and Kaledupa.

Park staff and some other stakeholders (e.g. local school teacher, Buton fishery service official, and Kendari university student) have been partially involved in some of the

surveys. Although it is preferred to work with the same individuals all the time, it was decided that every Park staff member should be exposed to the field work, at least once in the initial stage, in order to give equal chance and experience for everyone. Candidates for the monitoring team have been shortlisted. As most of the monitoring work in FY 05 will be on resource use, thus most of the park rangers will be able to participate.

A report containing results of the survey through early September has been completed. Results were shared during local stakeholder workshops in Tomia, and Binongko in August and September 2004. A copy of the preliminary report (excluding the survey data from September and October) is available upon request and is posted on the SEACMPA website: [www.tnc-seacmpa.org](http://www.tnc-seacmpa.org). In addition, the results of the Rapid Ecological Assessment, conducted by an international team of experts in May 2003, have been made available via the WWF and TNC websites, and await official endorsement from national PHKA authorities. Indonesian translations of the executive summary, including the main results of the REA, are also available. Upon receiving official endorsement, the REA report will also be shared in translated version with a wider audience of local stakeholders.

Future surveys on coarse filter targets (e.g., major habitats such as coral reefs, seagrass beds, and mangroves) and fine filter targets (e.g., species of interest such as groupers, Napoleon wrasse, cetaceans and turtles) will be conducted in FY 06. It has been decided that in FY05 the Operations Manager will supervise and provide limited support if required for the resource monitoring work that will be undertaken by the Monitoring Officer.

***Activity 2.3: Preparation and Planning for Marine Eco-regional Conservation***

**Results Anticipated in FY04:**

- *Data collected and plans completed for Southeast Sulawesi ECA (which will be carried out in FY 2005)*

A technical report on delineation of the Coral Triangle, its marine ecoregions and functional seascapes was recently updated. Experts were unsure whether the Southeast Sulawesi area in the Banda Sea should be classified as a separate Coral Triangle ecoregion. Because not enough data were available to sub-divide the large Banda Seas ecoregion into smaller ecoregions, a choice was made to classify Southeast Sulawesi as a functional seascape. Besides the Wakatobi islands, this functional seascape also includes Taka Bone Rate and the reefs on the Southeast Sulawesi mainland. The updated report is available on request, or via the SEACMPA website.

In conjunction with the technical report, a plan was compiled for conducting an Ecoregional Conservation Assessment (ECA) in four priority Coral Triangle ecoregions, including the Southeast Sulawesi functional seascape and the Wakatobi area. The objective of this assessment is to establish a network of sites within these functional seascapes that, if protected effectively, would secure the long-term survival of the functional seascape's coral reefs and closely associated marine ecosystems. Major marine habitats ("coarse filter targets") and occurrences of vulnerable sites and species ("fine

filter targets”) will be mapped, and after a viability analysis and an analysis of connectivity (“source” and “sink” reefs), the networks will be identified. The funds needed for this assessment still need to be raised from other sources (i.e., GCP funding will not be used for the ECA).

**Objective 3:** *Strengthen individual and institutional skills and abilities needed for effective MPA co-management.*

**Activity 3.1:** *Identification of lead persons and development of teams for management modules*

**Results Anticipated in FY04:**

- *Management module teams established, for which capacity building activities will be tailored*

A Project Leader (Wawan Ridwan) was employed in January 2004. This has significantly improved the communication among WWF, TNC, the head of the Park, and local government.

Following extensive planning meetings in late 2003 and early 2004 on strategy design and prioritization of activities for the next three years, a new organizational structure was prepared by the joint TNC-WWF team. Beginning in FY05, project activities will be organized around five management modules. This structure allows for improved links between deliverables, tasks and responsibilities. It also allows for more effective reporting and evaluation of progress.

