

## Darwin Initiative Main Project Annual Report

**Important note:** *To be completed with reference to the Reporting Guidance Notes for Project Leaders:  
it is expected that this report will be about 10 pages in length, excluding annexes*

**Submission Deadline: 30 April**

### Darwin Project Information

Project Reference	21-019
Project Title	Strengthening marine protected areas and marine ecotourism benefits in Sudan
Host Country/ies	Sudan
Contract Holder Institution	Equipe Cousteau
Partner institutions	Wildlife General Administration; Sudan Development Initiative (SUDIA)
Darwin Grant Value	£ 300,000
Funder (DFID/Defra)	Defra
Start/end dates of project	01 April 2014 – 31 March 2017, 6 months no cost extension accepted by Defra until 30 <sup>th</sup> September 2017
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	Annual report 1: April 2014 – April 2015. Note : Defra has accepted(4 <sup>th</sup> November 2014) a no cost extension and a 6 months delay in the implementation of the project. Thus the activities reported are mainly from October 2014 – April 2015
Project Leader name	Tarik CHEKCHAK
Project website/blog/Twitter	<a href="http://www.cousteau.org/projects/protect-sharks-and-rays-of-the-red-sea/">http://www.cousteau.org/projects/protect-sharks-and-rays-of-the-red-sea/</a>
Report author(s) and date	Tarik CHEKCHAK; Abdel Rahman El Mahdi, Nigel Hussey. 30 <sup>th</sup> April 2015

### 1. Project Rationale

The Sharks and Rays programme aims to increase global recognition of Sudan as a marine biodiversity hotspot and to raise awareness on the threatened status of sharks and rays, and their potential economic importance for the local communities in a context of great poverty.

More than 90 million sharks and rays are removed from the oceans every year, either killed for their fins or caught as by-catch. It is extremely rare to hear reports of healthy shark populations. Sudan is one of the unique hotspots on earth where this statement still holds true.

Improved knowledge about the movement and residency patterns of shark and ray species will be used to update spatial management plans for Sudan's Red Sea coast and the wider region. The information will also be used to support the development of sustainable eco-tourism to

assist local communities to realize economic benefits from the wise use of their marine biodiversity resources.

Sudan borders the Red Sea, one of the most diverse tropical seas, and supports large aggregations of manta rays and large schools of scalloped hammerheads sharks among other species on the offshore reefs.

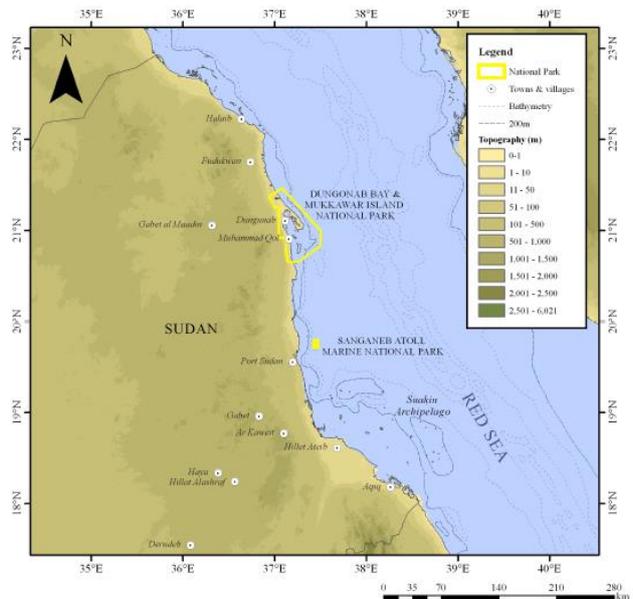
Sudan has declared two Marine Protected Areas (MPAs), Dungonab Bay and Mukawwar Island National Park (DMNP) and Sanganeb Atoll Marine National Park (SMNP). This programme will support the local management authority, the Wildlife Conservation General Administration (WCGA), to help them to be able to better manage their existing MPAs and threatened species through securing new equipment, renovating existing infrastructure and providing staff with additional training.

Shark and ray based eco-tourism can provide economic benefits to local communities through sustainable tourism ventures in areas where there are relatively reliable sightings, which is the case in Sudan. Currently, shark and ray ecotourism brings in \$314 million annually worldwide, and the sector is expected to continue growing. Community members inside DMNP in Sudan will have access to microfinance to support self-employment and income-generating opportunities. Better links will also be created with the dive operators.

There is also a capacity building component to the project, marine biologists, MPAs specialists and socio-economists from Cousteau, University of Windsor and the local non-governmental organisation SUDIA, will conduct state-of-the-art research and train local stakeholders to support monitoring, conservation management and small business development.

Summary of the core objectives:

- Build scientific knowledge and improve the conservation status of sharks and rays;
- Engage the people who rely on, and impact upon these species in the process;
- Assist local communities to realise the potential benefits of protecting biodiversity through the development of sustainable alternative livelihood initiatives;
- Build national capacity to effectively monitor and manage biodiversity of wide-ranging flagship species such as sharks and rays.



## 2. Project Partnerships

Even if the proposal has been developed by Cousteau, this multi-faceted program is a the result of a strong partnership between international and local organizations including the Wildlife Conservation General Administration (WCGA), Sudanese Development Initiative (SUDIA), the University of Windsor (UoW), The Deep Aquarium in Hull (UK), dive operators and other local stakeholders.

The WCGA is the Sudanese governmental body in charge of the development and management of land and marine protected areas. The WCGA is responsible for implementing Sudanese protocols and laws related to biodiversity and habitat conservation. Being in charge of the marine protected areas of Dungonab Bay and Sanganeb, they constitute a critical project partner. They will be the main beneficiary of the capacity building components of this project, but will also be in charge of assisting all field operations when required and committing human resources to ensure the long-term legacy of the project.

A partnership with the national organization SUDIA was formalized in the last quarter of 2014. Founded in 1996, SUDIA (Sudanese Development Initiative) is a pioneering Sudanese non-governmental organization working with a broad cross-section of stakeholders for greater stability, development, and good governance in Sudan by enhancing livelihood, reducing violence, empowering youth and advancing the role of the media and civil society. SUDIA was involved at an early stage in the design and formulation of the DI-funded project and along with the Wildlife Conservation General Administration (WCGA) are now representing the lead agencies/partners driving the project in Sudan. SUDIA is responsible of establishing and training community-based microfinance committees (one in each village in Dungonab and Mukkawar Island National Park) and facilitate access to loan capital from local banks and/or MFIs operational in Red Sea State. SUDIA will also provide support to the committees and monitor their performance, ensuring repayment and reporting conditions are met. Sudia is also responsible of organising the logistics and animations of workshops and some training sessions.

The Great Lakes Institute for Environmental Research (GLIER) at the University of Windsor is multidisciplinary with faculty and collaborators from many disciplines, including biology, geology, chemistry, engineering, marine biology, molecular biology, genetics and ecology. Researchers at GLIER address complex environmental problems that cross conventional disciplinary boundaries such as the effects of multiple environmental stressors on marine and freshwater environments. Partners based at the University of Windsor are responsible for executing the direct field research elements of project, specifically telemetry methods for tracking large megafauna. Project partners are linked directly with the Ocean Tracking Network and have extensive experience of tracking species in a range of environments and undertaking advanced statistical analysis of derived data sets. Drs. Hussey and Kessel have also maintained regular face-to-face meetings with Sudanese stakeholders during preliminary field phases in 2012/2013 and will continue on the ground communication to facilitate project success.

In Sudan, for the WCGA a government institution partnering with SUDIA for the delivery of the DI-funded project represented the first such collaboration of its kind in which the Administration is partnering and collaborating with a national non-governmental entity such as SUDIA (Figure1). As much as this is considered an achievement of the project (stimulating and encouraging collaboration between non-state actors with formal state actors on marine conservation) it also comes with some challenges. The bureaucracy when working with government institutions can oftentimes be time consuming, and the hierarchical structures mean multiple levels of authorizations and decision-making regarding different aspects related to the project. For example a technical agreement signed between the WCGA and SUDIA describing the project (in Arabic, figure 1), it's activities and the roles of each of the partners

had to pass through a number of departments at the WCGA and took upwards of nine-weeks before it was signed.

Throughout the one year period, there has been regular communication and meetings (SKYPE) between project field staff and SUDIA. These meetings have been focused on resolving the issues over the new documentation required by Security (HAK) for this Darwin Project.

### **3. Project Progress**

#### **A challenging beginning**

In late April 2014, just after the approval from Darwin Initiative, our key focal point in Sudan, Brigadier Mohammed Younis, Abdeslam, died suddenly of a stroke just before the beginning of our planned scientific field mission. It was a shock and very depressing news for all project partners but this has also impacted heavily the project's progresses during the first 6 months of implementation. Mohammed Younis for many years has played a pivotal role in the creation of the marine protected areas in Sudan and in generating the support in Sudan for this Darwin Initiative project. His sudden departure left the team with a rather challenging situation. At the outset, Mohammed assisted the team to obtain the original MoU for this project, but he also obtained the indispensable security permits each time we undertook fieldwork. The full impact of Mohammed Younis's passing became apparent a month afterward, when Dr Hussey and Dr Kessel visited Sudan for our field Darwin mission on sharks and were not able to go on the field because the security didn't issue on time the necessary permit.

Our new contact in the Wildlife General Conservation Administration (WCGA), who has taken over Mohammed Younis's role, did everything possible to assist the team to obtain the necessary security permits. Unfortunately, although the team were given verbal reassurances that the security paperwork was forthcoming, they instead spent 2 weeks in meetings in Khartoum discussing the paperwork and were unable to undertake fieldwork.

As a result, the project got off to late start and it was only after the agreement signed with partners in Sudan in October/November 2014 were concrete steps taken in Sudan to roll out the project. This is why a delay in the project beginning has been submitted to Defra and accepted the 4<sup>th</sup> November 2014.

According to the requirements of the federal/state government in Sudan, a project technical agreement (in Arabic) would need to be formulated and approved by the regulatory bodies at both state and federal levels.

The project technical agreement was developed and signed by the principal partners in Sudan, namely the Wildlife Conservation General Administration (WCGA) and SUDIA. The TA was then presented to state authorities for approval in December 2014.

Due to a politically/socially charged environment in Sudan ahead of the April 2015 elections and some security concerns/anxieties around the project, the formal approval of the security for the project has to date not been secured. Project partners in Sudan have been earnestly working to overcome these hurdles.

Whilst awaiting final approvals project partners have decided to proceed with implementation of activities to the extent possible. Some activities, which require official permits and approvals to be held, would have to await the formal approval, however the national partner on the ground – SUDIA, felt that preparatory steps for some activities could proceed.

