



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31st October 2017)

Project reference	21-019
Project title	Strengthening marine protected areas and marine ecotourism benefits in Sudan.
Country(ies)/territory(ies)	Sudan
Lead organisation	Equipe Cousteau
Partner(s)	Wildlife General Conservation Administration; Sudan Development Initiative (SUDIA)
Project leader	£ 300,000
Report date and number (e.g., HYR3)	01 st April 2017-31 st September 2017 Half Year Report 4 (AR4) Note: Defra accepted (4 th November 2014) a no-cost extension of 6 months extending the final deadline until 30 th September 2017. A second no-cost extension request was submitted and accepted by Defra (12 th April 2017). The project end date is now 31 st March 2018.
Project website/blog/social media etc.	Website: http://sudanmarineparks.info http://www.cousteau.org/projects/protect-sharks-and-rays-of-the-red-sea/ Facebook: @sudanmarineparks Twitter: @sudanmarinepark Instagram: sudan_marineparks Email: info@sudanmarineparks.info Hashtag: #Sudanmarineparks

1. Outline progress over the last 6 months (April – Sept) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up to end September).

The following report describes progress on the Darwin Initiative project “Strengthening marine protected areas and marine ecotourism benefits in Sudan” from April 2017 to September 2017. The first part of this report provides a narrative summary describing some of the key achievements during the past 6 months. The second part of the report provides more detail on progress with regards to the specific activities.

The successful inscription of the Sudanese marine protected areas as a UNESCO World Heritage serial site, which is one of the major outcomes that the project has helped to achieve, has continued to influence the focus of our activities over the past year. The new status has not removed the challenge the team has had in terms of gaining security clearance to access to the site. Indeed, we are not alone in these challenges as now others are also experiencing similar difficulties in deploying personnel to the site, including the Sudanese National Committee to UNESCO Man and Biosphere Reserves Programme. As a result, the DI project team has continued to focus their efforts on other activities, including communications and awareness raising, as well as the delivery of additional equipment and training plans to support WCGA in their efforts to manage the marine national parks.

During this reporting period, SUDIA with the support of Cousteau prepared and revised the Communications and Awareness Campaign Proposal to expand awareness and outreach

efforts. SUDIA held meetings with key organizations/institutions dedicated to the protection and conservation of Sudan's Marine National Parks, which included UN Agencies, government institutions, NGOs, universities and private sector. A total of 16 campaign partnerships were established (two still awaiting a final agreement). These meetings led to the formation of a Multi-Sector Advisory Committee to act as a consultative body for the Communications and Awareness Campaign.

Concerted efforts were made to increase the online visibility of the Sudan Marine Parks social media content. There are now 492 followers on Facebook and SUDIA also began building the Sudan Marine Parks mailing list with so far over 569 subscribers.

The poster exhibit reported on in AR3, entitled '*The Outstanding Universal Value of the Red Sea Coast of Sudan: Celebrating a Newly Declared UNESCO World Heritage Site*' has been displayed at a number of events. SUDIA has also expanded this exhibit and created a new larger exhibit entitled the "Sudan Red Sea - DID YOU KNOW?" exhibit which was first shown at the French Cultural Institute from 17 September -11 October 2017. Over 150 people attended the opening night of the exhibit and over 600 people visited the exhibit in total.

Cousteau supported the participation of two children from Dugonab village, in a high-level special event held on June 8 2017, on World Oceans Day as part of the "Oceans Conference" at the United Nations General Assembly in New York, USA. The two children represented Sudan's Marine World Heritage Site during 'The Ocean Pledge', which was organised by UNESCO World Heritage Centre. Sudan's participation at this event was made possible through the direct support provided by the Cousteau Society, and coordinated efforts of Cousteau, Red Sea University, local community leaders (Omda), UNESCO Khartoum, NATCOM/MAB National Committee, SUDIA and UNESCO World Heritage Centre to organise the visas, travel, and accommodation for the boys and their chaperone.

