IUCN Conservation Outlook Assessment 2017 **(archived)**
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Please note: this is an archived Conservation Outlook Assessment for Komodo National Park. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Komodo National Park

SITE INFORMATION

Country:
Indonesia
Inscribed in: 1991
Criteria:
(vii) (x)

Site description:
These volcanic islands are inhabited by a population of around 5,700 giant lizards, whose appearance and aggressive behaviour have led to them being called 'Komodo dragons'. They exist nowhere else in the world and are of great interest to scientists studying the theory of evolution. The rugged hillsides of dry savannah and pockets of thorny green vegetation contrast starkly with the brilliant white sandy beaches and the blue waters surging over coral. © UNESCO

SUMMARY

2017 Conservation Outlook

Significant concern

The exceptional land- and seascape beauty of the site remains well-preserved and largely intact. The site contains the majority of the world's areas in which wild populations of the Komodo dragon lizard still exist with population estimated at around 2,448 individuals. The marine area of the site is, however, being impacted by a number of threats, including fishing, boat anchoring and pollution. While management efforts have so far been focused on increasing levels of visitation and issues related to conservation of the Komodo dragon, broadening of the management focus to address issues within the marine area is required to ensure effective long-term protection of the site. More effective enforcement is needed to prevent destructive fishing practices to ensure that natural assets could bring benefits to local people sustainably along with conserving natural assets.

Current state and trend of VALUES

Low Concern
Trend: Deteriorating

The exceptional land and seascapes found within the property and their beauty remains well-preserved and largely intact, despite a number of threats from both within and outside the property. The site contains the majority of the world's areas in which wild populations of the Komodo dragon still exist with its population estimated at around 2,448 individuals. The marine area of the site is, however, being impacted by a number of threats and additional management efforts are required to address those.

Overall THREATS

High Threat

While recent information on the World Heritage property is not easily available,

the threats to the site are considered significant in that there appears to be limited effective control of the activities that underpin the threats, many of which are not consistent with conservation of biodiversity values and are causing measurable damage. Of particular concern are serious issues with destructive and illegal fishing practices, exasperated by increasing levels of visitation. Major threats to the Park's reef habitats include destructive fishing practices (cyanide, blast fishing) and over-exploitation. Population growth has also reportedly become an increasing source of threats such as household sewage. With population increase the frequency of fire incidents might increase which would pose a threat to the Komodo dragon's habitat. Coral bleaching events and other impacts from climate change might occur more frequently in the future due to increase in sea water temperatures. Recent increases in visitation are already noticeable and current management efforts might not be sufficient to mitigate the negative impacts of ever increasing visitation, especially in light of the increased capacity of the regional airport at Labuan Bajo.

Overall PROTECTION and MANAGEMENT

Some Concern

The Komodo National Park was formally established in 1980 and was inscribed on the World Heritage list in 1991. The management of the park is guided by the 2000-2025 Management Plan and 2000-2014 Strategic Plan which will now require revision. While management efforts have so far been focused on increasing levels of visitation and issues related to conservation of the Komodo dragon, broadening of the management focus to address issues within the marine area is required to ensure effective long-term protection of the site. As with the management of external threats to the property concerns exist with the capacity to deal with internal issues. Overall, only a relatively small number of threats have been addressed by any concrete action and this is compounded by levels of funding, staff and capacity, which are insufficient to keep pace with mounting threats to the property. Effective management and implementation of the current management plan, including a comprehensive zonation plan for the property is needed to address the numerous threats from both within and outside the property. There is a need for legal reform, for effective collaborative management to keep collected revenues within the Park, to improve the training and education of staff and to provide facilities for both terrestrial and marine research which would also help to inform management of the property.

FULL ASSESSMENT

Description of values

Values

World Heritage values

- **Superlative natural beauty.**
  Criterion:(vii)

  Komodo National Park encompasses unquestionably one of the most dramatic landscapes in all of Indonesia. It is a landscape of contrasts between starkly rugged hillsides of dry savanna, pockets of thorny green vegetation, brilliant white sandy beaches and blue waters surging over coral. The clear blue waters and stunning coral reefs demonstrate exceptional natural beauty that is even more remarkable as a counterpoint to the dominant lushness of vegetation, which characterizes vast areas of forested Indonesia. An irregular coastline characterized by bays, beaches and inlets separated by headlands, often with sheer cliffs falling vertically into the surrounding seas, reported to be amongst the most productive in the world, adds to the stunning natural beauty of landscapes dominated by contrasting vegetation types, providing a patchwork of colours (SoOUV, 2013).