### **3.1 Progress in carrying out project activities**

**Output 1 : National capacity to effectively manage two existing MPAs in Sudan strengthened through building a common future vision among a wide range of stakeholders, renovating existing infrastructure, procuring new equipment and using the scientific results to update the DMNP zoning plan.**

*Activities planned to be carried out during the first year*

#### **1.1 A community visioning workshop for the Dungonab Bay Marine Park,**

Progress to date has been limited to identifying and holding meetings with a number of principal stakeholders that will act as the planning/supervisory committee for the visioning workshop. These include the UNESCO Chair for Marine Science, the National UNESCO Committee – Man and Biosphere (MAB), the Ministry of Tourism and Wildlife in Red Sea State, both the Institute and Faculty of Marine Science of the Red Sea State University, the Wildlife Conservation general Administration. These meetings served to a) validate and confirm the need for a gathering that would bring together a number of stakeholders together to explore a common future vision for the sustainable development of the Dungonab Bay Marine Park and marine resources/biodiversity falling within the park domain; and b) Enlist the willingness and support of these principal stakeholder representatives in acting as a steering/planning committee for this Future Search workshop. Progress on this activity has been slow due to the other broader procedural and roll-out challenges facing the project in Red Sea State.

#### **1.2 Renovation of existing building to serve as both a ranger station and a visitors centre**

This activity is in progress (Plate 1). Key tasks completed included an assessment visit to the buildings in the MPA by a team comprised of a representative from SUDIA, the WCGA, and two (2) Civil Engineers in early January 2015. The visit resulted in identification and quantification of the renovation works that are needed. Following that contractors were invited to bid on the works to be undertaken and four bid offers were received from contractors in the Red Sea State for a bill of quantities and offers provided by contractors. A committee comprised of SUDIA Project Operations officer, a representative from the WCGA, and an engineer from the Ministry of Interior reviewed the offers and selected the winning bid. A contract has been drawn up and actual work on the renovation is expected to commence during Q2/2015.

#### **1.3 Procuring small vessels and other equipment needed for monitoring, control and surveillance.**

Multiple offers for the purchase of two (2) boats equipped with outboard engines have been solicited from vendors both inside and outside Sudan. Based on specification requirements and pricing, An Egyptian vendor has been selected and a purchase order has been issued (Plate 2). Delivery of the boats is scheduled for Q2/2015.

#### **1.5 Meeting with WCGA Officers at the start and end of the project to complete MPA Management Effectiveness Assessments (using WWF-World Bank Scorecard method or equivalent).**

The MPA Management Effectiveness Assessment for Dungonab has been completed using WWF-World Bank MPA Scorecard method in collaboration with our partners at the WCGA (Figure 2). This MPA assessment method is the more basic of several different methods available. The results provide the basis for the fuller GEF METT method (Management Effectiveness Tracking Tool), which is the method that all projects funded by the Global Environment Facility (GEF) are required to do at the start middle and end of the project. The GEF METT will be completed shortly.

**Output 2 : Scientific knowledge about marine biodiversity and flagship species is increased and national capacity for monitoring is strengthened by training in scientific and participatory monitoring methods, generating data for use in biodiversity planning and management.**

*Activities to be carried out during this reporting period include*

**2.1 Acoustic telemetry equipment procured and shipped to Sudan and deployed in-water in Year 1 and maintained through Year 3. Focal species tagged in Year 1 and 2.**

-Import of batteries for bottom monitors (VR2Ws that detect the tags implanted in manta rays and sharks) to Sudan. These batteries are lithium and hence problematic for shipping internationally. Many courier companies will not handle shipping these plus most restrict which destinations they will ship to. Following a six-month process the batteries were delivered to Khartoum in July 2014. All relevant paperwork was completed with Sudanese authorities for the import of the batteries and these are now stored by SUDIA. A three-year supply of batteries was sent to Sudan to cover the project time frame.

- Recovery and storage of VR2W monitors deployed on Sudanese offshore reefs including Sanganeb Marine Protected Area.

Several dive boat project partners retrieved the VR2W monitors deployed on offshore reefs. These monitors are now stored on two dive boats in PS, Don Questo and MY Elegante. During the next fieldwork (planned for October/November), monitors will be serviced, batteries replaced and redeployed.

**2.5. At least 50% of dive operators (5 out of the 10 companies) currently operating in Sudan reporting daily results to Divers Aware of Sharks (DAS) monitoring programme by end of Year 1 and continuing through to Year 3.**

Even is initially planned for Year 2, we have already made significant achievements and a Master student from the University of Cardiff (UK) has been compiling existing DAS data (figure 6). At the end of the period, 3 companies are already contributing to DAS surveys.

**2.6. Sudanese staff member regularly liaising with dive operators and collecting DAS results.**

The staff has been identified and his currently being trained.

**2.7. 4 x WCGA Officers / Students trained and qualified SCUBA divers by the end of Year 1 and able to participate in monitoring surveys in Year 2 and 3.**

Training provider identified. Candidates to participate in the training have also been identified. Training planned to take place in May/June 2015.

**2.8. 4 x Sudanese nationals trained in Year 1 and able to implement coral reef monitoring surveys by end of Year 3.**

Slow progresses, we need to strengthen the communication with the Red Sea University in order to identify potential trainees. To accelerate and smoothen the process a potential sudanese facilitator has been identified and will be offered a short term consultant contrat (Dr Dirar Nasr, Red Sea University). They are also issues to solve also around « incentives » requested by the Red Sea University for the trainees. We said that we accept to cover the costs of travels, food and accommodation, but that can't accept to pay them to attend the workshop. It is a recurrent issue in Sudan and we are trying to find a nice way to handle this.

**Output 3. Livelihoods of the communities of Mohammed Qol and Dugonab increased. The socio-economic resilience is improved and the understanding of the economic value of healthy ecosystems insured mainly through the shared benefices with the dive industry.**

*Output 3 Activities to be carried out during this reporting period include:* 3.1. Field visit to refine outcomes from previously completed coastal livelihood assessment; 3.2. Business plans for nature-based ecotourism livelihood opportunities; 3.3. Training on eco-tourism guidelines; 3.4. Establishment of Microfinance Committees; 3.5. Training of Microfinance Committees; 3.6. Establishing linkages with banks and MF providers, and 3.7. Supporting with Monitoring and reporting on MF performance.

Progress has been achieved for the following two objectives:

### **3.1. Field visit to refine coastal livelihood assessment**

This activity has been completed (Plate 3). Terms of Reference were developed for the assessment and a team comprised of four persons along with the project operations officer and project director undertook the fieldwork during the period Jan – Feb 2015. Terms of Reference for the study can be provided and the final updated assessment is under compilation/review.

### **3.2 Business plans for nature-based ecotourism livelihood opportunities -**

This activity has been completed as part of the coastal livelihoods assessment and a number of IGA products that are nature-based and eco-friendly were identified during the field visit in Jan/Feb 2015. The report is being prepared.

**Output 4: Increased awareness of the globally significant marine biodiversity and flagship species found in Sudan's Red Sea among a broad range of national, regional and international stakeholders**

*Output 4 Activities to be carried out during this reporting period include:*

### **4.1. Recruiting a Sudanese staff**

This activity has been completed and a Sudanese staff member has been contracted as Operations Officer as of January 2015. The job description of the Sudanese staff member could be provided.

### **4.2. Bi-annual Project Steering Committee meetings for Darwin Project to discuss project progress and monitor delivery.**

Fieldwork in Port Sudan (PS), meeting with project Steering Committee in PS, meeting with relevant high-level project partners in Khartoum (Principally senior personnel of the Wildlife Administration) and annual update meeting with all partners, invited guests, students and general public at Red Sea University (PS). Scheduled for May 2014.

Communication beginning early January and on a regular basis until early May with our long-term fixer in Sudan to organize all aspects of the visit. Unfortunately our project fixer, Mohammed Younis, died in early May just days prior to the departure of our science team, which seriously limited our ability to resolve issues on the ground. Fieldwork and meetings in PS were not possible. On a positive, team members met and worked with staff at the Wildlife Administration in Khartoum for a 2.5 week period. During this period, team members presented an overall project summary to senior Wildlife Administration personnel and invited guests and a second presentation on identifying common sharks species off the Sudanese Red Sea Coast. Multiple meetings were held between team members, Wildlife Administration staff and Security to start the process of organizing new documents required by Security (HAK) to support the implementation of the Darwin project. A line of communication was also established between Khartoum and Red Sea State Wildlife Administration and Security personnel and team members held several face to face meetings with SUDIA director, Abdel-Rahman El Mahdi and senior staff member appointed to assist with above document process, Ahmed Hanafi. In addition, equipment carried by team members for fieldwork was stored with SUDIA.

#### **4.3. Preparation of the bi-annual Darwin report**

With the submission of this report the first instance of this reporting requirement has been satisfied.

#### **4.4 Annual stakeholders workshop to report/share progress –**

This activity has been postponed to a future date, most likely October 2015 but we are still waiting feedbacks from key stakeholders about the possible dates.

#### **4.7. Contributing to preparing media statements and articles**

An initial press release has been prepared and shared with key medias. A radio interview broadcast was organized with one of the local FM Radio channels in Khartoum State. Initial interest rose from the BBC and Aljazeera, to cover mainly the tagging fieldwork. A leaflet presenting the project in English and Arabic has been prepared (figure 3). Team member Nigel Hussey published a short correspondence in the scientific journal Nature in October 2014 highlighting the issues facing the conservation of biodiversity in politically unstable regions; Conservation: Sanctions derail wildlife protection, Nature, 514, 305. This written piece was a direct result of conversations with Wildlife Administration staff in Khartoum during the above May visit.

#### **4.8 Contributing to the preparation of a dedicated project website –**

A series of domain names have been registered and the website conceptualization is underway. The website will be developed and launched towards the end of 2015. A company based in Dubai has been identified and will deliver the project's web site in both English and Arabic.

### **3.2 Progress towards project outputs**

Progress towards outputs and the relevant indicators is slow but steady.

#### **Progress towards output 1: national capacity improved to effectively manage the MPAs in Sudan**

It is too early to assess at this stage of the project. The main achievement is the completion of the scoring for the MPA management effectiveness that will be a baseline data to assess the outcomes of the project at the end of year 3. Quotations for the boats and for the building renovations have been obtained and the procurement process is underway. Key equipment and sensitive have been procured and shipped in Sudan.

#### **Progress towards output 2: Increased scientific knowledge about flagship species and national capacity for monitoring them and their habitats strengthened.**

Delays in the delivery of planned fieldwork during year 1 because of security issues. We expect greater results during year 2.

#### **Progress towards output 3: Livelihoods of the communities of Mohamed Qol and Dunganab increased**

The livelihoods assessment that was carried out in early Jan/Feb 2015 represents a first step in the project tackling issues related to poverty alleviation. During the fieldwork the two park communities (Mohamed Qol and Dunganab) and their traditional leaders discussed thoroughly the challenges and difficulties facing their livelihoods. The discussions identified a number of areas where the project may be supportive and contribute to poverty alleviation. A number of IGA products that are nature-based and eco-friendly were identified during the field visit and a report is currently being prepared.