During this reporting period, Cousteau organised the procurement of additional safety and surveillance equipment for the MPA staff at the WCGA in the Red Sea State. Cousteau has also been organising additional training for the rangers in the Red Sea State. SUDIA assisted by contacting the naval school in Port Sudan to request a quotation for a training in boat and navigational skills. Cousteau also prepared a draft term of reference for a formal MPA ranger training course that they circulated to specialised organisations able to deliver an intensive training course to increase the capacity of WCGA in effectively managing the Marine Protected Areas in Sudan.

SUDIA and Cousteau also helped support the WCGA by re-designing 26 locational signs, to indicate village and place names within the park. The signs were prepared in both Arabic and English and included the newly created Sudan Marine Parks Logo. The signs are now being reprinted and will be installed by WCGA. In addition to this, designs have also been prepared for the entrance signs for the parks. Four entrance sign designs have been developed and are being reviewed. SUDIA is also currently working on the designs for information sign boards, along with preparing poster and leaflets for use during the communication campaign.

Following is a more detailed report on progress with regards to the specific activities:

Output 1:

The following provides an update on progress on the activities under Output 1 between April 2017 and September 2017.

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.

The situation with regards to the visioning workshop remains unchanged since AR3.

The project team has continued to have meetings to collaborate with both national and international partners to continue discussions and coordinate activities. These have included meetings between international partners (e.g. meeting at the Arab Regional World Heritage Centre in Bahrain in May 2017, and 21-019 Output 4.4_03).

Please also refer to Activity 4.4 for information on the formation of a Multi-Sector Advisory Committee to act as a consultative body for the Communications and Awareness Campaign.

(See **21-019 Output 4.4_03** for Advisory Committee Members list.)

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.

As reported in October 2016, the project manager Tarik Chekchak met the new director of WCGA. The new Director requested that the DI project consider reallocating the budget for the renovation works to cover capital cost investments in surveillance, safety and communication equipment (e.g. life jackets, first aid kit, boat box with basic tools and flares, VHF radios, GPS).

The DI project team prepared a fully costed and detailed list of equipment, and discussed and agreed the list in detail with the Director at WCGA and the General Manager for MPAs and agreed. This was also discussed with PERSGA SEM during a recent partnership meeting in Bahrain. During that meeting it was recognised that the WCGA also needed assistance with the preparation of signage for the parks and that they needed more training in ranger's skills in the context of a marine protected area.

During this reporting period the DI project team has assisted WCGA in preparing three types of signage. These include locational signage (place names), entrance signage (welcome signs) and informational signage (posters with maps and information about key features).

Locational Signage

The WCGA prepared locational signage (place names) for Dungonab Bay and Mukkawar Island National Park with funding from the PERSGA project. The signs were printed as banners, which were to be attached to metal sign boards (See **21-019 Ouptut 1.2_02**). There were problems with the signs, both in terms of the design and the English and Arabic translation. During the coordination meeting in Bahrain, Cousteau team were asked by PERSGA to assist WCGA in the redesign and translation of the locational signage. SUDIA and Cousteau helped WCGA to correctly translate and re-design the 26 locational signs (village names and other key sites) to include the newly created Sudan Marine Parks Logo (**Figure 1**). The signs are now being reprinted and will be installed by WCGA.



Figure 1: Final design of the locational signage (see **21-019 Output 1.2_02**).

Entrance Signs

Following research into potential designers, SUDIA requested Iskan Architecture Design to help develop four designs for use as entrance signs for the marine national parks. The architecture firm prepared four sign designs for free and these are now being reviewed. Full costing for the preparation of these signs have been obtained, and it is unlikely that the DI project would be able to fund the construction of these signs. The DI Project team is therefore seeking co-financing from local firms to support the full costs of constructing these signs (See **21-019 Ouptut 1.2_03**).

Information Signboards.

As part of the communication campaign, the DI project team is preparing a poster and leaflet. The poster, which will include a map and key facts about the characteristics of the parks, will also be used as the basis for the information sign boards.

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).

As reported in AR3, one boat was purchased.

As reported above under Activity 1.2, in October 2016, the project manager Tarik Chekchak met the new director of WCGA. The new Director requested that the DI project consider reallocating the budget for the renovation works to cover capital cost investments in surveillance, safety and communication equipment (e.g. life jackets, first aid kit, boat box with basic tools and flares, VHF radios, GPS).

