



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No	22-008
Project Title	Diversifying Indonesian fisheries to protect elasmobranchs and alleviate poverty
Country(ies)/Territory(ies)	Indonesia
Lead Organisation	Wildlife Conservation Society – Indonesia Program
Partner(s)	Ministry of Marine Affairs and Fisheries (MMAF), Indonesian National Police – Criminal Investigation Division, Panglima Laot Aceh, KuALA Network, Imperial College London and University of Oxford.
Project Leader	Dr Tom Clements
Report date and number (e.g., HYR3)	HYR2 - October 31 st 2016
Project website/ Twitter/ Blog/ Instagram etc.	programs.wcs.org/Indonesia
Funder (DFID/Defra)	DFID

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).

Note 1: In parallel, under DEFRA-IWT Project 016 and 027, WCS is supporting the Ministry of Environment and Forestry (MoEF, the CITES Management Authority) with efforts to reform the legal and policy framework for terrestrial species and to combat illegal trade for terrestrial species. Achievements for marine species (under MMAF) are reported in this report, and achievements for terrestrial species (under MoEF) are reported in the IWT final report.

Note 2: Progress against activities 4.1 and 5.2 is included in this report. These activities were not originally planned to take place during this reporting period, according to the original implementation timetable, but adaptive adjustments were necessary due to unforeseen opportunities and delays that emerged during the period. Progress under activities 2.3 and 2.4 is not reported, as there was no progress under these activities during the reporting period.

Output 1: Regulations for CITES-listed sharks and mantas have been developed or revised to ensure enhanced legal protection for at least four species

Activity 1.2 Hold meetings to align MMAF's, MoEF's, and LIPI (Scientific Authority) policies on the protection of marine species and implementation of CITES for marine species.

A WCS Marine Policy Officer continued to be based within MMAF in the Directorate of Conservation and Marine Biodiversity to provide immediate and improved technical support regarding marine species protection and management in Indonesia. Through this relationship,

WCS has facilitated and participated in several meetings, workshops and focus group discussions during the reporting period, which brought together MMAF and LIPI to align actions for enhancing legal protection of CITES-listed sharks and rays.

In addition, WCS is currently involved in the process to transfer the CITES authority for aquatic species management to from MoEF to MMAF. Joint discussion, meetings and recommendations were on-going during the reporting period, and WCS developed a synopsis document reviewing the preparation of MMAF to become the CITES management authority, including an analysis of strengths, weaknesses, opportunities and threats. A draft official document for hand over from MoEF to MMAF (Berita Acara Serah Terima, BAST) has also been developed.

Activity 1.3 Hold meetings to strengthen policies and establish the protection status of CITES-listed Indonesian sharks and rays.

Several meetings were held during the reporting period to strengthen policies and protection, particularly regarding the establishment of the Ministerial Regulation about Shark Resource Conservation (see Activity 1.4), the revision of MMAF Ministerial Regulation No.4/2010 regarding procedures of fish utilization and fish genetic resources (see Activity 1.5), and the designation of MMAF as the CITES management authority for aquatic species (as outlined in Activity 1.2). These meetings included: one community focus group discussion in Tanjung Luar, West Nusa Tenggara (May 11th 2016); four public consultations conducted in Mataram, West Nusa Tenggara (May 12, 2016), Denpasar, Bali (May 21st, 2016), Meulaboh, Aceh (June 29th, 2016) and Blang Pidie, Aceh (June 30th, 2016); and, one coordination meeting conducted in Bandung, West Java (October 11th-12th, 2016). The primary purpose of this series of events was to assist MMAF to develop national policies for regulating the use of shark resources, in order to support protection and sustainable management. The meetings aimed to a) gather and disseminate inputs from relevant stakeholders and user groups, from across the country, regarding options for developing national policies to regulate the use of shark resources; b) gain support from various stakeholders and user groups for the establishment of shark protection regulations; c) use the information to provide recommendations to central government on elasmobranch policy development, which can support shark conservation, while also being practically implementable and mitigating negative socio-economic impacts on shark fishing communities; and d) establish a process for introducing and implementing new policies, via a Ministerial Regulation on shark resource conservation.