- **Threatened species habitat, namely for the Komodo Dragon.**
  Criterion:(x)

  Komodo National Park contains the majority of the world’s wild population of the Komodo dragon (Varanus komodoensis). Listed as vulnerable on the IUCN red list of threatened species (IUCN, 2014; www.iucnredlist.org) it is the largest and heaviest of the world’s lizards. The species is widely known for its impressive size, fearsome appearance, ability to prey on large animals, and a tolerance of extremely harsh conditions. The population, estimated at around

2,448 individuals is distributed across the islands of Komodo, Rinca, Gili Motong and some coastal regions of western and northern Flores (SoOUV, 2013, Purwandana et al. 2014).

▶ **Biodiversity levels including marine species.**
Criterion:(x)

Located at the juncture of two continental plates, Komodo National Park constitutes the “shatter belt” within the Wallacea Biogeographical Region, between the Australian and Sunda ecosystems. It has been identified as a global conservation priority area, comprising unparalleled terrestrial and marine ecosystems. The property is home to seven species of terrestrial mammal, including an endemic rat (Rattus rintjanus) and the crab-eating macaque (Macaca fascicularis) and 72 species of birds, including the lesser sulphur-crested cockatoo (Cacatua sulphurea), the orange-footed scrub fowl (Megapodius reinwardt), and noisy friarbird (Philemon buceroides) (SoOUV, 2013). The rich coral reefs host a great diversity of species, notable marine mammals include blue whale (Balaenoptera musculus) and sperm whale (Physeter catodon) as well as 10 species of dolphin, dugong (Dugong dugon) and five species of sea turtles (SoOUV, 2013). There are 385 species of hard corals found in the area and over 1,000 species of reef fish have been recorded (Beger & Turak, 2005). Komodo National Park and World Heritage Area has been identified as one of the richest marine diversity sites in the Indo-Pacific. It also includes important habitat and migration routes for at least 14 species of cetaceans (Kahn et al., 2000).

Assessment information

Threats

Current Threats

High Threat

The majority of major threats to the values of the Park are focussed on the marine environment and in particular the reef habitats it encompasses. These

include destructive fishing practices (cyanide, blast fishing) and over-exploitation of the resources both in terms of fishing but also for other reef resources. Population growth has also become a source of threats such as household sewage and an increase in the frequency and intensity of fires. Poaching of the local deer population deprives Komodo dragons of their vital source of food while increasing tourism and visitation is also having an impact on both the komodo dragons and the other values for which the property was inscribed.

► Fishing / Harvesting Aquatic Resources, Other Biological Resource Use, Poaching

High Threat
Inside site, scattered(5-15%)
Outside site

Komodo National Park is home to over 3,200 residents, but is also surrounded by over 16,000 people in the immediate vicinity of Flores and Sape. Many of the residents both within and surrounding the property exploit resources from the Park for their livelihoods. The Park’s eco-systems cannot sustain the growing population’s increasing wants and needs indefinitely. Key resource utilization issues include over-fishing of reef resources, destructive fishing practices, poaching, cutting forests for firewood, and fresh water supply shortages (Erdmann, 2004).

► Household Sewage/ Urban Waste Water

Low Threat
Inside site, localised(<5%)
Outside site

Indications of potential nutrient enrichment and eutrophication were detected within traditional use zones of the Komodo east region in the past. This may be indicative of sewage, organic rubbish or animal waste enrichment from Komodo village (Harvey & Yusamandra, 2010). However, there is no current data or information available to assess if this impact has continued. Population increases within and around the park are however likely to increase the potential impact from this threat.

► Other Biological Resource Use

High Threat

Inside site, scattered(5-15%)

Removal of coral reef species and resources, or reef gleaning, remains a problem on the shallow reefs in and around the Park although this destructive activity seems to have decreased over recent years (Erdmann, 2004).

► Habitat Shifting/ Alteration, Storms/Flooding, Ocean acidification, Temperature extremes

High Threat
Inside site, scattered(5-15%)
Outside site

Coral bleaching has been observed within the National Park in the past and will continue to be a threat in the future due to increasing sea surface temperatures. Another potential risk is the acidification of seawater due to increased carbon dioxide levels, which will inhibit the formation of calcium carbonate, the basic substance forming the skeleton of corals, calcareous algae, molluscs, echinoderms, and crustaceans. Extreme weather events will also impact on the terrestrial habitat through increased frequency and intensity of storms.

