

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 no more than 10 pages in length, excluding annexes

Submission Deadline: 30 April

Darwin Project Information

Project Reference	21-010
Project Title	Linking community resilience and sustainable coastal protection in the Philippines
Host Country/ies	Philippines
Contract Holder Institution	Zoological Society of London
Partner institutions	Department of Environment and Natural Resources (DENR), Interface Inc.
Darwin Grant Value	£318,964
Funder (DFID/Defra)	DFID
Start/end dates of project	April 2014 – March 2017
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	April 2015 – March 2016 Annual Report 2
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Project website/blog/Twitter	www.zsl.org/mangroves ; www.net-works.com https://www.zsl.org/blogs/conservation/ @HeatherKoldewey @ZSLMarine @nets2carpet @nickaohill
Report author(s) and date	Heather Koldewey, Josephine Savaris - 30 th April 2016

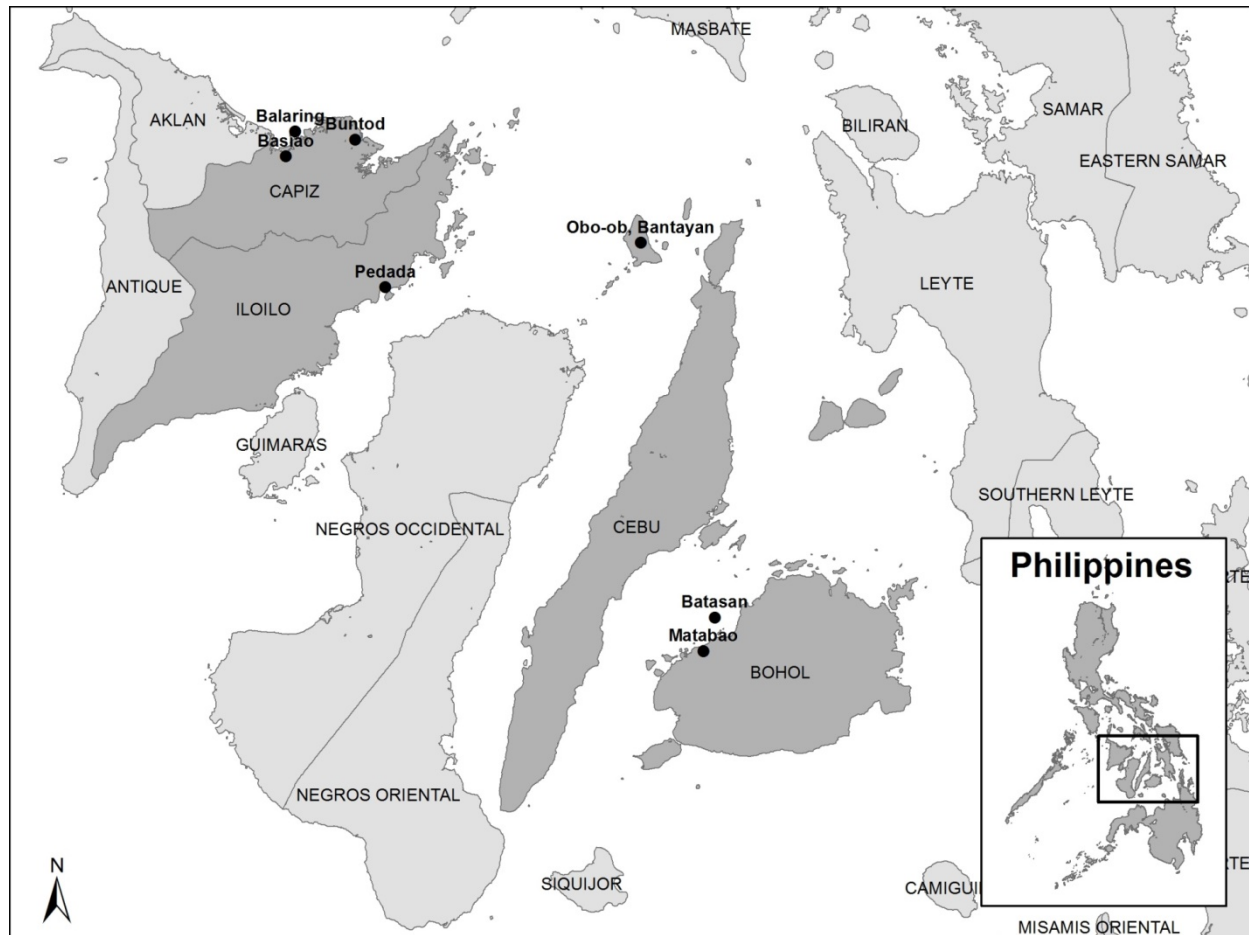
1. Project Rationale

In late 2013 the Visayas region of the Philippines was devastated by a 7.2 magnitude earthquake that hit Bohol, followed by Typhoon Haiyan that hit Northern Cebu and Northern Panay a few weeks later. The Philippines has over a 1000 marine protected areas (MPAs) throughout the country, however the combination of increasing disasters and climate change underline the need to increase coastal habitat protection and community resilience. Five major constraints were identified that need to be addressed to achieve this:

1. Most MPAs are small, falling short of national, international and ecological targets.
2. MPAs are biased towards coral reefs, rarely including mangroves, which support ~72% of fish catches and provide vital coastal protection. The Philippines has lost >70% of mangroves resulting in local fisheries collapse and increased vulnerability to climate change, demonstrated by the devastating storm surges following Typhoon Haiyan.
3. They are not yet “poor-friendly”, taking 3-10 years to increase biodiversity and fisheries, imposing opportunity costs to communities with immediate concerns of food security and livelihoods, resulting in reduced enforcement and increased infringement that undermines resilience.
4. MPAs are usually implemented independently of poverty alleviation interventions.
5. International dissemination among conservation and development practitioners is generally poor.