In July 2004, WMNP, TNC, and WWF signed an operational agreement, and the head of WMNP issued a decree, which led to the formation of three program management working groups. The role of the working groups is to ensure that all operational and program activities carried out on the ground are aligned with the joint work plan. The working groups are: design and planning, surveillance and monitoring, and community outreach and awareness. Each working group comprises five members and is led by a staff member and/or ranger from WMNP who has received training (e.g. surveillance, communication, and/or MPA management) relevant to their task. A TNC-WWF team member is represented on each working group. The joint work plan for FY 05 will be signed by the Director General for Forest Protection and Nature Conservation (PHKA), the head of WMNP, and the TNC-WWF project leader in October 2004.

**Activity 3.2:** *MPA management training for park staff and co-management partners*

**Results Anticipated in FY04:**

- *At least 65 people trained*

The following training was provided by the project during the year. Since the major spawning season in Wakatobi occurs from October through March, training on spawning aggregations was deferred to next fiscal year.

*(a) MPA and fishery management*

Two series of five-day MPA Planning and Management training courses were conducted at Hoga Island, Wakatobi, in January 2004. A total of 44 park managers, co-managing users, and co-managing NGOs participated. The courses were conducted through lectures, group work and discussion, short group presentations, and field practice (fishery simulation). The topics were divided into: (1) an introduction on MPAs (the basics of marine ecology and marine conservation, and site selection – transforming coral reef conservation concepts); (2) technical information (population dynamics, fishery management tools and model of estimate, carrying capacity, and GIS); and (3) practical implications (fishery benefits of MPAs, a case study of marine conservation programs, stakeholder involvement in park management, and design of monitoring program).

In addition, the head of WMNP and his staff, and an official from the Wakatobi district fishery office also attended the MPA planning and management for managers at SEACMPA Bali in July 2004.

*(b) Patrolling procedures and human rights*

TNC and WWF assisted WMNP in their annual ranger retraining program in September 2003 and June 2004. In total, 40 rangers (20 each time) have participated in the retraining sessions in the past year. In the 2003 retraining session, assistance was given to WMNP by facilitating a guest trainer (a surveillance advisor from Culthip Inc.) to provide lectures on best practices in surveillance procedures with strong emphasis on human rights issues (see Activity 7.1). In 2004, TNC-WWF assisted the training by providing awareness on marine conservation and education.

In addition, during the July 2004 seminar on MPA planning and management for managers, half a day was allocated to a presentation and discussion of surveillance and human right issues. The park managers and senior staffs were exposed to various issues on international and national standard practices related to park patrolling and enforcement activities, especially those related to human right issues.

*(c) Communications*

The communications training was conducted in Bau Bau in September 2004. It was aimed at enhancing the skills of the field team in communicating the defined messages, effective approaches and tools, writing simple outreach materials, and learning of experiences in environmental communications in other conservation areas. A total of 28 participants took part, representing the Park's outreach and awareness, design and planning, and surveillance and resource utilization working groups, as well as Park rangers, district government, communities, the "Info Wakatobi" newsletter team, WWF-TNC staff, and the media.

**Activity 3.3:** *Exchanges with other Marine Protected Areas*

**Results Anticipated in FY04:**

- *WMNP officials and partners aware of experience and lessons learned in Bunaken for involving stakeholders in revising MPA management plans.*

Visits of WMNP officials, partner organizations, and representatives of stakeholder groups in the Wakatobi area to Komodo National Park and Bunaken National Park were conducted. This activity is one of the capacity building programs to strengthen the skills and abilities as well as to build the consensus and commitment from them needed for effective WMNP co-management. The ultimate objective is to create a collaborative management mechanism for Wakatobi Marine National Park involving the representation of all partner organizations and key stakeholders.