► Shipping Lanes

Low Threat
Inside site, localised(<5%)

Threats to the Komodo National Park marine ecosystem include anchor damage from boats bringing divers (Mous et al., 2007). Increasing visitation and utilization of the marine component of the park increases the threat of damage from boat anchoring.

► Fishing / Harvesting Aquatic Resources

High Threat
Inside site, scattered(5-15%)
Outside site

Destructive fishing practices (cyanide, blast fishing, meting) and over-exploitation (Mous et al., 2004) continue to be a threat to the Park’s reef habitats.

► Tourism/ Recreation Areas

High Threat
Inside site, scattered(5-15%)
Outside site

Annual visitor numbers increased rapidly during the 1980s, rising from 100 in 1980 to 29,840 in 1997 (KNP, 2003; UNESCO, 1997; MOF, 1990). Of these, some 90% were foreign nationals who visit during the dry season between June and September. The number of visitors to the park increased from 36,000 in 2009 to 45,000 in 2010 and to 107,000 in 2016 (KNP, 2017). Most of the visitors were foreign tourists due to the high transport costs to reach the park. The park can accommodate up to 60,000 visitors a year according to the local tourism agency. However, a major upgrade of Labuan Bajo regional airport could dramatically increase the number of tourists. The airport previously handled 150,000 tourists a year; now it can accommodate 1.5 million, with a new terminal and lengthened runway.

Potential Threats

High Threat

A number of the existing threats on the property will continue to increase with time. With population increase the frequency of fire incidents might increase which would pose a threat to the Komodo dragon’s habitat. Coral bleaching events and other impacts from climate change are likely to occur more frequently in the future due to increase in sea water temperatures along with the frequency and intensity of storms and other extreme weather events.

► Fire/ Fire Suppression

Low Threat
Inside site, localised(<5%)
Outside site

The habitats of Komodo dragons are in dry savanna and pockets of thorny green vegetation, which are vulnerable to fire events such as natural wildfires and fires caused by humans. With increasing population this will also increase the threat to Komodo dragons in terms of the risk of increasing bush and forest fire intensity (Erdmann, 2004).

► Habitat Shifting/ Alteration, Ocean acidification, Temperature extremes

High Threat
Inside site, widespread(15-50%)
Outside site

Coral bleaching events were observed in Indonesia in 1997 and 2009-2010 (Habibi et al., 2007; Ampou, 2011). However, the coral communities in Komodo National Park did not bleach during these events most likely due to the strong currents in the area (West & Salm, 2007). Bleaching has however been observed within the National Park. Coral bleaching will continue to be a threat in the future due to increasing sea surface temperatures as well as the potential of Indonesia through-flow (Arlindo) across the Lesser Sunda area that brings with it a warmer water mass. Another potential risk is the acidification of seawater due to increased carbon dioxide levels, which will inhibit the formation of calcium carbonate, the basic substance forming the skeleton of corals, calcareous algae, molluscs, echinoderms, and crustaceans.

Protection and management

Assessing Protection and Management

► Relationships with local people

Mostly Effective

There are a variety of community awareness and outreach activities, ranging from environmental lectures at local high schools to village information meetings, to a campaign that builds local pride in the Park and an awareness of its values. Other programmes include facilitation of community-based management of fishing grounds in the surrounding waters of Komodo National Park and a community consultative council. However, concerns have been raised that the group has been taking decisions without appropriate consultation.

► Legal framework

Mostly Effective

There are several key regulations which provide the legal framework and determine the management and protection of Komodo National Park, mainly the Act on Conservation of Biological Resources and their Ecosystems (National Law No.5, 1990), the Fisheries Law (National Law No. 9, 1985), the Government Regulation concerning Natural Resources Tourism in the Use Zone of National Parks, Community Forest Parks and Natural Resources Parks and Government Regulation on Conservation Areas. Park Zoning regulations were issued by the Ministry of Forestry in 2001 and the District Manggarai Regulation No. 11 of 2001. The latter is a local law that regulates the use of fishing gear in the District of Manggarai and inside the Komodo National Park, specifically banning all fishing gears that are potentially destructive. The 25-year management plan is also a source for further park regulations.