This project will augment current community-based MPAs by a) using MPAs and mangroves as focal points for community recovery following natural disasters, b) linking livelihood diversification directly to MPAs and mangroves, c) rehabilitating mangroves, essential for fisheries production and coastal protection, and d) increasing MPA size and management effectiveness. MPA effectiveness will be increased by connecting MPAs with sustainable livelihood options and diversifying habitats protected, focussing on mangroves due to the vital ecosystem services they provide.

The project is located in the 4 provinces that were impacted by either the earthquake or Typhoon Haiyan: Capiz, Iloilo, Bohol and Cebu. Below is the map of the sites:



2. Project Partnerships

The lead partner in this Darwin Initiative project is the Department of Environment and Natural Resources (DENR) that has been a partner of ZSL for almost 7 years now starting with the Big Lottery Fund supported project on Community Based Mangrove Rehabilitation Project (CMRP) in 2008. A Memorandum of Agreement (MOA) was signed initially but now, due to its longevity, the partnership continues without a formal MOA. However, in the Darwin sites of Balaring, Buntod and Pedada, the local community groups or People’s Organisations (POs) assisted by ZSL were formally contracted by the DENR to do mangrove seedling production and outplanting in their areas (copies of the PO contracts are attached as evidence to Output 3, Activity 3.4). Regular meetings are held with DENR regional representatives, as well as with staff in the national office in Manila.

On site, the key partners of the Darwin supported project are the Local Government Units (LGU). MOAs were forged with all 5 LGUs covered by the Darwin project. We also have strong collaborations with the People’s Organisations involved with the project, highlighted by the Barangay Pedada Fisherfolk Association co-organising the 2nd National Mangrove Conference with us in September 2016.

A formal contract has been established with the second project partner, Interface Inc., that articulates roles and responsibilities for the Net-Works project. Internationally, the Net-Works team meet monthly on operational matters with a Steering Committee meeting every three months. These meetings are minuted and all project documented on a cloud-based system (Loop).