The visit was conducted on 29 July to 2 August 2003 to Komodo National Park. The participants were:

- Syihabudin: Head of Wakatobi Marine National Park
- Ilyas Abibu: Assistant II to Secretary of Buton District
- Nasir A. Baso: Head of Tourism Service of Buton District
- Ibrahim Udu: Head of Fishery Service of Buton District
- Abidin A. Baso: Head of Forestry Service of Buton District
- Waode Nurjana: Staff of Buton Regional Development Agency (Bapeda)

The visit to Komodo enabled the WMNP and Buton District officials to learn that the success of the on-the-ground conservation requires sound planning, dedicated implementation of relevant management modules, innovative approaches to finance long term conservation needs, and support from key stakeholders, especially local governments and communities. Challenges in MPA management in Komodo were also shared. Presentations and posters on the management modules implemented on-the-ground, including coral reef monitoring and rehabilitation, alternative livelihood development projects (mariculture and Fish Aggregation Devices), and patrolling, were delivered to the visitors. The participants also visited a floating ranger station. Finally, informal gatherings were also arranged with local authorities from Manggarai District, and local police and army officers.

The second visit was conducted on 18 August – 29 August 2003 to Bunaken Marine National Park coordinated by the USAID/Indonesia financed Natural Resource Management program. There were 21 participants from Wakatobi Marine National Park, Teluk Cenderawasih National Park, BKSDA Sorong, Bunaken National Park, Kerinci Seblat National Park, BKSDA South Sulawesi, Takabonerate National Park, Department of Marine Affairs and Fisheries, and Directorate General of Forest Protection and Nature Conservation.

The objective of this visit was to learn from Bunaken National Park management about their experience with stakeholder participation, and how to incorporate stakeholder inputs into a park's management planning and design. The collaborative management

implemented in Bunaken National Park became one of the most interesting topics to the participants. From this visit, partners and stakeholders from WMNP learned directly how a national park management authority and its partner organizations committed themselves to fully and actively participate in planning, implementing, evaluating and monitoring park management and results. Also, through its collaborative management approach, Bunaken developed a self-financing mechanism based on visitor entrance fees.

With the recent formation of Wakatobi District apart from Buton District in early 2004, it is highly recommended that similar visits to Komodo and Bunaken be conducted again in the near future for Wakatobi District government.

***Objective 4: Provide, through regular monitoring programs, timely and accurate data and feedback to improve MPA management.***

**Activity 4.1:** *Design of biological monitoring program*

**Results Anticipated in FY04:**

- *Monitoring officer hired, trained, and posted in the field*
- *First iteration of biological monitoring program designed.*

In August 2003, the former Monitoring Officer in Komodo was reassigned to Wakatobi to work in this capacity on the TNC-WWF project team. His main role in FY04 was to implement a baseline assessment on the status of marine resources and to gather data on resource use patterns within the Park. This was achieved through underwater surveys and direct interviews with fishers within the Wakatobi area. Joining the outreach team, the Monitoring Officer also played a role by explaining the basics of marine ecology and principles of biological monitoring to Wakatobi Park staff and other stakeholders, such university students and lecturers, fisheries officials, local NGOs, and school teachers. The project team has decided that the monitoring officer will be supervised directly by the Operations Manager, who will provide limited support for field work if required, but will assist in the report writing.

The first iteration of the biological monitoring program to be conducted at WMNP was designed during this year. The objectives of the biological monitoring program are: (a) to inform adaptive management and to inform revision of zoning plans, and (b) to provide a measure for the success of conservation management. The monitoring program will cover species, habitats, and both extractive (e.g., fishery and coral mining) and non-extractive (e.g., mariculture and tourism) uses. Emphasis is on comprehensiveness and spatial coverage rather than on detail.

The following species or species groups (fine filter targets) will be included in the monitoring program: groupers and Napoleon wrasse (monitoring of spawning aggregation sites), Cetaceans and manta rays. The latter two will be covered through occasional observations at sea, i.e., no dedicated trips are planned for monitoring of Cetaceans and manta rays but observations will be collected during sea travel during the program. Monitoring of spawning aggregation sites will be based on the protocol used in

Komodo. A manual on this protocol has been developed and will be available from [www.tnc-seacmpa.org](http://www.tnc-seacmpa.org) shortly. The possibility of including sea turtles in the monitoring program is still being discussed.