Information on participants is detailed below:

- Community focus group discussion in Tanjung Luar (May 11th 2016): 30 people attended, including representatives from MMAF, LIPI, WWF-Indonesia, Technical Implementation Unit of MMAF, local government of East Lombok, and shark fishers, processors and traders from Tanjung Luar.
- Public consultation in Mataram (May 12, 2016): 40 people attended, including representatives from MMAF, LIPI, WWF-Indonesia, Technical Implementation Unit of MMAF, government officials of West Nusa Tenggara and East Lombok, Indonesian

National Police in West Nusa Tenggara, quarantine officials, Tanjung Luar landing port officials, Indonesian Navy, Local universities, local NGOs, and representatives of shark fishing groups in Tanjung Luar and Gili Maringkik.

- Public consultation in Denpasar, Bali (May 21st, 2016): 30 people participated, including representatives from MMAF officials, WWF-Indonesia, the Association of Tuna Longline Fishers, Technical Implementation Unit of MMAF and LIPI.
- Public consultation in Meulaboh, Aceh (June 29th, 2016): 36 people participated including representatives from MMAF, WWF-Indonesia, Technical Implementation Unit of MMAF, LIPI, government officials of Aceh Barat Regency, government officials of Aceh Province, and shark fishers.
- Public consultation in Blang Pidie, Aceh (June 30th, 2016): 39 people participated, including MMAF officials, WWF-Indonesia, Technical Implementation Unit of MMAF, LIPI, government officials of Aceh Barat Daya Regency, government officials of Aceh Province and shark fishers.
- Coordination meeting in Bandung, West Java (October 11th-12th, 2016): 28 people participated, including government officials from several directorate generals within MMAF as well as the Legal Bureau, LIPI, and WWF-Indonesia.

Activity 1.4 Facilitate the development of species regulations and policies by MMAF, which identify management actions or changes to trade regulations (e.g. size restrictions).

WCS continued to assess current legal protection for elasmobranchs and provide technical advice to MMAF for the establishment of new regulations. The government is willing to strengthen and implement protection for all shark species, and we have focused on supporting the process to establish a new Ministerial Regulation on Shark Resource Conservation. This new regulation will apply to all shark species in Indonesian waters, and aims to:

1. Prohibit catch of juvenile sharks;
2. Prohibit catch of pregnant sharks;
3. Prohibit catch of sharks in conservation zones (including all marine protected areas);
4. Prohibit finning, by necessitating the landing of whole carcasses;
5. Limit the number of permitted exit ports for shark exports; and
6. Implement CITES through additional species-specific measures.

To assist the policy planning process, WCS prepared a review paper entitled “Synopsis: Policy recommendations for the inclusion of marine species in CITES Appendix II”, which was submitted to the Directorate of Conservation and Marine Biodiversity and MMAF in August 2016 and will act as a policy reference framework.

Activity 1.5 Facilitate changes in the protection status of CITES-listed species, through changes to the national protected species list (PP.7/1999), Ministerial Decrees, or changes to regulations under the fisheries law.

In addition to regulations covering all shark species (as outlined under Activity 1.4), WCS conducted species-specific assessments in the lead up to CoP 17, with a particular focus on *Carcharhinus falciformis* (Silky shark) and *Alopias* spp. (Thresher shark), and the development of a policy brief on *Mobula* spp. to support the proposal to include *Mobula* rays in CITES

appendix II.

Related to this, WCS continued to facilitate the process to revise MMAF Ministerial Regulation No.4/2010 regarding procedures of fish utilization and fish genetic resources to better support CITES implementation for aquatic species. The regulation is being revised to cover utilisation and distribution of protected fish and/or CITES listed species, including specific clauses and articles relating to breeding, exploitation of natural populations, and trade.