3. Project Progress

3.1 Progress in carrying out project activities

Outcome. *1,000ha of coastal habitats across four provinces in the Philippines are effectively protected and sustainably managed by communities, reversing declining trends in local fisheries, and rebuilding for more resilient livelihoods.*

Progress: By the end of Year 2, we have secured 2,111.43 ha of mangrove, seagrass and coral reef habitat within community-managed marine protected areas in five priority communities, with further MPAs in progress. Sustainability mechanisms are in place or in progress, including 25 year tenurial instruments (CBFMAs, PACBAMAs), MPA ordinances, MPA management councils, MPA management plans, trained fish wardens and regular monitoring. Standardised monitoring and evaluation systems have been established and are underway for the MPA surveys (coral reefs, fish populations, mangroves, seagrasses), VSLAs, and livelihoods. Biophysical and socioeconomic profiles have been completed for all project priority sites. 15 VSLAs are now in place in 4 provinces involving 272 household members (236 women, 69 men). A total of P986,698 (£14,096) savings have been generated by the 10 VSLAs that have completed one cycle. Social funds (insurance) within VSLAs amounted to P30,163 (£430) while the newly introduced environmental funds amounted to P10,692 (£153). Five new livelihood options are being pursued by community groups (People's Organisations) in focal sites; ecopark management, mangrove/beach forest seedling production, oyster farming, boneless dilis (anchovies) and driftwood sculpture.

3.2 Progress towards project outputs

Output 1. *10 VSLAs implemented by year 2, and this number >doubled through the Village Agent model by year 3, increasing the financial security of villagers in four provinces (Bohol, Cebu, Iloilo, Capiz) and acting as a platform for community engagement in the management and protection of coastal ecosystems.*

Progress. 15 VSLAs formed in Year 2. Increase in number from 9 VSLAs that were reported in Year 1. A total of P986,698 (£14,096) savings generated by 10 VSLAs that have completed one cycle. Social funds (insurance) within VSLAs amounted to P30,163 (£430) while the newly introduced environmental funds amounted to P10,692 (£153).

Comments: Environmental funds still need to be installed in the Pedada and Balaring VSLAs. Formation of additional VSLAs within Darwin sites using village agents will continue with the village agent performance monitored regularly.

Output 2. *The Net-Works project is operating in at least 3 of the target villages in Bantayan (Cebu province) and Bohol, with villages feeding into the two sustainable business units (one in Bohol, one in Bantayan) that engage 20 communities in collecting an average of 200kg of discarded fishing nets per month and per village by year 3; cleaning beaches, preventing ghost fishing, and providing sustainable income.*

Progress. Scoping results were validated and ocular site inspection conducted to validate data. As a result, net collection and buying were not established in Panay and Bantayan sites since the volume of net is not sufficient to pursue business in the area. Only sites in Tubigon, Bohol (Batasan and Inanoran, Matabao) continue to feed bought nets to the Net-Works model with net collection of 382 kilos in 2015. This volume is way below the targeted volume of net collection for a sustainable business model of 200 kilos/month.

The number of households participating and earning additional income from networks in the Tubigon sites is limited to 70, also below the target of 100 households.

Comments: A scoping survey has now been established within the Net-Works toolkit to enable better assessment of candidate sites for net collection as part of a sustainable business model. Nets collected and sold within the Darwin project still help communities with supplemental income and an improved environment with less waste.

Output 3. *Business models developed and implemented at buffer zone sites adjacent to mangrove MPAs that diversify community livelihoods and include income from seaweed farming, mussel culture, ranching sea cucumbers/abalone, and mangrove nurseries.*

Progress. Documentation and recording of livelihoods has been initiated to generate income for communities. Panay communities pursue oyster farming, mangrove and beach forest seedling

production, driftwood sculpture and ecopark management as businesses. The counterpart sites in Tubigon, Bohol have completed writing the livelihoods inventory to guide them in identifying appropriate income generating projects following the challenges associated with sufficient net supply for the Net-Works business model.