The habitats (coarse filter targets) that will be covered are coral reefs and mangroves. Mangroves will be assessed through historical and recent satellite imagery (biannually). The monitoring protocol for coral reefs will be based on the protocol developed for Komodo, with the addition of a protocol to calibrate observers. Furthermore, the protocol will include assessment of bleaching and presence of Crown-Of-Thorns Starfish.

Monitoring of resource use will be in essence a continuation of the baseline survey on resource use (cf. Activity 2.2), but with more emphasis on recording details on fishing activity and catches in the field. Use by tourists (especially live-aboards) will also be monitored.

Field staff involved in monitoring visited SEACMPA in Bali to work together with SEACMPA's Science Manager on monitoring protocols and on the report of the baseline survey.

An Operations Manager has been hired, who will also function as a Monitoring and Surveillance Coordinator. The expatriate expert who has been recruited worked for Operation Wallacea before joining TNC, which will greatly facilitate coordination with this important partner.

**Activity 4.2:** *Design of socioeconomic monitoring program*

**Results Anticipated in FY04:**

- *Community outreach/monitoring officer hired, trained, and posted in the field.*
- *First iteration of socioeconomic monitoring program, including methods for monitoring community perceptions and attitudes, designed.*

A social and economic monitoring officer was hired in July 2004, and the outreach and communication officer is in the process of recruitment. The outreach/communications officer's major responsibility is to implement the various community outreach and awareness programs across the 46 out of 64 villages in Wakatobi district. He/she will establish an extensive dialogue with the villagers to facilitate their participation in park management, building on activities initiated by the conservation awareness officer earlier this year. Prior to his/her job placement, he/she will be trained by WWF and TNC officers who are currently implementing the preliminary outreach programs.

The social and economic monitoring officer will be part of the team that will record community perceptions as a basis for improving the effectiveness of adaptive park management and outreach and awareness programs. In conjunction with the implementation of this program, he will be trained by experts from Johns Hopkins University supported by SEACMPA Bali. The objectives of the socioeconomic monitoring program are (a) to measure community needs and attitudes about marine

conservation and sustainable resource use, and (b) to improve outreach programs and adaptive management by reflecting stakeholder needs into management plan. A standard socioeconomic monitoring protocol will be developed to ensure the consistent implementation of the program. This protocol includes: design of questionnaires, data collection, data analysis, and lessons learned and results extension. The questionnaires will be designed to collect information relevant to indicators included in the guidebooks *Socioeconomic Monitoring Guidelines for Coastal Managers in Southeast Asia: SocMon SEA* developed by WCPA, NOAA, SEAFDEC, Worldfish Center and GCRMN. Specific target groups will be carefully selected and ranked following the method developed by Mikalsen and Jentoft (2003). Interviewees will be selected randomly from subsets of sample, following the result of stakeholder selection. Test interviews will be conducted and changes made as necessary before full scale application. Copies of the specific protocols to be followed are available upon request.

Various partners will be involved in the design and implementation of this monitoring program with support from experts. A cooperative agreement between TNC and Johns Hopkins University Center for Communication Program (JHU CCP) Indonesia on scientific and technical cooperation on socioeconomic monitoring and communication programs has been completed and reviewed by TNC legal team, and is now awaiting decision by JHU CCP legal team. A research advisor from JHU CCP has been assigned to strengthen the TNC and WWF capacity to lead the design and implementation of this program. This regular monitoring program will be conducted by a team composed of TNC and WWF staff, consultants, partners, and selected stakeholders every other year starting in September 2004. Additional funding has been secured from NOAA's coral conservation grants program to support implementation of this monitoring program.