► Enforcement

Some Concern

Management activities have focused on enforcement alongside the provision of tourist facilities. Enforcement efforts have predominantly been focussed on illegal fishing but have also included poaching of other species from the park. Within the extensive marine buffer zone Park authorities have the authority to regulate the type of fishing permitted and to some extent, the presence of outside fishermen, the most persistent poachers. Implementation of a legal ban on destructive fishing and a weekly marine patrol program has previously resulted in a 90 percent decrease in blast fishing (Subijanto, 2002). However, the effectiveness of enforcement should be further improved to prevent illegal resource use and destructive fishing practices.

► Integration into regional and national planning systems

Some Concern

There is a long-term (25 Years) and midterm (5 years) Master Plan for Management of Komodo National Park. However, it is unclear how the property is considered into regional and national planning systems. The area is part of the Coral Triangle Initiative program.

► Management system

Mostly Effective

Komodo National Park is managed through the Directorate General of Forest Protection and Natural Conservation of the Ministry of Forestry. The park is governed through the 2000-2025 Management Plan which is implemented in five year segments. The park also has a 2010-2014 Strategic Plan, which requires revision and updating (SoOUV, 2013).

► Management effectiveness

Some Concern

Various monitoring programs have been implemented in the past, focusing not only on vulnerable species and ecosystems (including coral reefs and the Komodo dragons), but also on resource use by humans (Mous et al., 2004). However, there is limited up to date information available. Increasing levels of tourism and matters related specifically to the Komodo dragon are the major management issues that have been focused on to date. A broadening of the management focus to address issues within the marine area of the park along with other terrestrial species is required to ensure the long-term effective conservation of the property (SoOUV, 2013).

► Implementation of Committee decisions and recommendations

Data Deficient

There have been very few Committee Decisions in regards to the property and no recent Committee Decisions. This makes it difficult to assess the implementation of the decisions and recommendations. However, a number of early decisions appear to have not been implemented including recommendations on boundary expansion and the need for a more comprehensive zonation plan.

► Boundaries

Some Concern

The park boundaries were established when the park was gazetted in 1991 and based on the park zoning (2001). Their physical markings are mostly prioritized to those bordering settlements within the park. Most of the marine

borders are not physically marked which creates confusion on their location and as such also creates some challenges in regards to their enforcement. There have been numerous discussions and recommendations regarding expansion of the boundaries and to ensure a clear zoning plan for the property.

▶ Sustainable finance

Some Concern

In 2000, the overall budget of Komodo National Park was US$ 67,085 with 96 staff (Sumardja, 2003). According to Merkl et al. (2003) Komodo National Park needs an average endowment of $32 per hectare (NPV). Traditionally, most of the funds for the park have come from the Government of Indonesia. In 2005 the Komodo National Park was selected by the Ministry of Finance to take part in a pilot project of new financing mechanisms (Komodo National Park, 2005). This project is also enhanced by the work of TNC, which promotes, together with other actors, the establishment of collaborative management of the park (TNC, 2005). The 25-year management considers eco-tourism as the best strategy to achieve self-sustainability for the park (Subijanto, 2002; Gallegos et al., 2005).

▶ Staff training and development

Highly Effective

A number of programmes have been conducted such as, ecology, biodiversity and conservation training, staff exchange of lessons learned on park patrolling and enforcement (Mous et al., 2004).
According to the UNEP Regional Office for Asia and the Pacific, Komodo National Park assisted by the Ministry of Forestry have innovative training programs for residents and park staff (UNEP, 2002). Training and assistance programmes were also undertaken through collaborative management and the tourism concession as part of the capacity building component (World Bank, 2001).

▶ Sustainable use

Some Concern

Training of reef fishers in pelagic fishing techniques and fish processing methods, supply of materials for pelagic fishing (including ice boxes, nylon,

artificial bait, and small boats), technical and operational assistance for fisher's groups (kelompok nelayan), and development of Fish Aggregating Devices (FADs) in offshore waters to the North of Komodo National Park have been conducted (Mous et al., 2004). But greater efforts are needed in regards to sustainable use of the natural resources in the area.

▶ Education and interpretation programs

Data Deficient

There are a variety of community awareness and outreach activities, ranging from environmental lectures at local high schools to village information meetings, to a campaign that builds local pride in the Park and an awareness of its values. However, there is insufficient data to assess the effectiveness and extent of these programmes.