## **Progress towards output 4: Increased awareness of the globally significant marine biodiversity and flagship species of Sudan.**

Over this reporting period, meetings between the project partners at the national level have contributed to an increased sense of ownership and trust towards the project. This represents an essential backdrop to any effective management of the MPAs.

All the background and preparatory stages, which would contribute to the achievement of the four project outputs, are in place.

The project has helped the CBD secretariat to identify the projects areas as Ecologically or Biologically Sensitive Areas (EBSAs).

### **3.3 Progress towards the project Outcome**

**Project outcome : To strengthen Sudan's MPA management capacity, increase knowledge and awareness of marine biodiversity and flagship species, and assist two local communities to realise biodiversity benefits through sustainable nature-based livelihoods.**

Progress towards the overall project outcome has been slow during this reporting period, mostly due to the procedural challenges and hurdles that the project faced. Please refer to section 10 of this report for a description of these challenges. Nonetheless, in trying to overcome these challenges, a stronger bond between the projects partners on the one hand and the project and beneficiaries on the other has transpired. At the village level, the traditional leaders remain apprised of the situation and have voluntarily been advocating for the project with the local state authorities.

In March 2015, WCGA high-level representatives accompanied by the SUDIA director held meetings with officials in Red Sea State to address any concerns or questions that the state authorities may harbour towards the project. These interactions at different levels and across different stakeholders has served to create a sense of agency and ownership of the project at the local level and the overall outcome it aspires to achieve.

### **3.4 Monitoring of assumptions**

#### **Monitoring of assumption 1**

- Relationships between Red Sea State government and WCGA remain stable; It is still the case, but they are from time to time political tensions between the central and the federal government that may impact the capacity to work of the WCGA in the Red Sea State.
- Experienced facilitator that is able to manage a broad range of stakeholders and bring them to a common vision;

Sudia has proved its capacity in this, but with seriously miss the capacity of the deceased Mohamed Younis when it is about dealing with people of the national security. So there is still a weakness here.

- The park building is in suitable condition for renovation and there is sufficient commitment from WCGA to undertake required work and ensure that the renovated building is maintained and the running costs covered;

The first assessment of the physical condition of the building were promising.

- Results of the scientific and monitoring surveys collated into a geodatabase and available for use in re-zoning DMNP; Too early, this is linked yo obtaining the permits from the security

- WCGA are interested to learn about MPA Management Effectiveness Assessment methods and to monitor progress.

So far very much so, they are very enthusiastic about this possibility.

### **Monitoring of assumption 2**

- No problems encountered in transporting acoustic telemetry equipment to Sudan; The Lithium are always a problem, the rest of the equipment is ok.
- No significant natural or man-made impacts occur in the study region during the project that impacts the environment and /or prevents the team from undertaking required field work and training;  
No significant problems identified this year.
- No significant equipment failures or losses;  
A certain percentage of bottom monitoring stations can be lost or stolen, we are trying to reduce as much as possible this risk.
- Suitable trainees are identified and remain in the same institution at least for the duration of the project;  
Too early to assess.
- Commitment and consistency of dive operators participating in DAS surveys and assisting fieldwork operations;

It seems to be a good commitment, the Cousteau name helps a lot in this community of fanatic divers.

- Continued support by WCGA for all fieldwork operations.  
Yes but they lack capacity and are a weak institution in Sudan (compared to the security for instance).

### **Monitoring of assumption 3**

- Community based livelihood assessment identifies viable gender balanced livelihood options;  
When they are linked to sustainable tourism, they are very sensitive to the political / security situation of Sudan, or at least how this is perceived by the tourist. So this assumption is important and may present some weakness.
- Interest of local community in the proposed CB-MFC and trust established;

The first meeting with the local leaders have proved their interest. But they are more interested by water / sanitation related issues then ecotourism because they still have a hard time to figure out the economic potential for their livelihood.

- Access to loan capital from local banks and/or MFIs operational in Red Sea State successfully facilitated;

Too early to assess.

- Local acceptance of gender equity in the composition of trainees within CB-MFC;

Clearly an issue but Sudia is experienced in handling this.

- Training and support provided to CB-MFC is sufficient to ensure that participants are able to meet repayment and reporting conditions;  
Too early to assess.
- Commitment of dive operators to engage their clients with local community based organisation;

This is linked to the ecotourism offer that the local communities will be able to present with our help and support. There is a risk that the dive operators prefer to do only boat based diving without spending a day or two at the vicinity of the local communities.

- Political situation in Red Sea State remains sufficiently stable and tourist visitor numbers remains stable (or increases);

Very uncertain, but this is the current situation of Sudan.

- Socio-cultural and economic environment flexible enough to accommodate change;

Also very uncertain in Sudan.

- Resilience of the local communities considered (capacity to scope with abrupt changes - no more tourism coming because of extreme events).

Included in our livelihood options, with a portfolio of a diversity of activities, not only focusing on tourism.

#### **Monitoring of assumption 4**

- Suitable local project coordinator with relevant skill base and expertise can be found and employed person is committed to the overall goals of the project;

Sudia is providing that nicely.

- Project Steering Committee (existing) continues to provide guidance and support for the successful implementation of Darwin Initiative project;

It exist but we are still missing key stakeholders (not only the WCGA but also Red Sea University and Red Sea State representatives, we are working on it.)

- Adequate support provided to ensure that a local community representatives and other key stakeholders can all participate in Annual Stakeholder Workshops;
- Results of sufficient quality to be of interest to scientific community;

So little is known about the sharks and rays of Sudan, that we are confident that any results will interest the scientific community. Plus we have very experienced and skilful scientists in our team, familiar with publishing in peer reviewed scientific literature.

- Interesting results and scientific findings from the Darwin Initiative project are clearly communicated to the media and scientific community.  
Same as above.

### **3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation**

The project being in its early phase, this important impact cannot be assessed properly at this stage.

## **4. Project support to the Conventions (CBD, CMS and/or CITES)**

It is too early to assess how the project contributes to the CBD, CMS and CITES but there is already one important achievement:

A CBD regional workshop has been held in Dubai between the 19-25 April 2015. The core objectives of this technical meeting were to identify, and facilitate the description of Ecologically or Biologically Significant Marine Areas (EBSAs) in the North-West Indian Ocean, Red Sea and Adjacent Gulf Areas. The project manager Tarik CHEKCHAK was invited to contribute as an expert and together with several team members (Dr Rebecca Klaus, Dr Nigel Hussey) has helped the Sudanese representative, Dr Dirar NAST, to fill the EBSA templates for Sudan.

Three EBSA sites were proposed for Sudan, including the MPAs where the Darwin funded project is currently developed:

- Sanganed Marine National Park and Chaab Rumi
- Dungonab and Mukkawar Island National Park
- The Suakin archipelago and the Deep South of Sudan.

The workshop was conducted pursuant to a request by the conference of the Parties to the CBD, at its thirteenth meeting, to organize a series of regional workshops with a primary objective to facilitate the description of ecologically or biologically significant marine areas.

In 2008, the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 9) adopted the following scientific criteria for identifying ecologically or biologically significant marine areas in need of protection in open-ocean waters and deep-sea habitats (further details available at <http://www.cbd.int/marine/doc/azores-brochure-en.pdf>)

1. Uniqueness or Rarity
2. Special importance for life history stages of species
3. Importance for threatened, endangered or declining species and/or habitats
4. Vulnerability, Fragility, Sensitivity, or Slow recovery
5. Biological Productivity
6. Biological Diversity
7. Naturalness

In 2010, COP 10 noted that areas found to meet the criteria may require enhanced conservation and management measures, and that this can be achieved through a variety of means, including marine protected areas and impact assessments.

In total 32 marine areas were described as EBSAs by the workshop.

It is an important step to have the project area recognized as of regional and global significance and the fact that Darwin Initiative is supporting this project as certainly contributed to attract the interest of the workshop participants (figure 5).

Sudan signed the CBD on 1992/06/09 (ratified 1995/10/30). Before the end of year 3, it is expected that this project will increase the capability of Sudan to directly contribute towards the Aichi Biodiversity Targets particularly Targets 12 and 6 through improving the conservation status of threatened species; Targets 1 and 2, by increasing biodiversity awareness linked to poverty reduction strategies; Target 11 MPA network planning but also; Targets 10, 14, 17 and 19.

**CITES:** Two species of manta rays and the scalloped hammerhead shark, all recently listed on CITES Appendix II, are abundant in Sudanese waters and form the focus species of this project. Awareness raising over CITES regulations and compliance is required at state and federal levels. Project data will feedback directly to the CITES coordinator in Khartoum with whom contact has been established.

**CMS:** The project will generate knowledge of relevance to the MOU on Migratory Sharks. There is a paucity of data on the residency and movement patterns of large elasmobranchs in the Red Sea region. The focus species, are designated as vulnerable and endangered (IUCN Red list) and are considered highly migratory. This spatial movement data will feed directly into

spatial management planning of migratory species and formalise Sudan's commitment to CMS (not yet signatory - range country). During the CBD recent workshop, CMS secretariat has requested the support of the project leader to convince Sudan to sign the CMS.

The focal point in Sudan of the CBD is:

Prof. Haider Elsafi Mohamed Ali Shapo  
Secretary General  
Higher Council for Environment and Natural Resources (HCENR)  
Gamaa Street  
P.O. Box 10488  
Khartoum  
Sudan

## **5. Project support to poverty alleviation**

The livelihoods assessment that was carried out in early Jan/Feb 2015 represents a first step in the project tackling issues related to poverty alleviation. During the fieldwork the two park communities (Mohamed Qol and Dungonab) and their traditional leaders discussed thoroughly the challenges and difficulties facing their livelihoods. The discussions identified a number of areas where the project may be supportive and contribute to poverty alleviation, these included :

- Drinking Water - the area is lacking groundwater and the two villages are dependent on water being trucked in from a desalinization plant from the neighbouring locality which is almost 40Km away. This despite the existence of a desalinization plant that exists within the proximity of one of the villages (Mohamed Qol village) but which lacks spare parts and proper maintenance. Through DI project funds the proposal is to provide training to a community water management committee on maintenance procedures for the water plant and procure the required parts to have the desalinization plant operational once again.

Vocation Training on Boat engine maintenance/repair and setting up of a community-owned parts/repair shop in one of the villages.

Support through microfinance for individual income generating projects in ecotourism. These pre-identified IGAs were identified in close consultation with the communities, and are based on skills and capacities that exist within the community. They rely on inputs that are available within the MPA and have a small environmental footprint, but more importantly, they are gender-sensitive.