***Objective 5: Help create a policy and legal environment that supports effective MPA management.***

***Activity 5.1: Identification of policy needs and formulation of proposed policy***

**Results Anticipated in FY04:**

- *Prioritized agenda of policy/legal issues developed*

Key policy issues that were identified and agreed upon by the WMNP authority, the Wakatobi District government and TNC/WWF include:

- Wakatobi's status as an independent District that is completely situated within Park boundaries
- Alignment between the District spatial development plan and the Park zoning plan
- Harmonization between Park regulations and District regulations on entrance fees to the Park and on fishery management
- Embedding community-based management approaches implemented through the World Bank/ADB COREMAP project
- Collaborative management of Wakatobi Marine National Park

Several meetings were held during the year with the WMNP Authority, the Buton and newly established Wakatobi districts, PHKA, DKP, and others to form a basis for collaboration with the project and identify possible policy-related needs. The focus of these discussions was on the revision of the zoning system for the Park, integrating Park and district/regional spatial planning, and protecting fisheries resources, especially by abating destructive fishing. The formation of the new Wakatobi District at the beginning of 2004 has complicated identification of key policy issues and contacts, as the new set of government structures and officials for the new district are not expected to be in place until mid-2005.

At a meeting with PHKA in August 2004, there was acknowledgement that the recent establishment of Wakatobi District will require adjustments in WMNP's management plan. In essence, the policy issue at hand is that the split-off of Wakatobi from its 'mother' District Buton resulted in an entire (though smaller) District being located within Park boundaries. This means that the development plans of this new, ambitious District has to consider the boundaries and zoning plan of the national park and *vice versa*. Based on directives from PHKA's Director of Conservation Areas, there will be a review by an independent panel of WMNP's management framework given this new political reality, and this panel will provide recommendations how the District spatial development plan and Park zoning plan can co-exist and, ideally, how synergy can be achieved. TNC/WWF will provide technical support and input for the independent panel with regard to WMNP objectives and criteria as an MPA. The Ministry of Forestry may issue a new decree on WMNP based on the review findings. Another important decree that is anticipated to be produced is regulation on collaborative management for WMNP.

The newly appointed head of Wakatobi District has expressed his commitment to align the District's regulation and spatial planning with the zoning plan of WMNP. The District government has also been seeking input from WMNP and PHKA to create local regulations regarding fishing gear and entrance fees into protected areas. Upon Wakatobi District's request the head of WMNP submitted guidelines on fishing gear regulations and park entrance fees to the District. These guidelines will be the basis of a District's regulation on fishing and park entrance fee that is currently being drafted.

Discussions were also held with the Ministry of Marine Affairs and Fisheries regarding the development of the second phase of the COREMAP project (Coral Reef Rehabilitation and Management Project, funded by the World Bank, ADB, and GEF). Wakatobi has been identified as an area to be included in COREMAP, and these discussions have been aimed at harmonizing the approaches and measures taken by the WMNP Authority, local government agencies, COREMAP, and the joint TNC-WWF project. COREMAP intends to work with local communities to enable them to manage nearby resources (which are not necessarily 'their own resources'), and it will require coordination to ensure that community-based management initiatives are aligned with the Park management plan.

**Activity 5.2:** *Participation in discussions on MPA policy development at national and district levels*

**Results Anticipated in FY04:**

- *National Indonesian task force to develop MPA strategy created by the Ministry of Fisheries and Marine Affairs on which TNC and WWF are represented*

The establishment of a nationwide MPA system has been identified as a priority by the Government of Indonesia, especially the Ministry of Marine Affairs and Fisheries (DKP) and the Ministry of Forestry (DEPHUT). A series of meetings and workshops held over the past two years recommended that a national strategy on marine conservation be developed. In response, a formal process and national committee on marine conservation in Indonesia was created through the DKP Ministerial Decree in March 2004. This committee consists of:

1. Steering Committee (high level officials of various governmental agencies)
2. Technical Team (representatives of technical government agencies, NGOs, and marine projects).
3. Three Working Groups on creating an MPA Network, sustainable fisheries, and species and genetics.
4. A Secretariat Team to support these groups and the process.

Prominent members of this Committee are Directorate General of Coastal and Small Islands (Ministry of Marine Affairs and Fisheries), PHKA (Ministry of Forestry), Indonesia's Institute of Science, Ministry of Environment, Ministry of Interior, National Planning Bureau, Ministry of Culture and Tourism, the USAID-financed NRM project, Conservation International, Coastal Resources Management Program/Mitra Pesisir, Marine Aquarium Council, and Kehati. TNC and WWF have played an active role in this Committee; TNC currently functions as the Secretariat. TNC SEACMPA's Portfolio Manager, Science Manager and Training Manager are members of the working groups.