▶ Tourism and visitation management

Some Concern

Increasing visitation has been one of the key issues that management efforts have been focused on (SoOUV, 2013). Studies on carrying capacity as well as environmental impact assessments have been carried out and some are still planned, to be sure that the increased visitation and the resulting infrastructure would not affect the conservation and protection objectives for the property. Increasing tourism and visitation remains one of the key threats to the values of the site given the sudden increases in tourist numbers in recent years, which are likely to be further exacerbated by the recent extension of the airport at Labuan Bajo, which has increased its capacity from 150,000 passengers to 1,5 million passengers per year.

▶ Monitoring

Mostly Effective

Monitoring of coral, fish, mangrove, sea grass, cetacean, sea turtle nesting area, resource use and community perception has been conducted regularly. These activities involve researchers and volunteers (Mous et al., 2004). Monitoring of the Komodo dragon population has been ongoing but sporadic with recent publications focussed on nesting activity on Ontoloe Island, off the north coast of Flores (Ariefiandy et al ., 2013; 2014, Purwandana et al., 2014; 2016). Recent studies on the populations of Rusa deer and wild pig

populations have also been undertaken (Ariefiandy et al., 2016b). The lizard population is regularly monitored at 78 plots. A field laboratory was completed in 1984 but lacks equipment and technicians. The mangrove and coral reef ecosystems have also been monitored and restored. The potential of ecotourism has been studied. Monitoring of terrestrial wildlife has been done by the University of Udayana, San Diego Zoo, the University of California at Berkeley, Bogor Agricultural University and Gadjah Mada University. Every two years The Nature Conservancy monitors 185 sites for corals, fish and grouper and wrasse spawning aggregation sites; it also regularly conducts socio-economic studies (Tun et al., 2004).

► Research

Mostly Effective

Research and study of the unique biological features of the park is being promoted and supported by the management authority (SoOUV, 2013). There are considerable opportunities for further research to be undertaken in the property, particularly in regards to the impacts of climate change and the marine environment.

Overall assessment of protection and management

Some Concern

The Komodo National Park was formally established in 1980 and was inscribed on the World Heritage list in 1991. The management of the park is guided by the 2000-2025 Management Plan and 2000-2014 Strategic Plan which will now require revision. While management efforts have so far been focused on increasing levels of visitation and issues related to conservation of the Komodo dragon, broadening of the management focus to address issues within the marine area is required to ensure effective long-term protection of the site. As with the management of external threats to the property concerns exist with the capacity to deal with internal issues. Overall, only a relatively small number of threats have been addressed by any concrete action and this is compounded by levels of funding, staff and capacity, which are insufficient to keep pace with mounting threats to the property. Effective management and implementation of the current management plan, including a comprehensive zonation plan for the property is needed to address the numerous threats from both within and outside the property. There is a need for legal reform, for effective

collaborative management to keep collected revenues within the Park, to improve the training and education of staff and to provide facilities for both terrestrial and marine research which would also help to inform management of the property.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**

Some Concern

There is little information or data available in regards to the effectiveness of protection and management in terms of threats outside the site. However many of the threats within the boundaries of the property are the same as those from outside and as such the response is likely to be similar, all be it constrained by limitations in regards to the legal framework and enforcement. A number of the threats identified are beyond the powers of the management agency i.e. those threats arising from climate change. Others are more local in nature but without the appropriate authority and legal framework little can be done to control such threats.

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Superlative natural beauty.**

Low Concern
Trend:Deteriorating

Komodo National Park is a landscape of contrasts between starkly rugged hillsides of dry savanna, pockets of thorny green vegetation, brilliant white sandy beaches and blue waters surging over coral, unquestionably one of the most dramatic landscapes in all of Indonesia. The outstanding landscape and seascape beauty of the site has been well-preserved with some impacts to the seascape.

► Threatened species habitat, namely for the Komodo Dragon.

Good
Trend:Stable

Komodo National Park contains the majority of the world's areas in which wild populations of the Komodo dragon still exist. The largest and heaviest of the world's lizards, the population, estimated at around 5,2,448 individuals, is distributed across the islands of Komodo, Rinca, Gili Motang, Nusa Kode and some coastal regions of western and northern Flores and remains stable.

► Biodiversity levels including marine species.

Low Concern
Trend:Deteriorating

The rich coral reefs of Komodo host a great diversity of species, and the strong currents of the sea attract the presence of sea turtles, whales, dolphins and dugongs (SoOUV, 2013). Illegal fishing, boat anchoring and pollution all represent high threats to the site's marine values and more management efforts need to be focused on the issues within the marine area (SoOUV, 2013). Biodiversity levels in the terrestrial component of the property remain stable.