Comments: Assist communities in writing proposals to access funds for People’s Organisation projects, and in following up actions of funding donors. Continue documentation of income generated by communities from livelihoods projects. Explore markets of products. Capacitate communities in product packaging and labelling especially boneless dilis (anchovies). Ensure sustainability of supply of raw materials. Conduct operational planning for the community working facility in Balaring to be self-sustaining/functional.

Output 4. >1,000 ha of mangrove, seagrass and coral reef habitats are effectively protected through MPA ordinances and community-based forest management agreements (CBFMAs) in four provinces (Bohol, Bantayan Island (Cebu province), Capiz, Iloilo) by year 3.

Progress. Five Mangroves in Marine Protected Areas (MMPAs) measuring a total of 2,111.43 ha of major habitat have been established and are now protected through Ordinances, 2 Protected Areas Community-Based Resource Management Agreement (PACBARMA) applications for Kodia and Oboob mangroves have been submitted to the Department of Environment and Natural Resources (DENR). Community-based Forest Management Agreements (CBFMA) applications for Ivisan, Ajuy mangroves persistently followed up by the Peoples Organisation (PO) with DENR but to date have not been successful.

Comments: Secure MMPA ordinance for Oboob, follow-up with DENR PACBARMA applications. Strategize with the POs how to fast track CBFMA applications for Ivisan, Ajuy and Buntod.

Output 5. 10 mangrove MPAs and community-based mangrove forest management plans are being implemented by year 2 from a baseline of 0, with MPAs enforced by 20 legally deputised fish and forest wardens, rated between Levels 3-5 under the national MPA Rating System (MEAT).

Progress. 2 MMPA management plans being implemented by Batasan and Matabao, 1 MPA management plan has just been developed for Kodia. Ivisan and Tubigon have deputized fish wardens conducting patrol operations regularly.

Comments: Develop the Oboob MPA management plan as soon as the ordinance is approved. Organize train and deputize fish wardens for new MMPAs in Bantayan.

Output 6. Side event at CBD SBSTTAs and/or COP and presentation at the 2014 IUCN World Parks Congress provide the forum for dissemination, that result in stakeholder cross-visits and training sessions to replicate the approach in 1 DFID priority countries with mangroves.

Progress: The side-event was completed in Year 1 of the project. In addition to the many national visits, we have hosted stakeholder cross-visits and training sessions with colleagues from Costa Rica and Viet Nam. We have built collaborations and joint training with the regional offices of international donor/implementing agencies GIZ, RARE and CORDAID. Heather Koldewey and Jurgenne Primavera shared project examples at an international symposium they co-organised ‘Turning the tide on mangrove loss’ international symposium between IUCN Mangrove Specialist Group, ZSL and Xiamen University, China in November 2015.

Remarks: In 2016 we will target engagement with DFID priority countries.

3.3 Progress towards the project Outcome

Outcome:	1,000ha of coastal habitats across four provinces in the Philippines are effectively protected and sustainably managed by communities, reversing declining trends in local fisheries, and rebuilding for more resilient livelihoods.		Comments (if necessary)
	Baseline	Change by 2016	Source of evidence
Indicator 1: At least	60 ha protected	By the end of Year	Appendix 31, 33,