All Working Groups held their first meeting in March 2004 to formulate a draft Terms of Reference (TOR) for the Committee that must then be approved by Technical Team. As it became obvious that drafting the TOR was taking more time than anticipated, TNC, supported by WWF, took the initiative to draft the TOR. This draft TOR was ready and discussed by the Technical Team in their second meeting in June 2004. During this meeting, the decision was made to create one single joint TOR for Steering Committee, Technical Team, Working Groups, and Secretariat. TNC and WWF incorporated those inputs into the draft TOR which was discussed in September 2004 in Jakarta.

The long-term tasks and working priorities for the Working Groups (up to FY07: 2006-2007) have been defined and further specified by the Technical Team. Priorities include the formulation of an overall draft strategy for marine conservation and sustainable use of living marine resources in Indonesia. This strategy could be in the form of strictly technical recommendations based on the current available science and informal data on resources status and use patterns. This technical recommendation will then be followed up by the Technical Team to prepare policy advice which will be presented in Steering

Committee meeting. Further, the Steering Committee will present it to the legislative and/or the executive bodies for processing into formal legislation.

Meanwhile, the Working Groups are exploring the possibility of listing several MPAs as a World Heritage ‘cluster site’. Those MPAs are Bunaken National Park and adjacent islands, Wakatobi Marine National Park, Raja Ampat Islands, Derawan Islands, Taka Bone Rate National Park and Banda Island.

Another crucial development to note is the enactment of the revised Fisheries Act in September 2004, in which, among other things, marine conservation, marine species conservation and marine protected areas are clearly mentioned. This will further empower the Ministry of Marine Affairs and Fisheries and local governments to enact and to implement marine conservation measures and jurisdiction.

TNC’s involvement in the Committee will be continued during Fed FY05.

**Objective 6: Develop plans to achieve long term financial sustainability for park operations.**

**Activity 6.1:** *Identify finance needs for sustained management and capacity for WMNP*

**Results Anticipated in FY04:**

- *Estimated mean annual budget for (co-) management of Wakatobi National Park.*

Wakatobi National Park was part of a broader study of cost estimates for a portfolio of MPAs in Southeast Asia conducted last year for the World Commission on Protected Areas by the Community and Conservation Investment Forum (CCIF). The mean annual budget for co-management at WMNP for the next 10 years estimated in this study is included in Table 1 below.

**Table 1. Estimate of mean annual budget for 10 years of Wakatobi National Park management expenses (US\$ in Thousands)**

Wakatobi	YEAR									
	1	2	3	4	5	6	7	8	9	10
Annual start-up \$ required	410	410	-	-	1,290	1,290	-	-	-	-
Annual operating \$ required	535	535	535	535	1,238	1,238	1,238	1,238	1,238	1,238
<b>Total annual costs</b>	<b>945</b>	<b>945</b>	<b>535</b>	<b>535</b>	<b>2,528</b>	<b>2,528</b>	<b>1,238</b>	<b>1,238</b>	<b>1,238</b>	<b>1,238</b>

For their analysis, CCIF had to apply a number of simplifying assumptions. Expense categories included: park initiation/establishment, legal/policy framework, stakeholder engagement, community development, education, protection/enforcement, park management and planning, ecological monitoring and restoration, and marketing and tourism. Furthermore, CCIF assumed that management costs would be influenced by primary and secondary characteristics. Primary characteristics were size, complexity of

threat, remoteness, and revenue potential. Secondary characteristics were mix of users/stakeholders, (inter)national awareness, existing infrastructure, socio-political framework, and partner organizations. WMNP falls in the primary characteristics category named “flagships” – very large sites, with complex threats, and high revenue potential. Of additional note, the expense figures in Table 1 include both start-up costs and annual operating costs. Start-up costs are largely represented by purchases of capital assets integral to the MPA management function (e.g. boats and floating ranger stations), as well as intensive but time-limited operating costs such as management plan drafting. Annual operating costs represent “steady-state” items that are required for ongoing management of the MPA (e.g. salaries, surveillance and enforcement, resource monitoring, etc.).