## **6. Project support to Gender equity issues**

Although this could be difficult to achieve because most of the leaders in this part of the world are males, the local partner Sudia is familiar with gender mainstreaming. Already 2 women have participated to the community leaders meetings in Mohamed Qol and Dungonab, which is quite promising (plate 3). However, it is too early at this stage to assess effectiveness in supporting equity issues.

## **7. Monitoring and evaluation**

After the first Darwin Initiative workshop, the different partners involved have prepared together Monitoring and Evaluation Plan defining indicators, data sources, frequency, templates and responsibilities. An Excel file of this plan could be provided upon request. Using the SMART analysis, we tried to improve our indicators.

We use also a web base tool named "Basecamp" where every partner could share key information and production under the relevant activities. Basecamp offers to-do lists, wiki-style web-based text documents, milestone management, file sharing, time tracking, and a messaging system. All key documents and templates are also available on this web based

management platform. We have also regular skype meetings between UK, Canada, France and Sudan.

Finally, the project's partners have MoUs and contracts with Cousteau, which all reflect the requirements and templates provided by Darwin Initiative.

## **8. Lessons learnt**

According to the procedural requirements in Sudan a technical agreement describing the project must be developed and approved by state and federal authorities in Sudan. This technical agreement was presented to the state authorities in Red Sea State in December 2014. In January 2015, the local partner SUDIA was notified that the format for the technical agreements had changed and that they are required to re-submit the technical agreement along the new format. Revisions were made as per the new format and re-submitted to the state level authorities in early January 2015.

Security complications coupled with the overall politically charged environment in Sudan ahead of the election which were held in April 2015 have delayed the approval of the project. In March 2015, representatives from the national partners at the WCGA convened meetings with the state level security authorities to address any security concerns regarding the project, and were informed that the security clearances would need to come from Khartoum. The charged political environment ahead of the April 2015 elections has prevented the meeting between WCGA and National Security from taking place up until the writing of this report.

Sudan is generally one of the most difficult environments to work in, especially within the currently prevailing context of economic sanctions, dwindling space for civil society and civil conflict in different parts of the country. Despite these difficulties, the project partners as well as beneficiaries and key stakeholders remain committed to the project and are of the opinion that the project remains valid and viable. However, the Sudanese contexts requires management to adopt a more flexible approach during the coming period and be able to capitalize on the openings that present themselves from time to time, to make headway, and advances with implementation.

There is a great need for plasticity in project execution timeframes, and the need to compartmentalise project sections to facilitate independent initiation across uncertain / changing permissions.

## **9. Actions taken in response to previous reviews (if applicable)**

Not applicable

## **10. Other comments on progress not covered elsewhere**

None

## **11. Sustainability and legacy**

The sustainability of the project is clearly linked to the incomes that both local communities and Wildlife Conservation General Administration could generate from the sustainable ecosystem services the MPAs could generate. The most important and promising in Sudan are linked to cultural services and among them mainly ecotourism. But in a country like Sudan, with political instability and recurrent security issue, it is a difficult goal to achieve. At the moment, most of the local communities have a hard time to foreseen the potential of ecotourism. The majority of the international tourism in the Red Sea States revolves around the dive industry and the live-aboard dive boats. The number of live-aboard dive vessels operating out of Port Sudan has

increased from 8 vessels in 2000 to 13 vessels in 2014. There are 8 European-owned boats permanently stationed in Sudan and 7 Egyptian boats that visit Sudan on a weekly basis throughout the diving season. Tourist live-aboard dive boats primarily visit places close to Port Sudan, including Sanganeb Marine National Park and the famed Shaab Rumi. Diving within Dungonab and Mukkawar Island Marine National Park, often focuses on offshore dive sites such as Angarosh on the reserve boundary as there are limited facilities on land.

The dive tourism season in RSS extends from the end of September to June. The dive boats typically visit the manta ray aggregation at Mesharifa within Dungonab Bay Marine Park (DMNP) between September and November. Compiled survey and observation data and initial satellite tagging data, however, confirm the manta rays are present year round.

The prime months for viewing sharks on the offshore reefs are between February and May. The summer months (June-August) are too hot for tourism; even many local RSS residents temporarily move to cooler areas in Sudan to escape the heat during these months.

Most dive tourism clients come from Europe, particularly England, Germany, Austria, Italy, France and Spain, but also increasingly from Eastern Europe (such as Estonia, and Russia). The vast majority of tourists are 'fanatical divers', while many are avid photographers.

Another important recent development is a new weekly direct flight route between Dubai and Port Sudan. This flight, operated by a new airline FlyDubai, provides an extremely reliable and simplified travel route for internationals to directly fly into Port Sudan (avoiding the previously required transit through Khartoum). This has also led to the emergence of a new type of regional tourism, mostly composed of foreign expatriates and permanent resident from the Emirates, who wish to have an authentic Red Sea experience.

A major down-side of the current RSS dive tourism sector is that the industry generally has very little interaction with local communities and contributes little to the local economy (mainly because it is boat-based and internationally-organised).

At its core, this project aims to address this issue. This will be achieved through building upon the well-established working relationships between the proposed project staff and the dive operators in Sudan as well as with the local communities.

A major legacy of the project would be that local communities are able to offer quality experiences to foreign tourists inside the boundaries of the MPAs. There is certainly a great potential for Manta Rays watching and snorkelling using for this small fishing vessels.

As a former Minister of Tourism, the current State Governor is viewing the expansion of the tourism sector in RSS as a top priority. The Governor is actively working towards improving tourism experiences in the RSS, largely through adopting Egyptian Red Sea tourism as a model. As part of this strategic tourist development plan, Port Sudan has been modernised with improved electricity and water supplies.

The Parks and surrounding areas have huge potential to act as a hub for the development of sustainable and high-value marine ecotourism. A sustainable inclusive approach, through which the local communities see tangible benefits, which are equitably distributed and the natural assets and resource base are well managed to ensure long-term sustainable use, is important to garner wider-spread support for untapped, revenue-generating tourism in this region. This will be the role of our local project partner Sudia.

Another important legacy will be an increased capacity of the rangers to manage the MPAs and finally and increased Sudanese knowledge of sharks and rays ecology and related habitats (especially among the rangers and the students of the Red Sea University). A digital map with updated zoning a different layers of information about the MPAs would be also a great asset.

## **12. Darwin Identity**

Darwin logo as been clearly mentioned in any outreach material (in English and Arabic - figure 3). The logo is also indicated on the Cousteau's web site in the web page describing the project (in English and French : <http://www.cousteau.org/projects/protect-sharks-and-rays-of-the-red-sea/>).

A specific web site for the MPAs is under development and Darwin Initiative logo will be clearly shown.

We don't have at this stage an effective social media account but one will be created just before the beginning of the tagging field-work.

### 13. Project Expenditure

#### Proposed Budget changes

	2014-15	2015-16	2016-17	Total	End date
Current	150,000	75,000	75,000	300,000	31-3-17
Proposed	112,500	93,750	93,750	300,000	30-9-17

Accepted by Defra the 4<sup>th</sup> November 2014.

**Table 1 Project expenditure during the reporting period (1st April 2014 – 31 April 2015)**

Project spend (indicative) since last annual report	2014/15 Grant (£)	2014/15 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				6 months delay accepted by Defra
<i>Lead organisation</i>				
<i>Partner organisation</i>				
Consultancy costs (Lead+partner)				6 months delay accepted by Defra
<i>Output 1.</i>				
<i>Output 2.</i>				
<i>Output 3.</i>				
<i>Output 4.</i>				
Overhead Costs				6 months delay accepted by Defra
Travel and subsistence				6 months delay accepted by Defra
<i>International travel</i>				
<i>National travel</i>				
<i>Fieldwork travel and subsistence</i>				
Operating Costs				6 months delay accepted by Defra
Capital items (see below)				6 months delay accepted by Defra
<i>Building renovation in Dungonab</i>				
<i>2 x small vessels</i>				
Others (see below) Accoustic tags				The total cost is £16 992, the other part is covered by co-

				financing from The Deep
<b>TOTAL</b>	<b>112 500 £</b>	<b>27 176.8</b>		

**14. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes**

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

The Cousteau Society, represented by Tarik Chekchak, took part to an international workshop organized by the Convention on Biological Diversity (CBD), in Dubai from the 20 to the 25 of April. The Cousteau Society goal was to describe and identify with CBD significant marine areas deserving the greatest attention of the United Nations. The workshop focus on the north-west indian ocean region and adjacent gulf areas, as the Red Sea and the Aden gulf. Dr Dirar Hassan Nasr, representative of Sudan and Tarik Chekchak, feature the importance of the Sudanese coast, especially the two Marine Protected Areas of Sudan supported by Darwin initiative : Sanganed National Park and Dungonab Bay and Mukkawar Island National Park.

Both areas were accepted by the CBD and will be submitted to the Conference of the Signatory Parties (COP) for a final endorsement.

The CBD is one of the three international treaty signed during the Rio Summit in 1992 (Convention on Climate Change and Convention to combat desertification). The Conference of the Parties, its governing body, advances implementation through the decisions adopted at its periodic meetings. At the outcome of the tenth meeting in Nagoya, the signatory countries formulate a Strategic Plan for Biodiversity with the purpose of safeguarding biodiversity and enhance its benefits for people. Twenty objectives, so-called the Aichi Biodiversity targets, will have to be achieved by the end of 2020. To make this plan concrete, several regional workshops will be hold to draw up the inventory of ecologically or biologically significant marine areas (EBSAs).