<p>200 ha of mangroves, seagrasses and coral reefs are protected in two new MPAs (Bantayan (Cebu province), Iloilo/Capiz) and at least 800 ha are protected through restoring and strengthening two existing MPAs and six mangrove forest sites in four provinces (Bohol, Northern Cebu, Capiz, Iloilo), including using government tenurial instruments (Community-based Forest Management Agreements; CBFMAs), making a total of 1,000 ha effectively protected by year 3 from a baseline of 60 ha.</p>		<p>2, we have secured 2,111.43 ha of mangrove, seagrass and coral reef habitat within community-managed marine protected areas in five priority communities, with further MPAs in progress. Kodia was established as a new MPA in Year 2 with a total area of 104 ha. Sustainability mechanisms are in place or in progress, including 25 year tenurial instruments (CBFMAs, PACBAMAs), MPA ordinances, MPA management councils, MPA management plans, trained fish wardens and regular monitoring.</p>	<p>34 for MPA ordinances, 32 for Protected Area Community-based Resource Management Agreement and maps in appendix 36</p>	
<p>Indicator 2: Current declines in fish biomass and habitat cover for corals and mangroves within new and existing MPAs will be halted or reversed by year 3.</p>	<p>Data from existing MPAs, none from new sites.</p>	<p>Standardised monitoring and evaluation systems have been established and are underway for the MPA surveys (coral reefs, fish populations, mangroves, seagrasses).</p>	<p>Appendix 8 – new site profiling Appendices 45, 46, 47</p>	
<p>Indicator 3: Set baselines in year 1 through household baseline surveys and achieve an average of at least 20% improvement in locally-defined wellbeing scores and material style of life indices for 2,000 households within the 10 target villages by year 3. Wellbeing will be assessed using subjective quality of life approaches applied to fisheries and quantitative indicators (e.g. the proportion of households with tin</p>	<p>No household baseline surveys done</p>	<p>Baseline surveys completed</p>	<p>Appendix 8 – socioeconomic profiling</p>	

roofs).				
Indicator 4: Number of households in VSLAs increases from 100 at project start to 320 by year 3, with an average of £20 each in savings (based on experience in Bohol).	100	15 VSLAs were formed across 4 provinces (Cebu, Bohol, Iloilo and Capiz) with a total of 272 household members: Number of HH in Capiz -130 Number of HH in Cebu - 55 Number of HH in Bohol -70 Number of HH in Iloilo-17	Appendix 3, 4, 5, 6	
Indicator 5: Communities assessed and where feasible, linked up to Net-Works business model which involves collecting an average of 200kg of nets per month per site for recycling (equivalent to £560 per village per year in communities where average household income is ~£110 per month) by year 3.	No net collection	Only sites in Tubigon, Bohol (Batasan and Inanoran, Matabao) are feeding bought nets to the Net-Works model with net collection of 382 kilos in 2015. This volume is below the targeted volume of net collection of 200 kilos/month. The number of households participating and earning additional income from Net-Works in the Tubigon, Bohol, sites is limited to 70, also below the target of 100 households.	Appendix 14 – Matabao livelihood inventory	The scoping toolkit now helps better identify communities with viable net collection to develop as part of the sustainable business model. Further livelihood profiling is underway in these communities to avoid
Indicator 6: All 10 communities have diversified livelihoods to include sustainable enterprises (e.g. Net-Works, aquaculture, mangrove enterprises) with an increase from an average of 2 to 2.5 livelihoods across the 2000 households in the target villages by year 3.	No information on livelihoods	The following were the 5 businesses pursued by the Darwin assisted POs: 1. Ecopark management – OMAGIECA (Oboob, Bantayan) and BPF A (Pedada, Ajuy) 2. Mangrove/ beach forest seedling production – BPF A (Pedada, Ajuy) and KODFA (Kodia, Mdridejos) 3. Oyster farming - 1Basiao Oyster	Appendix 12, 13,15,16, 17, 18. Business plans in Appendices 25-29.	