The DI project team prepared a fully costed and detailed list of equipment, and discussed and agreed the list in detail with the Director at WCGA and the General Manager for MPAs and agreed. The equipment list was also discussed with PERSGA SEM, the Director for WCGA in Khartoum and the General Managers for MPAs during the partnership meeting in Bahrain.

The equipment list to be purchased was finalised and the equipment procured following two procedures (see **21-019 Output 1.3_04**). The heavy and hazardous equipment was procured through a local company based in Port Sudan, that placed the order through contacts he works with in Dubai. The smaller items and electronic equipment that were not readily available in Sudan, or were likely to be substantially more expensive were procured in France. Multiple quotes were obtained from different companies to ensure that the best prices were obtained. The first set of equipment was delivered to WCGA on 23rd October 2017 (see Figure 2).

Full details about the equipment purchased is provided in **21-019 Output 1.3_05**.

With regards training, during the current reporting period, SUDIA has obtained quotes on behalf of WCGA for English language training courses from schools in Port Sudan and training courses in boat handling and navigational skills from the Navy School in Port Sudan.

Cousteau prepared a draft term of reference for an intensive formal MPA ranger training course. The term of reference was circulated to specialised organisations known to have the experience to be able to deliver formal ranger training courses **21-019 Output 1.3_06**.

Quotes have now been received from two organisations and they are being reviewed. While the full cost of all of the training courses (English language, boat handling and navigational skills, and formal ranger training) may be beyond the scope of the current project, additional sources of co-financing are being sought.



Figure 2: WCGA Rangers with some of the equipment received on 23rd October 2017.

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.

The WCGA asked for assistance in updating the zoning plan for the whole World Heritage site. A draft of the zoning plan has been completed. The DI project team would like to reallocate a small part of the remaining fieldwork budget to fund staff from the Red Sea University (RSU) and a PhD student to conduct additional consultation work on the final draft zoning plan, as the team do not currently have the security permissions needed for field access.

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).

The situation remains unchanged since AR3. The next assessment will be completed at the start of 2018.

Output 2.

The following provides an update on progress on the activities under Output 2 between April 2017 and September 2017.

Activity 2.1. Acoustic monitor array deployment inside DMNP and Sanganeb MPA and flagship elasmobranch species tagged.

The situation remains unchanged since AR3, see Activity 2.2.

Activity 2.2. Continuous data derived on spatial movements, residency, home range and migration patterns of focal flagship elasmobranch species through telemetry techniques.

Since AR3, the data from 23 of the 33 VRW-2 monitors deployed was successfully downloaded and transferred to the University of Windsor for post-processing and analysis and the monitors deposited at the RSU. There were technical difficulties downloading data from 10 of the monitors so these needed to be shipped back to Canada for repair. The local partner NGO had

difficulties finding a shipping company willing to handle the 10 non-functioning monitors. Eventually they found an agent willing to ship the items and the monitors were eventually received by University of Windsor staff on 18th October 2017.

The University of Windsor staff will now send the monitors for repair. Once these monitors have been repaired and the data recovered from all the monitors, the full dataset will be analysed.

Activity 2.3. Training of Sudanese partners in telemetry field methods for elasmobranchs (x 3), telemetry array maintenance and data download and organisation.

The situation remains unchanged since AR3.

Activity 2.4. Data compilation, analysis and reporting of elasmobranch movement data (telemetry).

The data on manta ray movement patterns that were obtained from the satellite tagged mantas has been analysed. Since AR3, the paper has been accepted for publication in PlosOne. Corrections were addressed over the summer and the paper was finally accepted for publication on 25th October 2017.

As reported above, data from 23 of the 33 VR2W bottom monitors has been downloaded and transferred to the University of Windsor team for post-processing and analysis. The 10 remaining monitors have been sent for repair and once the data has been recovered from all the monitors, and the data analysed another paper will be prepared summarising the findings of the study.

Activity 2.5. Training of Sudanese staff member to liaise with regional dive industry over Divers Aware of Sharks monitoring project.

Since AR3, a dive master from one of the local dive operators and a PhD student from the RSU were tasked with the responsibility for supporting these activities. The dive master had family issues and was unable to return to Sudan. The DI project team has continued to maintain close communications with the dive operators over the past year and has continued to discuss the ecotourism guidelines and the formation of a dive operators association.