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2014-2015

Project summary	Measurable Indicators	Progress and Achievements April 2014 - April 2015	Actions required/planned for next period
<p><b>Impact</b></p> <p>To rebrand Sudan as a global marine biodiversity hotspot and ecotourism destination, contributing to MDG and biodiversity convention targets, by ensuring local community livelihoods benefit from strengthening in biodiversity management.</p>		<p>The two marine protected areas of Dungonab and Mukkawar Island, and Sanganeb, have been accepted as Ecologically and Biologically Sensitive Areas by the CBD/ CMS secretariats. This is a direct early result of the project.</p> <p>For the rest, the project is too young and has suffered from a 6 months delay and thus can't yet highlight biodiversity or livelihoods achievements.</p>	
<p><b>Outcome</b> To strengthen Sudan's MPA management capacity, increase knowledge and awareness of marine biodiversity and flagship species, and assist two local communities to realise biodiversity benefits through sustainable nature-based livelihoods.</p>	<p>Indicator 1 : National capacity to effectively manage MPAs increases from the baseline score achieved in Year 1 by at least 20% by Year 3.</p> <p>Indicator 2: Scientific knowledge about marine biodiversity and flagship species is increased and national capacity for monitoring is improved during the course of the project from Year 1 to Year 3.</p> <p>Indicator 3: Percentage of the 300 households in Dungonab and Mohammed Qol that take up the microfinance initiative, report an improvement in income as a result, increases to a target of 5% of all households in Year 1, 15% of all households in Year 2 and 30% of all households in Year 3.</p> <p>Indicator 4: Awareness of the globally significant importance and value of marine biodiversity and flagship species in Sudan increased at the local, national, regional and international level by Year 3.</p>	<p>The baseline scoring of MPA effectiveness assessment has been done.</p> <p>Too early, could be assessed during Years 2 and 3.</p> <p>Too early, could be assessed during Year 3.</p> <p>Strong support from the project members to the Sudanese representative during CBD/EBSA workshop. Training and coaching of the representative in how to fill the EBSA criteria. As a result, the 2 sites have been endorsed by the CBD as potential EBSAs.</p>	<p>Final scoring will be done at the end of year 3. This will allow to compare and see the project's impacts.</p> <p>We are still confronted to the issue of security permits before going on the field. This should be resolved by meeting the head of security in Khartoum in June. Then tagging field work is planned in September.</p> <p>Identify potential households that could enter the project.</p> <p>National workshops, communication and outreach nationally, in the region and internationally.</p>
<p><b>Output 1. National capacity to effectively manage two existing MPAs in Sudan strengthened through building a</b></p>	<p>Indicator 1.1. Common vision for the future of the MPAs agreed among a broad number of stakeholders by the end of Year 1.</p>	<p>Key stakeholders informed and agreed with the proposed vision. As a result a leaflet with their logo describing the project as been published and is being distributed. A larger</p>	

<p><b>common future vision among a wide range of stakeholders, renovating existing infrastructure, procuring new equipment and using the scientific results to update the DMNP zoning plan.</b></p>	<p>Indicator 1.2. Existing buildings in DMNP renovated and functional as Park Ranger management/science/education base by end of Year 2, and as Visitors Information Centre by end of Year 3.</p> <p>Indicator 1.3. 2 x vessels and other equipment needed for monitoring, control and surveillance procured and operating in DMNP by end of Year 2.</p> <p>Indicator 1.4. Zoning plan for DMNP updated and additional biodiversity hotspots identified using the results of scientific elasmobranch telemetry work (Output 2).</p> <p>Indicator 1.5. MPA Management Effectiveness Assessment completed using standard scorecard method in Year 1 and repeated in Year 3, with results showing an increase by 20% from the baseline.</p>	<p>workshop will be organized in October.</p> <p>Early assessment of the needs and first quotations at this stage.</p> <p>Identification of various options with the WCGA staff and selection of a type of vessel suiting the needs in a country like Sudan. Solicitation of offers completed.</p> <p>Too early, planned during Year 3</p> <p>Initial assessment completed.</p>
<p>Activity 1.1 Community Visioning Workshop (x1) held with a broad group of stakeholders (local community members, businessmen, state and federal government officials), and communications on progress maintained through Output 4.</p>		<p>Progress towards this activity includes identifying key stakeholders who will act as the steering/planning committee for the MPA Visioning Workshop.</p> <p>During the next period (June – November 2015) the planning and preparations for the vision workshop will be completed and the 2-3 day workshop convened.</p>
<p>Activity 1.2 Existing park building in DMNP renovated to act as both a Ranger Station (an office, accommodation, and basic research facilities) and a Visitors Centre to act as the hub for nature-based ecotourism activities</p>		<p>An assessment mission has completed its assessment of the renovation needs and solicited offers from contractors to undertake the renovation.</p> <p>During the coming period (May – July 2015) we plan to contract the selected contractor and complete the renovation works.</p>
<p>Activity 1.3. Procure two small vessels and other equipment needed for monitoring, control and surveillance in existing 2 MPAs, and facilitate related trainings (skipper licence and permits).</p>		<p>(Report completed or progress on activities that contribute toward achieving this output), and what will be carried out in the next period</p> <p>Agreement around specifications with the key partner WCGA and solicitation of offers has been completed.</p> <p>During the coming period (May – July 2015) the two equipped vessels will be procured.</p>
<p>Activity 1.4. Update zoning plan for DMNP on the basis of the community visioning workshop and scientific surveys and identify key biodiversity hotspots for consideration as new MPAs for inclusion in MPA Network.</p>		<p>Too early, planned for the end of Year 3.</p>
<p>Activity 1.5. Meeting with WCGA Officers at the start and end of the project to complete MPA Management Effectiveness Assessments (using WWF-World Bank Scorecard</p>		<p>Initial assessment performed.</p>

method or equivalent).		
<b>Output 2. Scientific knowledge about marine biodiversity and flagship species is increased and national capacity for monitoring is strengthened by training in scientific and participatory monitoring methods, generating data for use in biodiversity planning and management.</b>	Indicator 2.1. Acoustic monitors procured and shipped to Sudan and deployed in-water in Year 1 and maintained through Year 3. Focal species tagged in Year 1 and 2	Lithium batteries shipped to Sudan and new acoustic equipment procured.
	Indicator 2.2. Data derived on spatial movement patterns of key elasmobranch species	Too early, planned for Years 2 and 3
	Indicator 2.3. 3 x Sudanese students trained and participating in telemetry fieldwork to generate data on the spatial ecology of focal elasmobranchs in Year 1, 2 and 3.	Too early, planned for Years 2 and 3
	Indicator 2.4. Elasmobranch telemetry data collated and analysed annually (after each field survey) and report summarising results prepared in Year 3, and shared with relevant government stakeholders.	Too early, planned for Years 2 and 3
	Indicator 2.5. At least 50% of dive operators (5 out of the 10 companies) currently operating in Sudan reporting daily results to Divers Aware of Sharks (DAS) monitoring programme by end of Year 1 and continuing through to Year 3.	Established and successful. See report from the Master Sudan.
	Indicator 2.6. Sudanese staff member regularly liaising with dive operators and collecting DAS results.	Staff recruited and still trained.
	Indicator 2.7. 4 x WCGA Officers / Students trained and qualified SCUBA divers by the end of Year 1 and able to participate in monitoring surveys in Year 2 and 3.	Trainees identified, will happen during fiscal year 2
	Indicator 2.8. 4 x Sudanese nationals trained in Year 1 and able to implement coral reef monitoring surveys by end of Year 3.	Potential trainees partially identified, will happen during fiscal year 2.
	Indicator 2.9. Coral reef monitoring data collated and analysed annually (after each field survey) and report summarising results prepared by Year 3 and shared with	Too early.

	relevant government stakeholders. Indicator 2.10. Geodatabase populated with existing and new datasets.	Too early.
Activity 2.1 Acoustic telemetry equipment procured and shipped to Sudan and deployed in-water in Year 1 and maintained through Year 3. Focal species tagged in Year 1 and 2.		<ul style="list-style-type: none"> <li>- Import of batteries for bottom monitors</li> <li>- Recovery and storage of VR2W monitors deployed on Sudanese offshore reefs including Sanganeb Marine Protected Area.</li> </ul>
Activity 2.2 Data derived on spatial movement patterns of key elasmobranch species.		Too early, delay because of security issues.
Activity 2.3. Organizing the training of Sudanese partners in telemetry field methods for elasmobranchs (x 3)		Linked to the field work, this activity has been delayed and will require that the issue with the HAK and security is solved.
Activity 2.5. Organizing the training of Sudanese staff member to liaise with regional dive industry over Divers Aware of Sharks monitoring project		Staff identified and training currently happening.
Activity 2.6. Data compilation, analysis and reporting of DAS monitoring surveys.		Partly done, A master thesis of a student of the University of Cardiff summarized key findings.
Activity 2.7 Identifying suitable candidates and organising the training of WCGA Officers / students in SCUBA diving		Training provider identified. Candidates to participate in the training have also been identified. Training planned to take place in May/June 2015.
Activity 2.8 Organizing the training of Sudanese partners in coral reef monitoring survey methods (Cousteau Divers, Reef Check) and field surveys (x 3) to implement monitoring.		Due to happen in Year 2
Activity 2.9. Data compilation, analysis and reporting of coral reef monitoring surveys.		Too early, scheduled in year 2
Activity 2.10. Preparation of geodatabase to consolidate existing and new monitoring datasets (e.g. DAS data, telemetry data, coral reef monitoring etc), and satellite derived environmental characteristics (e.g. sea surface temperature, chlorophyll) providing the basis for spatial planning and re-zoning of DMNP.		Too early, scheduled in year 2
<b>Output 3. Livelihood diversification and improved socio-economic resilience of the communities of Mohammed Qol and Dugonab achieved through providing access to micro-finance to support alternative sustainable IGAs, with a particular focus on IGAs associated with the dive industry, leading to an increased understanding of the economic value and benefits of healthy marine ecosystems.</b>	<p>Indicator 3.1. Two Community-Based Microfinance Committees established for communities living inside DMNP (Dugonab and Mohammed Qol), results in increased self-employment in nature-based livelihood activities and generate revenue in both Dugonab and Mohammed Qol coastal villages.</p> <p>Indicator 3.2. Gender-balanced business plans for nature-based ecotourism livelihood opportunities prepared by the end of Year 1.</p> <p>Indicator 3.3. Ecotourism guidelines developed and training provided to 10 x dive operators and 10 x local community representatives by end of Year 1.</p>	<p>The livelihoods assessment that was carried out in early Jan/Feb 2015 represents a first step in the project tackling issues related to poverty alleviation. During the fieldwork the two park communities (Mohamed Qol and Dugonab) and their traditional leaders discussed thoroughly the challenges and difficulties facing their livelihoods. The discussions identified a number of areas where the project may be supportive and contribute to poverty alleviation.</p> <p>This activity has been completed by Sudia as part of the coastal livelihoods assessment and a number of IGA products that are nature-based and eco-friendly were identified during the field visit in Jan/Feb 2015. The report is being prepared.</p> <p>Too early at this stage</p>