		<p>Farmers Association (Ivisan, Capiz)</p> <p>4. Boneless dilis – New Balarang Mangrove Association</p> <p>5. Driftwood sculpture – Buntod Katibyugan (Panay, Capiz)</p> <p>Business plans for each of the businesses were developed with the 5 People’s Organisations.</p>		
Indicator 7: 4 project MPAs are independently scored from Level 3 (Sustained) to Level 4 (Institutionalized) under the National MPA Effectiveness Assessment Tool (MEAT) for effective management and enforcement by year 3 (none scored prior to project).	No MPAs scored.	MPA MEAT reports show Batasan and Matabao improved from Established to Strengthened.	Appendix 48, 49	
Indicator 8: This Philippines model for sustainable community-based MPAs that encompass mangrove habitats is replicated in at least 1 site in the Philippines and in at least 1 DFID priority countries by the end of Year 3 through invited cross-visits with project staff.	No activity	2 nd National Mangrove Conference conducted as a platform to share examples, publication of Training of Trainers Manual in Mangrove and Beach forest rehabilitation and conservation.	Appendix 2	

3.4 Monitoring of assumptions

Outcome assumptions: The original assumptions submitted in the application hold true. A presidential election is taking place on 9th May 2016 so project activities have been planned around that, including time away from the field sites during potentially unstable periods.

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

The project has already exceeded the project target of 1,000 ha of coastal protection, having secured 2,111.43 ha of mangrove, seagrass and coral reef habitat within community-managed marine protected areas.

The VSLA mechanism of community savings, for the first time linked with conservation, is providing a new approach that alleviates the opportunity costs of many management interventions such as MPAs.

The communities are embracing these savings with the notable addition this year of integrating an environmental savings component to provide funds for communities to manage their own resources. In the context of the post-disaster challenges for poor coastal communities, we have been able to document stories where the VSLAs are making a tangible difference to families and communities (discussed in detail later).

The project has been very effectively communicated locally, nationally and internationally and is rapidly working towards achieving impact through disseminating materials to enable project replication. Highlights of Year 2 included the joint press event to launch Net-Works in Malia with the British Embassy which raised the profile of the Darwin Initiative nationally and internationally through extensive coverage; The second National Mangrove Conference which was co-organised with one of the project People's Organisations Barangay Pedada Fisherfolk Association (BPFA) and involved 143 resource speakers and participants from local and national government agencies, international and national NGOs, academic institutions, people's organisations, donors and private sector groups. Finally our manual for trainers in mangrove and beach forest conservation and rehabilitation provided tools to disseminate the project findings and encourage replication and has been formally adopted as a training manual by the Department of Environment and Natural Environment (DENR).

4. Contribution to SDGs

Goal 1: Ending poverty – the VSLAs improve access to savings, loans and insurance; new livelihoods have diversified and supplemented community income; community-managed MPAs and associated tenurial instruments have improved ownership and management of natural resources.

Goal 2: End hunger – MPAs improve food security through protein from more sustainable and secure fisheries; livelihoods relating to food production e.g. oyster culture.

Goal 4: Quality education – training courses in mangroves, beach forests, Net-Works and associated livelihoods ensure that all learners acquire the knowledge and skills needed to promote sustainable development and sustainable lifestyles.

Goal 5: Gender equality – through people's organisations, VSLAs and MPA management councils we have ensured women's full and effective participation and equal opportunities for leadership at all levels of decision-making.

Goal 6: Sustainable economic growth - higher levels of economic productivity through diversification of livelihood options and improved financial security through VSLAs.

Goal 11: Make cities and human settlements sustainable and resilient - Integration and adoption of mangrove protection and rehabilitation strategies into the local government land use planning policies and coastal resource management plans, including budget allocation for these strategies within local government and village budgets.

Goal 12: Sustainable production and consumption patterns - Implementation of MPAs that support sustainable management of natural resources.

Goal 13: Climate change - Mangrove forests are massive carbon sinks and they mitigate climate change through carbon storage as well as reducing the impact of changing weather patterns, such as storm surges and tsunamis.

Goal 14: Conserve and sustainably use oceans - Implementation of MPAs that protect marine biodiversity and encompass a variety of vulnerable habitats (seagrasses, mangroves, coral reefs). Through Net-Works, reduction of plastic waste entering the ocean. Through community capacity building and coastal resource management planning, improved access of small-scale artisanal fishers to sustainable marine resources and through livelihood diversification e.g. oysters, boneless dilis (anchovies) improved access to markets.