Activity 2.6. Data compilation, analysis and reporting of DAS monitoring surveys.

The situation remains unchanged since the AR3.

Activity 2.7. Training of WCGA Officers / students in SCUBA diving.

The situation remains unchanged since the AR3.

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.

The situation remains unchanged since AR3.

Activity 2.9 Data compilation, analysis and reporting of coral reef monitoring surveys.

The situation remains unchanged since AR3.

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.

The situation remains unchanged since AR3.

Output 3.

The following provides an update on progress on the activities under Output 3 between April 2017 and September 2017.

Activity 3.1 Field visit to refine outcomes from previously completed coastal livelihood assessment in the two villages in DBMP (Mohammed Qol and Dungonab).

The situation remains unchanged since AR3.

The report prepared from the DI project was shared with the PERSGA SEM project, in order to encourage collaboration and coordination of livelihood activities inside DMNP.

See report under Activity 3.2.

Activity 3.2 Prepare business plans for nature-based ecotourism livelihood opportunities that are both equitable and gender balanced & Activity 3.2B 4 days training in ecotourism strategy

The situation remains unchanged since AR3. We have still been unable to field our specialist consultant (Dominique Verdugo) who was recruited to assess the potential and to develop business plans for nature-based ecotourism livelihoods.

During the meeting in Bahrain, PERSGA SEM project indicated that it does not currently have sufficient funding to recruit an ecotourism consultant to develop the business plans for the glass bottomed boats they purchased for the villages. They expressed their possible interest to work together with the DI project on this activity.

SUDIA is actively seeking an alternative solution. They have prepared a revised term of reference and requested the assistance of a consultancy firm (UNICONS) to see if they are able to field our specialist ecotourism consultant. The consultancy firm has links to the Ministry of Finance and Investment and the staff have previous experience of working on livelihood related issues in the Red Sea State.

If the above two options fail, the ecotourism consultant will join one of the liveboard dive boats to discuss the activities with the dive operators.

Activity 3.3 Develop ecotourism guidelines and deliver training to familiarise WCGA rangers, dive operators and local community representatives with guidelines.

The DI project team completed the ecotourism guidelines (see **21-019 Output 3.3_05**). Copies of these have now been printed and sent to dive operators in Sudan for further field testing.

Activity 3.4 Support the development of community-based initiatives that deliver collaborative livelihoods and income generating activities (through access to microfinance).

The situation remains unchanged since AR3. See Activity 3.2.

Activity 3.9 Monitoring of the economic value of the dive industry (number of boats and tourists) and tourist numbers engaging in IGAs.

Since the last report AR3, the locally based dive boat (Maria Cristina who operated La Dolce Vita) that ran the first sea/land safari to DMNP in February 2017 has decided to stop operating in Sudan. This is due to the increase in the number of Egyptian safari boats visiting Sudan during the shark season. The increase in the number of safari boats resulted from a change in policy in the Ministry of Tourism and Environment in the Red Sea State, who decided to issue a larger number of permits to Egyptian dive operators last year. This situation potentially poses a serious threat to the future sustainability of the dive sector in Sudan's marine World Heritage site. The Sudanese-based boats tend to anchor away from the dive sites and deploy divers to the sites by small tenders. The Egyptian dive operators tend to anchor directly on top of the dive sites and deploy divers from the back of the boats. This means more anchor damage and the megafauna also tends to be scared off by the increased disturbance of the anchors.

Cousteau prepared a departure survey for divers. A PhD student from the Red Sea University has taken charge of the survey form and will be using the form to collect information from divers as they leave at the airport in Port Sudan. A copy of the survey form being used is provided in **21-019 Output 3.9_01**.

Output 4:

The following provides an update on progress on the activities under Output 4 between April 2017 and September 2017.

Activity 4.1 Sudanese staff recruited and trained to lead day-to-day project activities

and communications with stakeholders.

During the past year, SUDIA has employed two new members of staff, to work on the communication and awareness raising campaign. One staff member left and a new staff member was recruited to assist on the communication campaign.

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

The situation remains unchanged since AR3.

Activity 4.3 Preparation of bi-annual Darwin Initiative Project reports.