Recently, CCIF has been contracted to provide more detailed costs estimates for WMNP that go far beyond the scope of this initial work. This budgeting process will yield detailed financial projections for the total management costs of WMNP for 25 years, and will replace the projections shown in Table 1. It is necessary to update the figures in Table 1 because, while they have yielded an important conceptual understanding of costs for WMNP management, they do not sufficiently inform day-to-day management of the Park. To this point, CCIF has undertaken a data gathering trip in the field, and has begun assembling the relevant financial models to create the financial projections. The financial projections for WMNP will include a full bottom-up accounting of management costs, broken down along the lines of the following key functions: resources protection, science and training, community development, community outreach, finance and administration and tourism and marketing. The projections will also differentiate between capital expenditures and operating costs, both in the startup phase and over time. Once the full report is complete (by the end of October), the WWF-TNC team will then provide further technical input on the outputs, assumptions and the overall approach taken.

**Activity 6.2:** *Draft finance strategy for short term and long term*

**Results Anticipated in FY04:**

- *Draft financing plan for (co-)management of WMNP in three sections: 2005-2009, 2010-2014, and 2015-2030.*

As part of the ongoing budgeting process for WMNP, CCIF is working with TNC and WWF to complete a draft financing strategy for the short term and long term. This financing strategy will describe how the funding needs for the joint management of WMNP (as described in Activity 6.1 above) may be met over the next twenty-five years. The draft financing strategy will attempt to address diverse potential sources for WMNP funding over the next 25 years, but will also pay close attention to the strategic alignment with other MPAs in the region from which WMNP will benefit, particularly as related to the fluid movement of human and physical capital. Perhaps more important, however, is the present opportunity to leverage the WMNP development process by building innovative, long term financing techniques.

With respect short term financing, CCIF is exploring a host of alternatives to meet future costs, including expanded cost sharing opportunities with other NGOs, revenue development from tourism and other usage fees, grant strategies through multi-laterals such as the Global Environment Facility, as well as conservation concessions, to name a few. The draft financing strategy for the short term and long term will be completed by the end of October.

***Objective 7: Improve protection of biodiversity through timely and effective patrolling.***

**Activity 7.1:** *Development of a patrolling and enforcement plan*

**Results Anticipated in FY04:**

- *Standard operating procedures for WMNP's enforcement program developed.*
- *Opportunities for incorporating existing local community enforcement/patrolling initiatives into routine procedures assessed.*
- *Patrolling team trained in patrol procedures, human rights, rules of engagement and community relations.*

The procedures for surveillance activities within MPAs in Indonesia, including Wakatobi Marine National Park, are based on guidelines for coral reef ecosystems established by the Directorate General of PHKA through a January 2000 decree.

Based on initial experience with patrolling activities (see Activity 7.2 below), the head of the Park issued a decree in July 2004 on the formation of working groups which were to concentrate on several management modules for WMNP. One of the management modules is on surveillance and monitoring. The first task of the surveillance and monitoring working group was to adjust surveillance guidelines and best practices as outlined by PHKA specifically tailored for WMNP requirements. The guidelines it prepared were completed in September 2004 and will be presented to the director of PHKA for endorsement in October 2004. The guidelines on surveillance include objectives, surveillance procedures, and best practices.

In September 2003 and June 2004, the project assisted WMNP with their annual rangers retraining session, each of which was attended by 20 rangers. The project provided an external advisor from Culthip Inc. to discuss best practices on surveillance with strong emphasis on human rights issues and rule of conduct to maintain and/or developing good community relationships in order to enhance awareness, solicit support, and encourage participation of all concerned stakeholders. The training modules given cover the following topics:

- Expected behavior and appearance of patrol team members.
- Importance of maintaining readiness to carry out patrol duties at any time.
- Proper reporting.
- Prohibited activities.
- Conducting good control and supervision.