Goal 15: Conserve and sustainably use forests - The CBFMAs, MPAs and associated training courses and manuals in mangrove and beach forest protection, rehabilitation and management are helping to meet the goal to ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests and wetlands.

5. Project support to the Conventions, Treaties or Agreements)

ZSL Philippines staff contributed to the new Philippines NBSAP and were an active part of the consultation process. The Biodiversity Management Bureau of the Department of Environment and Natural Resources remain key project partners, participating in training and workshops and supporting our manuals through endorsement and dissemination. The 2nd National Mangrove Conference provided an important platform to progress the mangrove conservation agenda against the NBSAP.

Through the protection of 2,111.43 ha of mangrove, seagrass and coral reef habitat within community-managed marine protected areas, we are actively contributing to the 10% marine protection target by 2020 of the CBD.

The project is documenting key species within the MPAs that are listed under CITES, including traded scleractinian corals, seahorses and sea turtles and feeding those data into the relevant IUCN Specialist Groups. ZSL hosts and co-ordinates the IUCN Mangrove Specialist Group and co-organised an international symposium in November 2015 at Xiamen University, China which was used as a forum to discuss better integration of mangroves into CBD targets.

6. Project support to poverty alleviation

- a. Engaged with communities on livelihoods – Five communities with an estimated 615 households - an increase of 70 households from the 545 households reported in year 1 - are now implementing oyster production, boneless dilis (anchovy) production, driftwood sculpture crafts, mangrove/beach forest seedling production and ecopark management where the direct beneficiaries are fisherfolk families observed to have increased in income per household with the initial income earned from these projects. Business plans are in place with the 5 POs. In year 2 the driftwood sculpture project earned Buntod Katibyugan £328 (P23,000), the Pedada ecopark earned £1,260 (P88,257) mainly from donations/entrance fees and catering service while their seedling production earned participating communities £7,456 (P521,980). The Oboob ecopark earned £1,260 (P88,257) however majority of these amount was used for repairs/maintenance. The Kodia mangrove and beach forest nursery earned £813 (P56,932). The boneless dilis project of Balaring, Ivisan earned £295 (P20,660).
- b. Formation of the VSLAs in the sites. At present 15 VSLAs have been formed in focal communities of Darwin, generating savings of £11,664 (P816,530) from the 10 VSLAs that have completed one full cycle in year 2. Loans were offered to the majority of the VSLA members and are mostly used for purchase of basic needs of the family, capital to initiate or implements livelihoods and education of children.
- c. Qualitative descriptions of the benefits of VSLAs (Appendices 6a-6c) in addressing poverty through example stories from three different communities facing poverty and hardship.

7. Project support to Gender equity issues

The Darwin project has given equal opportunity and participation to men and women members of the community however records would show that women dominate membership in the PO and VSLAs. The men tend to engage more in productive activities such as oyster farming, fishing and are outside of the home most of the time. The women are entrusted with taking care of the finances at home. Even the number of women village agents to replicate the VSLAs is more than men (Appendix 1).

8. Monitoring and evaluation

The M&E plan is as planned as indicated in the detailed quantitative and qualitative reporting provided in Annex 1 and the additional Annexes.

Significant progress has been made in Year 2 through the introduction of a standardised monitoring and evaluation process for the VSLAs which is managed by a member of the Net-Works project team (co-financing for the Darwin project). All biological and socioeconomic data are now centralised and work continues to explore how this can be better managed as a database that is open access.

9. Lessons learnt

- Need to provide immediate feedback following mangrove community structure (MCS) surveys to POs so they will be guided in harvesting for the mangrove seedling production livelihood project.
- Business plans must be in place to serve as guide in systematically implementing livelihoods chosen.
- Proper documentation of income earned/ clear sharing scheme to avoid conflict among PO members.
- As part of the PO sustainability plan, the POs need to allot amount or % of income earned to the organizational fund.
- Ensure good set of leaders in every PO election (while ensuring an apolitical and fair democratic process).
- Value of savings through VSLAs is a cohesive mechanism to unite the community members.
- More beneficial if VSLAs are exclusive to PO members as they strengthen access to finances and maintain regularity in the conduct of meetings. However, it is important to follow the standard protocols for VSLAs.