Summary of the Values

► Assessment of the current state and trend of World Heritage values

Low Concern

Trend: Deteriorating

The exceptional land and seascapes found within the property and their beauty remains well-preserved and largely intact, despite a number of threats from both within and outside the property. The site contains the majority of the world's areas in which wild populations of the Komodo dragon still exist with its population estimated at around 2,448 individuals. The marine area of the site is, however, being impacted by a number of threats and additional management efforts are required to address those.

Additional information

Benefits

Understanding Benefits

► Outdoor recreation and tourism, Natural beauty and scenery

The Komodo dragon, the stunning landscapes and the beautiful reef scenery have attracted people to visit the area. The Park serves as a place for sustainable development of eco-tourism both on land and in the sea. The site offers tourism activities which are significant to local, regional and international communities. Tourism is increasing in the area with regional and international tourists contributing to this increase and the site provides an opportunity for recreation and time in nature.

► Fishing areas and conservation of fish stocks

Pelagic fisheries, seaweed culture and grouper mariculture are three profitable alternative livelihood programs that are being introduced to residents in and around the Park.

► Importance for research, Contribution to education

The site provides an outstanding opportunity for education and awareness for the local, national and international community about regional biodiversity. It also provides an important site for research as a result of its position within the active volcanic “shatter belt” between Australia and the Sunda shelf. The property is identified as a global conservation priority area, comprising unparalleled terrestrial and marine ecosystems.

► Direct employment, Tourism-related income, Provision of jobs

Tourism continues to increase for the property and with high numbers of visitors many of the services to support them are provided by local

communities both within the property and through tourism related activities adjacent to the area.

Summary of benefits

The benefits from the property are largely in the conservation value of the ecosystem, including the landscape and the unique biodiversity it contains, including the Komodo dragon. The habitats within the property including both terrestrial and marine provide habitats for a number of species of global conservation concern, as well as in mitigating accelerating climate change impacts through protection of local populations from extreme weather events, the frequency of which may increase under climate change. There are also economic benefits in terms of job creation and tourism with the included marine area also potentially aiding in local fisheries.

Projects

Compilation of active conservation projects

№	Organization/individuals	Project duration	Brief description of Active Projects
1	Yayasan Komodo Kita		Community Development

№	Organization/individuals	Project duration	Brief description of Active Projects
2	Yayasan Baku Pedulli		Organic farming, Community Development and Awareness
3	Burung Indonesia		BirdLife Partner
4	Plasticman Institute		Coastal Clean-up and its sustainability waste management system
5	Komodo Survival Program		Komodo Survival Program

№	Organization/individuals	Project duration	Brief description of Active Projects
6	GEF - Global Environment Facility	To: 2011	Komodo National Park Collaborative Management Initiative. The project will experiment with a privatization scheme in park management through a Joint Venture (JV) between the Nature Conservancy (TNC) and a local tourism company (JPU) who will implement a collaborative management strategy based on a 25-year park management plan. The JV will obtain a tourism concession from government to authorize this private sector-NGO partnership to set and collect gate fees, establish and implement tourism carrying capacity limits, and to develop a tourism licensing system. The overall strategy seeks to make Komodo National Park a self-sustaining entity with its management costs being covered by tourism revenue. The project includes substantive positive incentives (a micro-enterprise fund for local family-based business, research and development of sustainable methods of marine resource use, and a community small grants fund) and will enforce negative incentives (regulations and fines) to encourage local communities to switch from the current destructive fishing practices to sustainable livelihoods based on the rational use of park resources. Innovations brought in by this project include: the testing of new park management and financing models; the partnership of an international NGO with a local tourism operator to form a Joint Venture and their use of a collaborative management approach with strong links to local community and private sector stakeholders; and the adoption of an adaptive management approach. The Joint Venture is established as a for-profit company whose revenues will be re-invested in the park.

Compilation of potential site needs

№	Site need title	Brief description of potential site needs	Support needed for following years
1	N.A.	Capacity building and development of a reliable resource monitoring system which would provide input into the management decision making process.	
2	N.A.	Assessment of the effectiveness of education and awareness raising programmes	
3	N.A.	Capacity building on alternative livelihood methods and management for local community to disengage them from direct extraction of the park resources and provide better income.	

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