- Understanding and respecting of human rights values and having good judgment on how to apply these values while conducting patrols.
- Adhering to rules of engagement when interacting with marine resource users.

The WMNP/TNC/WWF team assessed three initiatives implemented by Wakatobi residents for inclusion in the Park-wide surveillance program. However, these initiatives were found to be of limited value because of their limited spatial scope and because of their unclear legal basis. Two of these initiatives were sponsored by tourism enterprises (reef lease mechanism), while the third is an initiative of a local community that claims exclusive fishing rights around the remote Runduma Island. The initiatives supported by tourism enterprises on Hoga and Tomia island established a no fishing or no take area without clear legal support. It was found that many local fishers (i.e. those fishers who do not directly benefit from the reef lease mechanism) resented or ignored such unilateral measures. Runduma Island is situated in a designated no-take and no-entry area (i.e. core zone), which makes it difficult for the Park authority to support the community's claim. It is clear that these local initiatives have created confusion among the Wakatobi residents with respect to WMNP authority and jurisdiction over its marine waters and resources.

TNC/WWF advised WMNP that until roles of communities in management were more clearly defined, it would be better not to have direct involvement of community members in an organized patrol program. WMNP and TNC/WWF agreed that, for the time being, the best community participation would be in the form of secondary information or reporting. In addition, observers from local communities have joined patrols upon invitation by TNC/WWF/WMNP.

**Activity 7.2:** *Begin implementation of patrolling and enforcement plan*

**Results Anticipated in FY04:**

- *Patrol team deployed and adequately equipped*
- *Significant reduction in destructive fishing practices and unregulated fishing*

The surveillance program started in November 2003, when WMNP staged a special operation code named Operation Napoleon. The operation was implemented by the army, the police, NGOs, and local community members. The objective of the operation was to conduct a full blown patrol with a media coverage and public support. During the operation, 29 bomb fishermen were arrested and handed over to the court in Bau-Bau, Buton for further prosecution. Since January 2004, 13 out of 29 violators were given jail terms ranging from 12 to 15 months; the other 16 are still being processed. Since this patrolling operation, bomb blasting incidence in Park is thought to have reduced significantly.

In March 2004, the Head of WMNP and the TNC-WWF Project Leader agreed to conduct joint activities for patrolling, resource utilization/baseline surveys, and community outreach and awareness. The patrol model developed is the periodic patrol. Patrol members were appointed by the Head of the Park and are all WMNP rangers. Six rangers were assigned per trip on a floating ranger station, with each trip lasting up to 10

days. There are at least two trips planned per month. The support of a speedboat was used for emergency or incidental patrol. TNC and WWF provide logistical support to the surveillance team.

Eight periodic patrols were conducted between March and June 2004. In the next fiscal year, these periodic patrols will be continued. An internal review to assess the outcome of these patrols conducted was held by WMNP, TNC, and WWF in June 2004. It was concluded that the periodic patrol has created a stronger and much needed presence of WMNP authority in the Park. With the capability of the floating ranger station to cover large areas within the park for extended periods, visits to remote reefs and islands became possible. Although no destructive fishing was found by the patrol team in remote areas, the team perceived that blast fishing around Wangi – Wangi island was still serious. Furthermore, the patrol team acknowledged that overlapping jurisdiction with the district government had created confusion on the issue of fishers from outside WMNP who were found fishing in the Park. According to WMNP officials, jurisdiction on fishery management within WMNP belongs to the Park authority, whereas the district government also feels it has the mandate to manage fisheries in the Park. The following recommendations were formulated during the review: a) the periodic patrol should be continued; b) the outreach team should help to create support among Wangi – Wangi residents for abatement of destructive fishing; c) working groups should be created to improve patrol deployment, and recommend adjustment on surveillance guidelines and best practices.

Following this review, the head of the Park issued a decree in July 2004 discussed under Activity 7.1 above.