	<p>Indicator 3.4. 2 x Community Based Microfinance Committees (CB-MFC) established by end of Year 1 (1 x Dungonab CB-MFC and 1 x Mohammed Qol CB-MFC) and fully operational by end of Year 3.</p> <p>Indicator 3.5. 2 x CB-MFCs trained in business skills (book-keeping, planning and financial management, marketing and quality control, legal issues) in Year 2, with follow on support to help implement nature-based ecotourism activities by end of Year 3.</p> <p>Indicator 3.6. Documented evidence that the support provided by local banks and MF providers is generating self-employment in Dugonab and Mohammed Qol.</p> <p>Indicator 3.7. Monitoring of repayments demonstrates the support provided to the 2 x CB-MFCs is effective starting in Year 2 and continuing through Year 3.</p> <p>Indicator 3.8. Livelihood impact Assessment in the two communities of Dungonab and Mohamed Qol at the end of year 3.</p> <p>Indicator 3.9. By the end of year 3, survey of tourism operators to monitor the development of community based coastal activities. Monitoring of the number of tourists involved in income generating activities (village tour, sea tours on a traditional fishing boat, overnight stays in local style guest houses, camel tours, etc.)</p>	<p>Community leaders met and have been requested to organize gender balanced committees. The members are still being identified</p> <p>Too early</p> <p>Too early</p> <p>Too early (Year 2 and 3)</p> <p>Too early (Year 3)</p> <p>Too early (Year 3)</p>
<p>Activity 3.1 Field visit to refine outcomes from previously completed coastal livelihood assessment in the two villages in DBMP (Mohammed Qol and Dungonab)</p>		<p>Field visit and updated livelihoods assessment completed.</p>
<p>Activity 3.2. Prepare business plans for nature-based ecotourism livelihood opportunities that are both equitable and gender balanced.</p>		<p>Preparatory set of IGA products (business plans) have been prepared.</p>
<p>Activity 3.3 Organize the training of WCGA rangers, dive operators and local community representatives on ecotourism guidelines.</p>		<p>Ecotourism guidelines adapted to Sudanese Red Sea context are being prepared by Cousteau in English and Arabic</p>
<p>Activity 3.4 Establish 2 x Community-based Microfinance Committees (CB-MFCs), one in Dungonab and the other in Mohammed Qol.</p>		<p>Scheduled for last quarter of 2015</p>

Activity 3.5 2 x CB-MFC trained in business skills (book-keeping, planning and financial management, marketing and quality control, legal issues) in Year 2.	Scheduled for last quarter of 2015
Activity 3.6 Establish and maintain linkages with local banks and MF providers to support self-employment and income generation activities among park population	Linkages have been established with two microfinance providers in Red Sea State.
Activity 3.7 Provision of support to the 2 x CB-MFCs and monitoring of performance, to ensure repayment and reporting conditions are met.	Too early
Activity 3.8. Livelihood impact Assessment in the two communities of Dungonab and Mohamed Qol	Too early
<p><b>Output 4. Increased awareness of the globally significant marine biodiversity and flagship species found in Sudan's Red Sea among a broad range of national, regional and international stakeholders.</b></p>	<p>Indicator 4.1. Sudanese Project Coordinator recruited in Year 1, leading day-to-day implementation of project activities through to Year 3.</p> <p>Indicator 4.2. Project Steering Committee (existing), composed of representatives of key partner organisations, support the implementation of the Darwin Initiative project helping to monitor progress and delivery from Year 1 to Year 3.</p> <p>Indicator 4.3. Bi-annual Darwin reports summarising project findings and reporting on progress and delivery of project outputs.</p> <p>Indicator 4.4. Annual Stakeholder Workshop participant lists and feedback forms (x3).</p> <p>Indicator 4.5. 500 x Poster about the project produced in Year 2 distributed to tourist establishments, dive operators, schools and other Red Sea State government departments by the end of the project.</p> <p>Indicator 4.6. At least two peer-reviewed paper submitted to a peer-reviewed scientific journal by the end of Year 3; Results presented at one or more international scientific conferences by the end of Year 3;</p> <p>Indicator 4.7. Number of press releases to national radio, newspapers and TV in Sudan, UK and internationally in Year 1, 2 and 3.</p>

	Indicator 4.8. Project website established and accessible online by end of Year 1 with regular updates broadcast through other forms of social media (e.g. Facebook, Twitter) in Year 2 and 3.	Technical specification for the web site established and a service provider identified in Dubai for a web site in English and Arabic.
Activity 4.1	Sudanese staff recruited and trained to lead day-to-day project activities and communications with stakeholders.	Completed.
Activity 4.2.	Bi-annual Project Steering Committee meetings for Darwin Project to discuss project progress and monitor delivery.	One meeting held in Port Sudan with the WCGA officers and another one in Khartoum office.
Activity 4.3	Preparation of bi-annual Darwin Initiative Project reports.	First bi-annual report completed
Activity 4.4	Annual Stakeholder Workshops held with a broad group of stakeholders to keep them up to date on Darwin Initiative project findings (x3)	Scheduled in October 2015
Activity 4.5	Prepare a poster in Arabic and English summarising key project outcomes for distribution to dive operators and other organisations in Red Sea State of Sudan.	The poster will be done during Year 2, but meanwhile a leaflet in English and Arabic has been produced
Activity 4.6.	Prepare scientific paper(s) for submission to peer-reviewed journals and present findings at international conference.	Too early, but team member Nigel Hussey published a short correspondence in the scientific journal Nature in October 2014
Activity 4.7	Contribute to prepare media statements and popular articles in English and Arabic to communicate interesting findings/actions to national, regional, and international newspapers and TV.	One press release, one radio interview.(local)
Activity 4.8	Contribute to the preparation of dedicated project website to disseminate project news/results, and broadcast updates using social media (Twitter, Facebook).	Domain names have been registered. Over the coming period the web site will be conceptualized and a web designer/programmer contracted to develop the site.

## Annex 2: LOGICAL FRAMEWORK

### Impact

To rebrand Sudan as a global marine biodiversity hotspot and ecotourism destination, contributing to MDG and biodiversity convention targets, by ensuring local community livelihoods benefit from strengthening in biodiversity management.

### Outcome

To strengthen Sudan's MPA management capacity, increase knowledge and awareness of marine biodiversity and flagship species, and assist two local communities to realise biodiversity benefits through sustainable nature-based livelihoods.

### Measuring outcomes - indicators

Indicator 1	National capacity to effectively manage MPAs, as measured using a standard MPA Management Effectiveness Assessment method (e.g. WWF-World-Bank MPA scorecard or GEF METT equivalent) increases from the baseline score achieved in Year 1 by at least 20% by Year 3.
Indicator 2	Scientific knowledge about marine biodiversity and flagship species is increased and national capacity for monitoring is improved during the course of the project from Year 1 to Year 3.
Indicator 3	Percentage of the 300 households in Dunganab and Mohammed Qol that take up the microfinance initiative, report an improvement in income as a result, increases to a target of 5% of all households in Year 1, 15% of all households in Year 2 and 30% of all households in Year 3.
Indicator 5	Awareness of the globally significant importance and value of marine biodiversity and flagship species in Sudan increased at the local, national, regional and international level by Year 3.

### Verifying outcomes

Indicator 1	<ul style="list-style-type: none"> <li>• Progress updates reported in Darwin Initiative bi-annual reports (x 6) and minutes of Project Steering Committee Meetings (x 3);</li> <li>• Photographs documenting renovation works and new vessels and equipment; National press release about the opening of the Ranger/Visitor Information Centre;</li> <li>• New biodiversity hotspots identified and updated zoning plan for DMNP;</li> <li>• MPA Management Effectiveness Assessment in Year 1 and Year 3.</li> </ul>
Indicator 2	<ul style="list-style-type: none"> <li>• Progress updates reported in Darwin Initiative bi-annual reports (x 6) and minutes of Project Steering Committee Meetings (x 3);</li> <li>• Invoices from the procurement of acoustic tags and monitors;</li> <li>• Data collected from dive operators participating in Divers Aware of Sharks programme entered in database;</li> <li>• Elasmobranch Survey/Telemetry Training Report (incl. training log); Video and photographic records;</li> <li>• Dive certificates of trainees;</li> <li>• Coral Reef Monitoring Report (incl. training log); Video and photographic records;</li> <li>• Geodatabases with results of all monitoring and scientific surveys (e.g. derived telemetry data/coral reef surveys), existing habitat maps and</li> </ul>

	other satellite derived environment variables (temperature, chlorophyll etc);
Indicator 3	<ul style="list-style-type: none"> <li>• Progress updates reported in Darwin Initiative bi-annual reports (x 6);</li> <li>• Minutes of Project Steering Committee Meetings (x 3);</li> <li>• Updated Community Based Livelihood Assessment Report;</li> <li>• Survey assessing impact of IGAs on livelihoods improvement and diversification</li> <li>• Business plans;</li> <li>• 2 x CB-MFCs established;</li> <li>• CB-MFC training participant lists;</li> <li>• Loan portfolio reports showing IGA products disaggregated by gender.</li> </ul>
Indicator 5	<ul style="list-style-type: none"> <li>• 3 x Annual Stakeholder Workshop Reports; Workshop participant lists and feedback forms;</li> <li>• Poster showing project objectives, results and biodiversity hotspots in Sudan Red Sea;</li> <li>• Scientific papers submitted to peer-reviewed journals; Proceedings of international conferences;</li> <li>• All media (newspaper, radio and TV) coverage documented and summarised;</li> <li>• Project webpage hosted on Cousteau website;</li> <li>• Updates to website broadcast through newsfeeds on project partners facebook pages.</li> </ul>

### Outcome risks and important assumptions

Assumption 1	<ul style="list-style-type: none"> <li>• Relationships between Red Sea State government and WCGA remain stable;</li> <li>• Experienced facilitator that is able to manage a broad range of stakeholders and bring them to a common vision;</li> <li>• The park building is in suitable condition for renovation and there is sufficient commitment from WCGA to undertake required work and ensure that the renovated building is maintained and the running costs covered;</li> <li>• Results of the scientific and monitoring surveys collated into a geodatabase and available for use in re-zoning DMNP;</li> <li>• WCGA are interested to learn about MPA Management Effectiveness Assessment methods and to monitor progress.</li> </ul>
Assumption 2	<ul style="list-style-type: none"> <li>• No problems encountered in transporting acoustic telemetry equipment to Sudan;</li> <li>• No significant natural or man-made impacts occur in the study region during the project that impacts the environment and /or prevents the team from undertaking required field work and training;</li> <li>• No significant equipment failures or losses;</li> <li>• Suitable trainees are identified and remain in the same institution at least for the duration of the project;</li> <li>• Commitment and consistency of dive operators participating in DAS surveys and assisting fieldwork operations;</li> <li>• Continued support by WCGA for all fieldwork operations.</li> </ul>
Assumption 3	<ul style="list-style-type: none"> <li>• Community based livelihood assessment identifies viable gender balanced livelihood options;</li> </ul>