Output 2: Local government officials, traders and fishers have sufficient awareness and training in the new regulations and the applied management actions required to adequately manage shark and manta fisheries.

Activity 2.1 Create awareness-raising materials and distribute regulations on CITES-listed shark and ray species in landing areas for sharks and rays. Identify key persons including traditional leaders, village chiefs, and local MMAF officers as frontline leaders to disseminate the materials to fishers, fisheries middlemen, and exporters.

During the reporting period, one focus group discussion and four public consultations were held in several locations in Aceh and West Nusa Tenggara (see Activity 1.3 for details). These events brought together a variety of stakeholders including shark fishers, processors and traders; village-level government officials; MMAF; Coastal and Marine Resources Management Offices; provincial and district-level law enforcement agencies (including police and quarantine); provincial and district-level fisheries departments, research institutions (e.g. LIPI, Mataram University) and NGOs, including WCS and WWF. These events were held to communicate information on regulations and CITES-listed shark and ray species to key stakeholders, and to engage relevant user groups in discussions regarding future policy development.

In addition, WCS, together with Indonesia Nature Film Society (INFIS), World Wildlife Fund (WWF) Indonesia, and Greenpeace Indonesia collaboratively organised a public discussion and movie screening called “Ocean and Us” (<http://inaturefilms.org/launching-documentary-film-ocean-and-us/>). This event was held on May 29th in Jakarta, with more than 150 people participating. News related to this event was appeared in Kompas (the largest Indonesian print newspaper) on May 31st, highlighting the weakness of shark protection in Indonesia (<http://print.kompas.com/baca/sains/lingkungan/2016/05/31/Perlindungan-Hiu-Masih-Lemah>).

Activity 2.2 Initiate regular joint meetings, workshops and training with MMAF local agencies, police, customs agencies to develop and implement regulations on CITES-listed shark and ray species.

With 50/50 co-financing from DEFRA IWT and Darwin, WCS and the Attorney General Taskforce office developed a joint, in-house advanced law enforcement training program for prosecutors, called “*In House Training to Increase Prosecutors Capacity in Handling Wildlife Crime Cases*”, which aims to build prosecutors’ capacity to deal with wildlife crime cases while also raising awareness among prosecutors of the state of wildlife crime in Indonesia. Through this program senior law enforcement officials, wildlife experts, judges, and counter wildlife crime practitioners from NGOs across the country are being brought together to provide enforcement training to public prosecutors. The new program will also become integrated into existing institutional training, and build capacity within our partners to continue delivering this training

program in the long-term, beyond the scope of this project. The first training was carried out in Makassar (South Sulawesi) on August 8-11th, involving 30 prosecutors from Sulawesi, Maluku, Bali, East Nusa Tenggara and West Nusa Tenggara (which includes Tanjung Luar) provinces.

Activity 2.5 Publish and disseminate law enforcement achievements

The law enforcement achievements of Indonesia's Wildlife Crime Unit received significant media attention during the reporting period, with all cases leading to the prosecution of traders being communicated through a range of national and international media outlets, including websites, newspapers, television, radio and social media. A total of 309 articles have been published by the international and national media, including The Guardian, The Daily Mail, Kompas, and DetikNews. WCU cases were featured on 168 news websites, 15 TV news channels, 20 blogs, 1 magazine, 3 online magazines, 2 online videos, 2 social media channels. The major whale shark bust (see Activity 3.2) received particularly significant attention, including an Instagram post by Leonardo DiCaprio about our work, which received 250,000 likes (<https://www.instagram.com/p/BHKwFtjDsWY/?taken-by=leonardodicaprio>).