This report constitutes the projects fourth half year report (HYR4).

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)

During this reporting period, SUDIA developed a Multi-Sector Advisory Committee to act as a consultative body for the Communications and Awareness Campaign, to ensure that delivery mechanisms, key messages, audiences and awareness material of the Campaign are accurate and effective. The Advisory Committee is comprised of 17 individuals from a wide range of sectors and expertise including , representatives from the Wildlife Conservation General Administration (WCGA), Sudanese National Commission for UNESCO, Marine Environment Protection Society Sudan (MEPSS), Sudanese Environment Conservation Society (SECS), UNESCO Chair of Marine Biology and Oceanography (MBAOUC), Red Sea University, Environment Initiative (Envi), Ministry of Tourism , UN Environment Program (UNEP), Cousteau Society, Fisheries Research Centre and the Ministry of Environment (see **Output 4.4_03** for Advisory Committee Members list).

Activity 4.5 Prepare a poster summarising key project outcomes for distribution to dive operators and other organisations in Red Sea State of Sudan.

The situation remains unchanged since AR3

SUDIA's communication campaign team are currently finalising a new leaflet and poster about the project.

Activity 4.6 Prepare scientific paper(s) for submission to peer-reviewed journals and present findings at international conference.

Since AR3, the third paper has been in PlosOne (see **21-019 Output 4.6_03**) and fourth paper is in preparation. An abstract about the Sudanese Marine National Parks has also been accepted for presentation at the European Coral Reef Symposium in Oxford in December.

A press release has been prepared by the current employer (the Shedd Aquarium) of the lead author (Steve Kessel) to describe the findings from the PlosOne paper as follows:

Press release

The recently published paper in PlosOne focuses on the large reef manta ray (*Manta alfredi*) aggregation in the north Sudanese Red Sea coast that faces potential threats by economic development in the region. The study was intended to answer whether or not the boundaries of the marine protected area (MPA) in the Red Sea were sufficient and aligned with how the rays used the space to congregate, feed, breed and more. After tagging manta rays from the area, researchers monitored how the individual animals travelled throughout the reef, looking to see if their home range fell within the boundaries. The results indicated that the MPA boundaries are spatially appropriate for manta rays in the region, however, it also highlights that a proposed development just 15 km away from main large reef manta ray aggregation sites could potentially threaten to disrupt the population.

The proposal outlines plans for intense development on land (think, international airport and world's tallest skyscraper), but also mass evacuation of the seabed and land reclamation. It could result in large-scale loss of critical habitat, acoustic disturbance and increased pollution, among other impacts. Because anthropogenic disturbances are the largest driver of conservation concerns for species around the world, a group of researchers from Shedd Aquarium, the University of Windsor, the Deep Aquarium and Equipe Cousteau conducted this

multi-year study.

Conversely, the study showed that because the rays show extended presence at the same aggregation sites, there is the potential for reliable, sustainable ecotourism that could bring significant economic benefits to the people currently living inside the boundaries of the MPA, a recently designated UNESCO World Heritage Site.

Reef manta rays are currently listed as Vulnerable under the IUCN Red List and are listed on Appendix II of the Convention on International Trade in Endangered Species. This is primarily as a result of fisheries impacts, as they are targeted for traditional medicine. Unlike the pelagic manta ray (*Manta birostris*), reef manta rays spend much of their time in shallow coastal waters like lagoon areas, making them especially susceptible to other disturbances – like development.



RESEARCH ARTICLE

Conservation of reef manta rays (*Manta alfredi*) in a UNESCO World Heritage Site: Large-scale island development or sustainable tourism?