	<ul style="list-style-type: none"> <li>• Interest of local community in the proposed CB-MFC and trust established;</li> <li>• Access to loan capital from local banks and/or MFIs operational in Red Sea State successfully facilitated;</li> <li>• Local acceptance of gender equity in the composition of trainees within CB-MFC;</li> <li>• Training and support provided to CB-MFC is sufficient to ensure that participants are able to meet repayment and reporting conditions;</li> <li>• Commitment of dive operators to engage their clients with local community based organisation;</li> <li>• Political situation in Red Sea State remains sufficiently stable and tourist visitor numbers remains stable (or increases);</li> <li>• Socio-cultural and economic environment flexible enough to accommodate change;</li> <li>• Resilience of the local communities considered (capacity to scope with abrupt changes - no more tourism coming because of extreme events).</li> </ul>
Assumption 4	<ul style="list-style-type: none"> <li>• Suitable local project coordinator with relevant skill base and expertise can be found and employed person is committed to the overall goals of the project;</li> <li>• Project Steering Committee (existing) continues to provide guidance and support for the successful implementation of Darwin Initiative project;</li> <li>• Adequate support provided to ensure that a local community representatives and other key stakeholders can all participate in Annual Stakeholder Workshops;</li> <li>• Results of sufficient quality to be of interest to scientific community;</li> <li>• Interesting results and scientific findings from the Darwin Initiative project are clearly communicated to the media and scientific community.</li> </ul>

## Outputs

Output 1	National capacity to effectively manage two existing MPAs in Sudan strengthened through building a common future vision among a wide range of stakeholders, renovating existing infrastructure, procuring new equipment and using the scientific results to update the DMNP zoning plan.
Output 2	Scientific knowledge about marine biodiversity and flagship species is increased and national capacity for monitoring is strengthened by training in scientific and participatory monitoring methods, generating data for use in biodiversity planning and management.
Output 3	Livelihoods of the communities of Mohammed Qol and Dugonab increased. The socio-economic resilience is improved and the understanding of the economic value of healthy ecosystems insured mainly through the shared benefices with the dive industry.
Output 4	Increased awareness of the globally significant marine biodiversity and flagship species found in Sudan's Red Sea among a broad range of national, regional and international stakeholders

## Measuring outputs

Output 1	
Indicator 1.1	Common vision for the future of the MPAs agreed among a broad number of stakeholders by the end of Year 1.
Indicator 1.2	Existing buildings in DMNP renovated and functional as Park Ranger management/science/education base by end of Year 2, and as Visitors Information Centre by end of Year 3.
Indicator 1.3	2 x vessels and other equipment needed for monitoring, control and surveillance procured and operating in DMNP by end of Year 2.
Indicator 1.4	Zoning plan for DMNP updated and additional biodiversity hotspots identified using the results of scientific elasmobranch telemetry work (Output 2).
Indicator 1.5	MPA Management Effectiveness Assessment completed using standard scorecard method in Year 1 and repeated in Year 3, with results showing an increase by 20% from the baseline.

Output 2	
Indicator 2.1	Acoustic monitors procured and shipped to Sudan and deployed in-water in Year 1 and maintained through Year 3. Focal species tagged in Year 1 and 2.
Indicator 2.2	Data derived on spatial movement patterns of key elasmobranch species.
Indicator 2.3	3 x Sudanese students trained and participating in telemetry fieldwork to generate data on the spatial ecology of focal elasmobranchs in Year 1, 2 and 3.
Indicator 2.4	Elasmobranch telemetry data collated and analysed annually (after each field survey) and report summarising results prepared in Year 3, and shared with relevant government stakeholders.
Indicator 2.5	At least 50% of dive operators (5 out of the 10 companies) currently operating in Sudan reporting daily results to Divers Aware of Sharks (DAS) monitoring programme by end of Year 1 and continuing through to Year 3.
Indicator 2.6	Sudanese staff member regularly liaising with dive operators and collecting DAS results.
Indicator 2.7	4 x WCGA Officers / Students trained and qualified SCUBA divers by the end of Year 1 and able to participate in monitoring surveys in Year 2 and 3.
Indicator 2.8	4 x Sudanese nationals trained in Year 1 and able to implement coral reef monitoring surveys by end of Year 3.
Indicator 2.9	Coral reef monitoring data collated and analysed annually (after each field survey) and report summarising results prepared by Year 3 and shared with relevant government stakeholders.
Indicator 2.10	Geodatabase populated with existing and new datasets.

Output 3	
Indicator 3.1	Two Community-Based Microfinance Committees established for communities living inside DMNP (Dungonab and Mohammed Qol), results in increased self-employment in nature-based livelihood activities and generate revenue in both Dungonab and Mohammed Qol coastal villages.
Indicator 3.2	Gender-balanced business plans for nature-based ecotourism livelihood opportunities prepared by the end of Year 1.
Indicator 3.3	Ecotourism guidelines developed and training provided to 10 x dive operators and 10 x local community representatives by end of Year 1.
Indicator 3.4	2 x Community Based Microfinance Committees (CB-MFC) established by end of Year 1 (1 x Dungonab CB-MFC and 1 x Mohammed Qol CB-MFC) and fully operational by end of Year 3.
Indicator 3.5	2 x CB-MFCs trained in business skills (book-keeping, planning and financial management, marketing and quality control, legal issues) in Year 2, with follow on support to help implement nature-based ecotourism activities by end of Year 3.
Indicator 3.6	Documented evidence that the support provided by local banks and MF providers is generating self-employment in Dugonab and Mohammed Qol.
Indicator 3.7	Monitoring of repayments demonstrates the support provided to the 2 x CB-MFCs is effective starting in Year 2 and continuing through Year 3.
Indicator 3.8	Livelihood impact Assessment in the two communities of Dungonab and Mohamed Qol at the end of year 3.
Indicator 3.9	By the end of year 3, survey of tourism operators to monitor the development of community based coastal activities. Monitoring of the number of tourists involved in income generating activities (village tour, sea tours on a traditional fishing boat, overnight stays in local style guest houses, camel tours, etc.)

Output 4	
Indicator 4.1	Sudanese Project Coordinator recruited in Year 1, leading day-to-day implementation of project activities through to Year 3.
Indicator 4.2	Project Steering Committee (existing), composed of representatives of key partner organisations, support the implementation of the Darwin Initiative project helping to monitor progress and delivery from Year 1 to Year 3.
Indicator 4.3	Bi-annual Darwin reports summarising project findings and reporting on progress and delivery of project outputs.
Indicator 4.4	Annual Stakeholder Workshop participant lists and feedback forms (x3).
Indicator 4.5	500 x Poster about the project produced in Year 2 distributed to tourist establishments, dive operators, schools and other Red Sea State government departments by the end of the project.

Indicator 4.6	At least two peer-reviewed paper submitted to a peer-reviewed scientific journal by the end of Year 3; Results presented at one or more international scientific conferences by the end of Year 3;
Indicator 4.7	Number of press releases to national radio, newspapers and TV in Sudan, UK and internationally in Year 1, 2 and 3.
Indicator 4.8	Project website established and accessible online by end of Year 1 with regular updates broadcast through other forms of social media (e.g. Facebook, Twitter) in Year 2 and 3.

### Verifying outputs

Indicator 1	<ul style="list-style-type: none"> <li>• Progress updates for Output 1 documented in Darwin Initiative bi-annual reports (x 6), and minutes of Steering Committee meetings (x6).</li> <li>• Invoices for procurement of materials needed for renovation works;</li> <li>• Invoices for procurement of vessels and other equipment;</li> <li>• Photographs documenting renovation works to park buildings;</li> <li>• National press release about the opening of the Visitors Information Centre.</li> <li>• Photographs of new vessels and equipment;</li> <li>• National press release about the procurement of new vessels.</li> <li>• Map showing new proposed zoning plan for DMNP and biodiversity hotspots.</li> <li>• MPA Management Effectiveness Assessment Scores (x 2).</li> </ul>
Indicator 2	<ul style="list-style-type: none"> <li>• Progress updates for Output 2 documented in Darwin Initiative bi-annual reports (x 6), and minutes of Steering Committee meetings (x6).</li> <li>• Invoices for acoustic monitors and shipping thereof, photographs of them installed underwater.</li> <li>• Elasmobranch scientific survey data entered into geodatabase; Elasmobranch scientific survey video and photographic records;</li> <li>• Log of participants trained in scientific elasmobranch telemetry methods;</li> <li>• Elasmobranch Scientific Survey Report (incl. training);</li> <li>• Record of Sudanese staff liaising with dive operators and collecting Divers Aware of Sharks monitoring data;</li> <li>• DAS data entered into geodatabase; DAS video and photographic records;</li> <li>• Scuba diving certificate for WCGA staff / students</li> <li>• Log of participants trained in coral reef monitoring methods;</li> <li>• Coral reef monitoring data entered into geodatabase; Coral reef video and photographic records;</li> <li>• Coral Reef Monitoring Report (incl. training log);</li> <li>• Geodatabase with results of monitoring survey data (e.g. derived telemetry data/coral reef surveys), existing habitat maps and other satellite derived environment variables (temperature, chlorophyll etc);</li> </ul>
Indicator 3	<ul style="list-style-type: none"> <li>• Progress updates for Output 3 documented in Darwin Initiative bi-annual reports (x 6), and minutes of Steering Committee meetings (x3).</li> </ul>

	<ul style="list-style-type: none"> <li>• Updated Community Based Livelihood Assessment Report</li> <li>• Survey assessing impact of IGAs on livelihoods improvement and diversification</li> <li>• Loan portfolio reports showing IGA products disaggregated by gender</li> <li>• 2 business plans for nature based livelihoods associated with manta rays</li> <li>• Ecotourism guidelines and associated materials;</li> <li>• Log of participants trained in ecotourism, hospitality and customer care.</li> <li>• 2 x CB-MFCs Annual Activities Reports (x3)</li> <li>• All financial support facilitated from local banks documented.</li> <li>• CB-MFC training participant lists</li> <li>• Financial records from 2 x CB-MFCs</li> <li>• Dive industry economic evaluation study report and manuscript submitted to peer reviewed journal.</li> </ul>
Indicator 4	<ul style="list-style-type: none"> <li>• Progress updates for Output 4 documented in Darwin Initiative bi-annual reports (x 6), and minutes of Steering Committee meetings (x6).</li> <li>• Contract and ToRs of the Coordinator;</li> <li>• Activities Reports from Local Coordinator (x6);</li> <li>• 3 x Stakeholder Workshop Reports; Workshop participant lists</li> <li>• Number of posters distributed and organisations distributed too recorded.</li> <li>• All media (newspaper, radio and TV) coverage documented and summarised.</li> <li>• Scientific paper(s) submitted to peer-reviewed journals;</li> <li>• Proceedings of international conferences.</li> <li>• Project webpage hosted on Cousteau website;</li> <li>• Website updates broadcast through newsfeeds on project partners facebook pages, twitter.</li> </ul>