Example articles:

- Indonesian press:
 - NTT one: <http://www.nttone.com/polda-ntt-amankan-25-set-sisik-penyu-ilegal/>
 - Metro TV News, Jakarta: <http://news.metrotvnews.com/peristiwa/ZkeJr5ZK-hiu-paus-dipelihara-secara-ilegal-dalam-keramba-di-maluku>
 - Tribunnews: <http://www.tribunnews.com/regional/2016/04/07/satwa-dilindungi-jadi-bahan-kosmetik-untuk-dijual-hingga-asia-timur>
 -
- International press:
 - The Guardian: <https://www.theguardian.com/environment/gallery/2016/jun/06/rescued-whale-sharks-released-back-into-the-ocean-in-pictures>
 - National Geographic: <http://news.nationalgeographic.com/2016/06/investigation-whale-sharks-trafficking/>

Output 3: A new “Marine Wildlife Crimes Unit” (marine WCU) has been established and is focusing on high-profile prosecutions of major manta/shark traders.

Activity 3.1 Create informant network to monitor shark and ray trafficking in key areas. Produce an assessment of the current trade networks.

The WCU informant network continues to operate in key shark and ray landing sites in Java, Aceh, Bali, West Nusa Tenggara and East Nusa Tenggara, and in major domestic and international trade hubs including Cilacap, Indramayu, Surabaya, Bali, Lombok, and Sidoarjo.

An overview of the trade network has been developed through compilation and analysis of intelligence data using IBM i2 software, and the assessment of the trade network continues as further information is collected through surveillance of known traders.

Activity 3.2 Provide technical assistance and information for law enforcement officers in intelligence, surveillance, apprehension and processing of evidence.

The WCU continued to provide technical assistance to several law enforcement agencies (including MMAF, the marine police, and the police) in marine wildlife crime investigations and operations. Between April and September 2016 the WCU supported enforcement operations against 10 individuals involved in illegal fishing activity, and 23 traders/smugglers of illegal elasmobranch products. Those apprehended include five bomb fishers; two manta fishers; seven traders of manta ray products; three traders of critically endangered Largetooth Sawfish; and a company involved in illegally obtaining and trading two live whale sharks. The whale shark case was the result of a particularly sophisticated 18-month investigation, supported by the WCU, which resulted in the confiscation and release of two illegally-caught whale sharks, and the arrest of the company owner in May 2016. MMAF won the pre-trial against the whale shark suspect in August 2016, and the MMAF Civil Investigator is continuing investigations and finalisation of legal documentation. MMAF also continues to pursue a second company owner also thought to be involved in the case.

Evidence was successful seized in all cases, and has been or is currently being processed for use in legal cases (see further information under Activity 3.3).

Activity 3.3 Assist the law enforcement officers to complete legal documents for each trafficking case, and maintain strong communications with prosecutors and judges to ensure that all cases are processed and adjudicated promptly and in accordance with law.

Of the suspects apprehended between April and September 2016 (as outlined in Activity 3.2), one third (two illegal fishers and nine illegal traders) received prison sentences and/or fines during the reporting period, which is indicative of efficient documentation, communications, processing and adjudication. Four illegal fishers also received warning letters, with other legal cases continuing to progress.

The “*In House Training to Increase Prosecutors Capacity in Handling Wildlife Crime Cases*” as developed by WCS and the Attorney General Taskforce (See Activity 2.2) also contributed to building prosecutors’ capacity to deal with wildlife crime cases efficiently and effectively.

Activity 3.4 Support MMAF and the Attorney General’s Office to develop a tracking database, to record information on marine species crime cases, action taken by Indonesian law enforcement agencies, and the results (arrests, prosecutions, fines, etc.)

The WCU continues to maintain a comprehensive in-house database of all marine wildlife crime cases including dates, locations, crime type, suspects, species, sentences and fines.

Intelligence data is collated and analysed using IBM i2 software, and while this is funded by DEFRA-IWT 01, i2 outputs are being used to support marine wildlife crime law enforcement activities under this grant.

Output 4: At least 100 manta/shark fishers have transitioned to alternative sustainable fisheries or other livelihood practices, and support structures are in

place to help other manta/shark fishers to make the transition.