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OPEN ACCESS

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Abstract

A large reef manta ray (*Manta alfredi*) aggregation has been observed off the north Sudanese Red Sea coast since the 1950s. Sightings have been predominantly within the boundaries of a marine protected area (MPA), which was designated a UNESCO World Heritage Site in July 2016. Contrasting economic development trajectories have been proposed for the area (small-scale ecotourism and large-scale island development). To examine space-use, Wildlife Computers[®] SPOT 5 tags were secured to three manta rays. A two-state switching Bayesian state space model (BSSM), that allowed movement parameters to switch between resident and travelling, was fit to the recorded locations, and 50% and 95% kernel utilization distributions (KUD) home ranges calculated. A total of 682 BSSM locations were recorded between 30 October 2012 and 6 November 2013. Of these, 98.5% fell within the MPA boundaries; 99.5% for manta 1, 91.5% for manta 2, and 100% for manta 3. The BSSM identified that all three mantas were resident during 99% of transmissions, with 50% and 95% KUD home ranges falling mainly within the MPA boundaries. For all three mantas combined (88.4%), and all individuals (manta 1–92.4%, manta 2–64.9%, manta 3–91.9%), the majority of locations occurred within 15 km of the proposed large-scale island development. Results indicated that the MPA boundaries are spatially appropriate for manta rays in the region, however, a close association to the proposed large-scale development highlights the potential threat of disruption. Conversely, the focused nature of spatial use highlights the potential for reliable ecotourism opportunities.

Activity 4.7 Prepare media statements and popular articles to communicate interesting findings/actions to national, regional, and international newspapers and TV.

Since AR3, SUDIA has been refining the Communication Campaign to further consolidate the existing efforts and set out their plans for outreach and awareness raising activities to be completed over the coming year. The initial campaign plan (**21-019 Output 4.7_07**) has been further developed in discussion with the Multi-Sector Advisory Committee referred to under Activity 4.4.

Exhibition 1 “The Outstanding Universal Value of the Red Sea Coast of Sudan: Celebrating a Newly Declared UNESCO Natural World Heritage Site” Exhibit:

The poster exhibit which was prepared by the Cousteau Society and SUDIA, entitled “The Outstanding Universal Value of the Red Sea Coast of Sudan: Celebrating a Newly Declared UNESCO Natural World Heritage Site”, includes photographs from the Cousteau Society archives, from diving tour operators working in Sudan, as well as photographs by Sudanese photographers. The poster exhibit was first displayed at the Corinthia Hotel in Khartoum, Sudan

alongside another scientific event that was being organised by UNESCO. Several different organisations requested the poster exhibit on loan to accompany other events.

During this reporting period SUDIA continued to display the poster exhibit at a number of events, including:

First Marine Environment Protection Conference: The poster exhibit was displayed during the First Marine Environment Protection Conference organized by the Ministry of Environment, Tourism and Wildlife Red Sea State in cooperation with the Maritime Ports Authority and the Red Sea University during 20-22 May in Port Sudan. The exhibit was transported from Khartoum to Port Sudan with the support of the Ministry of Environment, and displayed at the exhibition tent set up on the Corniche in Port Sudan as part of the Conference side activities. To help further awareness efforts and effectiveness, SUDIA trained two local graduates from the Red Sea University to deliver exhibit key facts and messages to visitors. An estimated 300 people visited the exhibition (see **21-019 Output_4.7_08**)

2017 World Environment Day Celebration -I'm with Nature' Environmental Exhibition: The poster exhibit was also displayed at the "I'm with Nature" Environmental Exhibition coordinated by the UNESCO / Cousteau Eco-Technie Chair (UCEC) Sudan as part of the 2017 World Environment Day Celebration on 9-10 August at the Youth and Children Palace in Omdurman. The event included participation from, UNDP, UNEP, UN Volunteers, Ministry of Environment, Ministry of Youth & Sports, Higher Council for Environment and Natural Resources, Sudanese Environment Conservation Society, Sudanese Youth for Environment Conservation, Sudanese Youth for Climate Change, Clean Khartoum Campaign, Green Space, Environment Initiative Organization, Sudanese Biologists, GIAD, Nile Drums, and Future University. The total attendees of the event were estimated to 200 (see **21-019 Output_4.7_09**)



Exhibition 2: Sudan Red Sea DID YOU KNOW? Exhibit

SUDIA has expanded the original poster exhibit to include preserved specimens of marine life, additional pictures of local communities, interactive component (sounds of marine mammals), and a responsible diving display with the support and contributions of newly formed partnerships with Bahri University and the Sudanese Wildlife Society and from dive tour operators and Sudanese photographers from Port Sudan. SUDIA displayed this larger exhibit entitled the Sudan Red Sea DID YOU KNOW? Exhibit at the French Cultural Institute from 17 September -11 October. Over 150 people attended the opening night of the exhibit and over 600 people visited the exhibit in total. Photographs from the exhibit can be seen here:

<https://www.facebook.com/sudia.org/photos/gm.1670938886292115/1669433726461145/?type=3&theater>

Educational Video

The educational video that was prepared over the past year by Cousteau Society has been used as an important tool for stakeholder engagement and has been presented at numerous exhibits, events and meetings during this reporting period, most notably the video was displayed at the Closing Ceremony of the "First Marine Environment Protection Conference", which included the Governor of the Red Sea State, the Federal Minister of Environment, representatives from the Ministry of Oli and Gas and Petrolines company among some of the

attendees. The video was also played during the evening reception at the Explorer's Club in New York during the United Nations World Oceans Day conference. To further increase awareness efforts and outreach, the video has been translated in Arabic and will be edited to include a voiceover key messages.

Sudan's participation in United Nations World Oceans Day

Two children from the local community living in Dunganab village were invited to represent Sudan's Marine World Heritage Site during 'The Ocean Pledge', a high-level special event organised by UNESCO World Heritage held on June 8 2017, at the United Nations General Assembly to celebrate World Oceans Day in New York, USA. Sudan's participation at this event was made possible through the financial support provided by Cousteau Society and the coordinated efforts of the DI project team including Cousteau, Red Sea University, local community leaders (Omda), UNESCO Khartoum, NATCOM/MAB National Committee, SUDIA and UNESCO World Heritage Centre.

The two boys selected to represent Sudan's newly declared Marine World Heritage Site, were Ahmed Esiaeb Gamea, and Mohamed Sadan Danin, aged 14 and 15. They were selected by the local community living in Dunganab and were accompanied by Mr. Hamid Allahasab. This was the boys first time to travel outside of the Red Sea State. While they had been to Port Sudan before and were at first impressed by Khartoum, they subsequently referred to it as a village compared to New York. Both boys were present on stage in the UN General Assembly during the special event as the children from the World Heritages site called upon the members of the General Assembly to join them in making a pledge for the oceans.

More photographs from this event in New York are presented as a separate annex (see **21-019 Output_4.7_10**) The two videos of the ocean pledges made by the boys from Dunganab, before the conference can be viewed here:

<https://www.youtube.com/watch?v=man2rmFxsOI>

<https://www.youtube.com/watch?v=5fxGefsZG0Q>

A compiled video about the "The Ocean Pledge" was released by UNESCO World Heritage and can be viewed here: <http://whc.unesco.org/en/myoceanpledge/>



Figure 3: The two boys from Dugonab preparing for their departure to New York to attend the special event at the UN General Assembly.



Figure 4: The children from the World Heritage sites around the world on stage at the UN General Assembly 8 June 2017 for the special #MyOceanPledge event.

4.8 Prepare dedicated project website to disseminate project news/results, and broadcast updates using social media (Twitter, Facebook).

The situation remains unchanged since AR3.

The project team have made concerted efforts during this reporting period to increase online visibility of the 'Sudan Marine Parks' social media accounts. There are currently 485 followers on Facebook. SUDIA also began building the Sudan Marine Parks mailing list with so far over 569 subscribers. A Social Media Tactical Plan is being developed to create, manage and schedule content on all social media platforms to help reach a wider audience and engage followers to further build awareness. (See **21-019 Output 4.8_03** for Facebook Page Statistic Report).

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

There have been two significant changes in the people in charge of two of the key partner organisations in Sudan during the past 6 months. First there has been a change in the person in top civil servant in charge of the Red Sea State Ministry of Tourism and Environment. Second there has been a change in the Director of Wildlife Conservation Administration at the central administration in Khartoum. Both changes have presented the project with new challenges as the new staff taking these roles and responsibilities are unfamiliar with the project activities to date. As such the project has had attempted to familiarise the new staff with the project's activities, achievements and goals.

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: Yes/No

Formal change request submitted: Yes/No

Received confirmation of change acceptance Yes/No

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document. Additionally, if you were funded under R23 and asked to provide further information by your first half year report, please attach your response as a separate document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with LTS International through a Change Request.

Please send your **completed report by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 22-035 Darwin Half Year Report**