### Output risks and important assumptions

Assumption 1	<p>1.1 Experienced facilitator for the visioning workshop who is able to work with a diverse range of different stakeholders and bring them to a common vision.</p> <p>1.2 WCGA rangers and officers willing and able to undertake needed renovation works. Running costs of the building ensured.</p> <p>1.3 Proper sea skills trainings can be provided locally (motor boats permits and safety at sea). Capacity to maintain the vessels ensured.</p> <p>1.4 Data from scientific surveys collated and catalogued into geodatabase in a timely manner to enable zoning plans to be updated.</p> <p>1.5 MPA Management Effectiveness Assessments are completed in through discussions with WCGA officers, and the persons involved remain in the same institution at least for the duration of the project.</p>
Assumption 2	<p>2.1 No logistical problems encountered with transporting the equipment to Sudan</p> <p>2.2 Able to recover monitors and no failures in the equipment</p> <p>2.3 Able to recover monitors and no failures in the equipment</p> <p>2.4 Suitable candidates are identified for the elasmobranch scientific telemetry training and remain in the same institution at least for the duration of the project</p>

	<p>2.2 Staff member employed is approachable and good at outreach work</p> <p>2.3 Commitment and consistency of participating dive operators.</p> <p>2.7 Suitable candidates are identified for the dive training (able to swim and snorkel competently and keen to learn).</p> <p>2.8 Suitable candidates are identified for the coral reef monitoring training and remain in the same institution at least for the duration of the project</p> <p>2.9 Results of the scientific and monitoring surveys collated into a geodatabase and available for use in re-zoning DMNP and identifying biodiversity hotspots for long-ranging species.</p>
Assumption 3	<p>3.1 Socio-cultural and economic environment flexible enough to accommodate change.</p> <p>3.2 Resilience of the local communities considered (capacity to scope with abrupt changes - no more tourism coming because of extreme events).</p> <p>3.3 Local interest in the development of eco-tourism initiatives, socio-political stability ensured.</p> <p>3.4 Local interest in establishing CB-MFC, trust established and participants stay committed to this goal.</p> <p>3.5 Local acceptance of gender equity in the composition of trainees.</p> <p>3.6 Access to loan capital successfully facilitated from local banks and/or MFIs operational in Red Sea State.</p> <p>3.7 Local acceptance and understanding of the purposes and governance of the MFI</p> <p>3.8 Support provided is sufficient to ensure that repayment and reporting conditions are met.</p>
Assumption 4	<p>4.1 Suitable local project coordinator with relevant skill base and expertise can be found and employed person is committed to the overall goals of the project.</p> <p>4.2 Project Steering Committee (existing) continues to provide guidance and support for the successful implementation of Darwin Initiative project</p> <p>4.3 No disturbance to project activities due to political unrest.</p> <p>4.4 Support provided to ensure that local communities can participate in Annual Stakeholder Workshops;</p> <p>4.5 Poster is informative and translated into Arabic, and people display in their respective establishments.</p> <p>4.6 Results of sufficient quality to be of interest to the broader scientific community.</p> <p>4.7 Interesting results and scientific findings from the Darwin Initiative project are clearly communicated to the media and scientific community.</p> <p>4.8 Web-pages are translated into Arabic to make them accessible to the local community and Red Sea region.</p>

## Activities

Output 1	
Activity 1.1	Community Visioning Workshop (x1) held with a broad group of stakeholders (local community members, businessmen, state and federal government officials), and communications on progress maintained through Output 4.
Activity 1.2	Existing park building in DMNP renovated to act as both a Ranger Station (an office, accommodation, and basic research facilities) and a Visitors Centre to act as the hub for nature-based ecotourism activities.
Activity 1.3	Procure two small vessels and other equipment needed for monitoring, control and surveillance in existing 2 MPAs, and facilitate related training (skipper licence and permits).
Activity 1.4	Update zoning plan for DMNP on the basis of the community visioning workshop and scientific surveys and identify key biodiversity hotspots for consideration as new MPAs for inclusion in MPA Network.
Activity 1.5	Meeting with WCGA Officers at the start and end of the project to complete MPA Management Effectiveness Assessments (using WWF-World Bank Scorecard method or equivalent).

Output 2	
Activity 2.1	Acoustic monitor array deployment inside DMNP and Sanganeb MPA and flagship elasmobranch species tagged.
Activity 2.2	Continuous data derived on spatial movements, residency, home-range and migration patterns of focal flagship elasmobranch species through telemetry techniques.
Activity 2.3	Training of Sudanese partners in telemetry field methods for elasmobranchs (x 3), telemetry array maintenance and data download and organisation.
Activity 2.4	Data compilation, analysis and reporting of elasmobranch movement data (telemetry).
Activity 2.5	Training of Sudanese staff member to liaise with regional dive industry over Divers Aware of Sharks monitoring project.
Activity 2.6	Data compilation, analysis and reporting of DAS monitoring surveys.
Activity 2.7	Training of WCGA Officers / students in SCUBA diving.
Activity 2.8	Training of Sudanese partners in coral reef monitoring survey methods (Cousteau Divers, Reef Check) and field surveys (x 3) to implement monitoring.
Activity 2.9	Data compilation, analysis and reporting of coral reef monitoring surveys.
Activity 2.10	Preparation of geodatabase to consolidate existing and new monitoring datasets (e.g. DAS data, telemetry data, coral reef monitoring etc), and satellite derived environmental characteristics (e.g. sea surface temperature, chlorophyll) providing the basis for spatial planning and re-zoning of DMNP.

Output 3	
Activity 3.1	Field visit to refine outcomes from previously completed coastal livelihood assessment in the two villages in DBMP (Mohammed Qol and Dungonab).
Activity 3.2	Prepare business plans for nature-based ecotourism livelihood opportunities that are both equitable and gender balanced.
Activity 3.3	Develop ecotourism guidelines and deliver training to familiarise WCGA rangers, dive operators and local community representatives with guidelines.
Activity 3.4	Establish 2 x Community-based Microfinance Committees (CB-MFCs), one in Dungonab and the other in Mohammed Qol.
Activity 3.5	2 x CB-MFC trained in business skills (book-keeping, planning and financial management, marketing and quality control, legal issues) in Year 2.
Activity 3.6	Establish and maintain linkages with local banks and MF providers to support self-employment and income generation activities among park population for Dungonab and Mohammed Qol.
Activity 3.7	Provision of support to the 2 x CB-MFCs and monitoring of performance, to ensure repayment and reporting conditions are met.
Activity 3.8	Livelihood impact Assessment in the two communities of Dungonab and Mohamed Qol

Output 4	
Activity 4.1	Sudanese staff recruited and trained to lead day-to-day project activities and communications with stakeholders.
Activity 4.2	Bi-annual Project Steering Committee meetings for Darwin Project to discuss project progress and monitor delivery.
Activity 4.3	Preparation of bi-annual Darwin Initiative Project reports.
Activity 4.4	Annual Stakeholder Workshops held with a broad group of stakeholders to keep them up to date on Darwin Initiative project findings (x3).
Activity 4.5	Prepare a poster summarising key project outcomes for distribution to dive operators and other organisations in Red Sea State of Sudan.
Activity 4.6	Prepare scientific paper(s) for submission to peer-reviewed journals and present findings at international conference.
Activity 4.7	Prepare media statements and popular articles to communicate interesting findings/actions to national, regional, and international newspapers, radio and TV.
Activity 4.8	Prepare dedicated project website to disseminate project news/results, and broadcast updates using social media (Twitter, Facebook).

### Annex 3 Standard Measures

Note : the indicators presented in table 1 consider the April to April fiscal year. Since Defra as accepted our delay and 6 months no cost extension, from a project implementation point of view, the second half of the year would be during Q1 and Q2 of the fiscal year 2. This explain several “zero” scorings.

**Table 1 Project Standard Output Measures**

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
<b>TRAINING MEASURES</b>								
2	Number of people to attain Masters qualification (MSc, MPhil etc.)	Male	UK	1				1
3	Number of people to attain other qualifications (e.g. Not standard measures 1 or 2 above) *	Not yet identified		0				4
4A	Number of undergraduate students to receive training *	Not yet identified		0				4
4B	Number of training weeks to be provided							1
4C	Number of postgraduate students to receive training *							5
4D	Number of training weeks to be provided							1
6 A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *	Not yet identified		0				20
6B	Number of training weeks to be provided							2
7	Number of (e.g., different types - not volume - of material produced) training materials to be produced for use by host country			2				4
<b>RESEARCH MEASURES</b>								
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country			1				2
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording			2				2
11A	Number of papers to be published in peer reviewed journals			0				2
11B	Number of papers to be submitted to peer reviewed journals							
12 A	Number of computer based databases to be <b>established</b> and handed over to the host country			0				1

12B	Number of computer based databases to be <b>enhanced</b> and handed over to the host country							1
13 A	Number of species reference collections to be <b>established</b> and handed over to the host country(ies)			0				1
13 B	Number of species reference collections to be <b>enhanced</b> and handed over to the host country(ies)			0				1
<b>DISSEMINATION MEASURES</b>								
14A	Number of conferences/seminars/workshops to be <b>organised</b> to present/disseminate findings			0				4
14B	Number of conferences/seminars/workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.			1				3
<b>PHYSICAL MEASURES</b>								
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)			0				26 885
21	Number of permanent educational/training/research facilities, structures, or organisations to be established and then continued after Darwin funding has ceased			0				1
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased			0				20
<b>FINANCIAL MEASURES</b>								
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work							254 824

**Table 2 Publications**

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. website link or publisher)
Sharks and Rays of Sudan. A conservation and management programme benefiting local communities*	Leaflet in Arabic and English	Noémie Stroh, Nigel Hussey, Abdel Rahman El Mahdi, Rebecca Klaus. 2015	Female	French	Pixels Advertising (Abu Dhabi)	<a href="http://www.cousteau.org/fr/wp-content/uploads/2014/06/flyer-english.pdf">http://www.cousteau.org/fr/wp-content/uploads/2014/06/flyer-english.pdf</a> <a href="http://www.cousteau.org/fr/wp-content/uploads/2014/06/flyer-arabic.pdf">http://www.cousteau.org/fr/wp-content/uploads/2014/06/flyer-arabic.pdf</a>
EBSA area N°23: Area No. 23: Sanganeb Atoll/Shā'ab Rumi*	Report to CBD / CMS	Dirar Nasr, Tarik Chekchak, Rebecca Klaus, Nigel Hussey. 2015	Male	Sudanese	Technical report to the CBD	Not yet available online, could be sent by email. <a href="http://www.cbd.int/ebsa/">http://www.cbd.int/ebsa/</a>
EBSA area N° 24 : Dugonab Bay/Mukawar Island Area*	Report to CBD / CMS	Dirar Nasr, Tarik Chekchak, Rebecca Klaus, Nigel Hussey. 2015	Male	Sudanese	Technical report to the CBD	Not yet available online, could be sent by email. <a href="http://www.cbd.int/ebsa/">http://www.cbd.int/ebsa/</a>
Does the Sudanese coast have a high diversity and abundance of Red Sea Elasmobranch species?*	Master thesis	Nicolas Poole. 2015	Male	English	CARDIFF University, UK	Still a draft.

**Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

## Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	X
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	x
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	no
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	