Activity 4.1 Produce an assessment report on the opportunities for manta/shark fishers to transition to sustainable fishing and other livelihoods.

During the reporting period, collation of data from the household survey of fishers in Tanjung Luar was completed. Preliminary results and conclusions were developed, which have been used to highlight additional research and analysis needs, as well as steps for a practical livelihoods intervention (e.g. collaboration with MDPI, see Activity 4.2).

An abstract outlining the research was submitted and accepted for presentation at an international workshop in Hanoi entitled 'International Wildlife Trade - Beyond Enforcement', which aims to explore how best to engage indigenous peoples and local communities living close to wildlife or illegal wildlife trade routes in order to better combat the illegal wildlife trade. The workshop will take place in November. The Darwin Initiative logo will be used on the presentation in order to acknowledge The Darwin Initiative as a funder.

Activity 4.2 Implement targeted livelihood assistance and incentive programs to transition households to alternative sustainable fishing or non-fishing practices, providing long-term livelihood security.

In September 2016 we instigated a collaboration with Yayasan Masyarakat dan Perikanan Indonesia (Society and Fisheries Indonesia, MDPI): An Indonesian foundation focusing on empowering fishing communities to achieve sustainability by harnessing market forces. MDPI primarily supports the development of value-added, responsibly-sourcing supply chains, and connects small-scale fisheries to these supply chains to support economic improvements, social stability and ecological sustainability in coastal communities. MDPI currently operates in 22 sites across six provinces in Indonesia (including West Nusa Tenggara) implementing fisheries improvement programs, creating access to sustainable and fair trade markets, and improving monitoring and traceability. We aim to leverage MDPI's unique capacity and connections to develop opportunities for, and access to, sustainable seafood markets in our target fishing communities. We anticipate this approach will have genuine market appeal, be adapted to people's capacities and aspirations, and can have a meaningful impact on biodiversity and livelihood security, particularly. A feasibility assessment for Tanjung Luar with practical recommendations will be conducted in the next quarter, and recommendations will be implemented within the next half year.

Activity 4.3 Put in place long-term sustainability mechanisms, by embedding interventions in customary fisher institutions and other mechanisms (e.g. microfinance) to enable continuing support after the end of the project.

A WCS community officer continued to be based in Tanjung Luar to build relationships and trust with the fishing community, and develop and in-depth understanding of local institutions and practices.

We began scoping work in Aceh to collect information on fisher behaviour and institutions, and build relationships with relevant communities and institutions, including the Panglima Laot. The results of this work will inform the design of an intervention that is adapted to the local context and capacities.

Activity 5.1 Conduct monthly shark and manta fisheries catch surveys at target sites.

During the reporting period we continued daily recording of elasmobranch landings in Tanjung Luar using a team of trained enumerators, and continued to collate this data in a comprehensive landings database, in order to keep track of catch. Data on the catch itself is collected, including species, size, maturity, gender etc., along with additional information on fishing behaviour which includes type of boat, fishing grounds and gears used. To improve the efficiency and reliability of data collection and collation we have begun to establish a system for collecting data via a mobile phone app, which builds on a similar successful initiative for snapper and grouper fisheries monitoring in Sumbawa.

We have begun to re-establish capacity for regular catch surveys in Aceh through our scoping work.

Activity 5.2 Undertake surveys, analyse and assess changes in shark and ray catch landings, prices and demand in response to changes in stakeholder knowledge and capacity, law enforcement and awareness raising activities.

From April-September an MSc student from Imperial College London conducted a research project entitled "Evaluating the impact of wildlife policy: the case of illegal manta ray catch and trade in Indonesia". The study presents: a) the first framework for monitoring illegal manta ray catch and trade in a source country; b) a preliminary assessment of the impact of Indonesia's manta ray regulation on fishing effort and onward trade in two case study sites (including Tanjung Luar); c) recommendations for further monitoring and implementation of the regulation, and for evaluating the impacts of wildlife trade regulations in the future. The study involved a mixed methods approach, using interview and survey data, landings data, trade data and law enforcement and intelligence data. We will use the framework and recommendations to conduct on-going monitoring and future impact analysis as implementation of the manta ray regulation continues, and plan to publish a peer-reviewed article once more longitudinal data has been collected and analysed.

In addition, the results of this research project have been presented at Imperial College London and at a seminar with The Manta Trust in Labuan Bajo, Indonesia, and the Darwin Initiative was acknowledged as a funder.

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.**Lessons learned:****Tanjung Luar livelihoods assessment**

The findings of the assessment on opportunities for elasmobranch fishers in Tanjung Luar to transition to sustainable fishing and other livelihoods indicate that instigating such a transition could be challenging, particularly in the context of simultaneously achieving poverty alleviation.

The major findings are that shark fishers earn a slightly higher average income than non-shark fishers, and are also generally wealthier, while income for boat owners and investors is significantly higher in the shark industry than in other fishers, and the boat owners and investors are few in number. Further, in many cases, a strong patron-client relationship exists between fishers and owners/investors, creating a cycle of reliance. In addition, shark fishers tend to be younger, are more likely to be migrants, and tend to work in the industry for shorter periods of time. These results indicate that a) power and profit is concentrated in the hands of a small number of boat owners and investors, who have little incentive to leave the trade b) the labour market for shark fishing crew is competitive and economically attractive, such that even if some shark fishers exit the fishery and transition to an alternative, the industry is likely to continue to operate due to high profits for investors and high substitutability of labour. In summary, creating viable alternative livelihoods for shark fishers in Tanjung Luar that are adapted to existing capacities, have market appeal, and reflect people's aspirations will be challenging because:

1. Shark fishers have limited capacity and aspirations to leave shark fishing, or the fishing industry in general
2. There is currently no financial incentive to leave the shark fishery, with few marine-based alternatives offering a similar profit to shark fishing
3. There are currently few disincentives for shark fishing, as regulations for shark protection are limited, with most target species remaining unprotected in international and domestic legislation

These findings may limit our ability to fully achieve Output 4 in Tanjung Luar, particularly activity 4.2.

Unexpected developments

New international elasmobranch regulations under CITES

During the recent CITES CoP in Johannesburg (CoP 17) thirteen new elasmobranch species were added to CITES Appendix II, including thresher sharks (*Alopias* spp., three species), silky sharks (*Carcharhinus falciformis*), and devil rays (*Mobula* spp., nine species). These decisions will come into force in the next 6-12 months, and could have a significant impact on Indonesia's shark fishing communities, including Tanjung Luar, due to international trade restrictions and the implementation of any corresponding domestic measures by the Indonesian government. This development has a number of implications for the project. Firstly, it will be important to understand the potential positive and negative impacts of these new regulations on species, target fishing communities, and trade; and secondly, we will need to adapt our interventions to fit within this new regulatory context. A basic analysis of elasmobranch landings data from Tanjung Luar (November 2013-October 2016) indicated that as much as one third of historic shark landings (by number and volume) could be impacted by these new regulations, however a more detailed analysis on volumes and values of domestic vs. international trade, and implications under different policy scenarios, is required. Given this, we may adapt our project approach and a) conduct further socioeconomic assessments in our target sites in order to understand the potential implications of these new policies, and b) look towards interventions that can support our target communities to adapt to the new regulatory environment, and

mitigating the potential negative socioeconomic consequences.

Change in affiliation of project partner

At the time of writing the original proposal, project partner 5, Professor E.J. Milner-Gulland, was based at Imperial College London, and Imperial College London was therefore listed as a partner institution. However, since starting the project, Prof. Milner-Gulland has moved to the University of Oxford, and we therefore intend to collaborate with the University of Oxford as our main academic partner institution going forwards. Nonetheless we will continue to explore activities for collaboration with Imperial College London, as opportunities arise.

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: No

Formal change request submitted: No

Received confirmation of change acceptance 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.

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**