- Need for regular conduct of information/education/communication to community members, particularly MPA Management Councils on ecosystem management/MMPAs and their importance for better appreciation/ awareness.

10. Actions taken in response to previous reviews (if applicable)

N/A

11. Other comments on progress not covered elsewhere

N/A

12. Sustainability and legacy

Our approach includes the following:

- **Implementing VSLAs** and training village agents that will promote and assist in VSLA formation and monitoring even after project ends.
- **Net-Works** - continue feeding of existing net buying in the Darwin sites to the networks business model. i.e. Batasan and Inanoran, Matabao.
- **Local ordinances** implemented to provide a governance framework to protect mangrove forests and delineate MPAs. We have achieved 4 ordinances in Ivisan, Batasan, Matabao and Kodia for MMPAs, have 3 Community-based Forest Management Agreements (CBFMA) in progress and 2 PACBARMAs which will provide communities with 25 years tenure for their mangrove forests.
- **Trained People's Organisations and MPA Management Committees** to help manage MPAs, establish mangrove nurseries, replant mangroves, and develop new livelihoods. Much of our focus in Year 2 has been on strengthening livelihoods by putting in place business plans for each livelihood option and training communities in fund sourcing for infrastructure support e.g. ecoparks. We have also focused on training communities in proper documentation of income generated by some of the livelihoods such as mangrove and beach forest seedling production, driftwood sculpture, entrance fees from visitors to the ecoparks, as well as the actual costs of operation.
- **Increased capacity** within government and NGOs to successfully rehabilitate mangroves and institutionalise sustainable social and ecological approaches that are not currently widely practiced. Coastal Resource Management plans developed by the Local Government Unit partners e.g. Madrideojos, Bantayan island now include mangroves within their agenda.

13. Darwin Identity

The Darwin logo is visible in the following materials (Appendix 2):

A. Published Materials:

Proceedings of the 2nd National Mangrove Conference, Manual for Trainers Mangrove and Beach Forest Rehabilitation and Conservation

B. Posters/ flyers/ Tidal Calendar:

No planting on Seagrass Beds, Common Mangrove Species, What is a Fish Sanctuary, Sustainable Harvesting of Imbao , 2016 Tidal Calendar

C. Activity materials

Attendance sheets, Streamer, Certificate of Participation

In addition the following activities have taken place to ensure the Darwin Initiative is recognised within the host country:

- D. Following meetings with the British Embassy in Manila by Heather Koldewey in January 2015, followed up by ZSL-Philippines Country Manager Glenn Labrado, we initiated a joint event launching Net-Works to the Philippines on 10th June 2015 which featured the Darwin Initiative in the press release (<http://net-works.com/press/net-works-the-worlds-first-inclusive-business-model-to-recycle-discarded-fishing-nets-made-in-the-philippines-and-now-primed-to-go-global/>). The event attracted significant national and international media attention which recognised the Darwin Initiative, from specific mentions through to

showcasing the logo through images <http://www.leadeventsph.com/net-works-press-launch-at-the-british-embassy-in-manila>

- E. High profile of Darwin Initiative logo and associated mentions at all training workshops and the National Mangrove Conference (November 2015) with NGOs, humanitarian agencies, government agencies, and academia.
- F. Social media. Regular tweets linking to the Darwin Initiative are shared by Heather Koldewey (@heatherkoldewey, 2,156 followers) and @ZSLMarine (4,053 followers). Project information is shared through the ZSL Marine and Freshwater (2,248 followers) and this year, ZSL-Philippines Darwin project team members were appointed as administrators on the ZSL Marine and Freshwater Facebook page and have been sharing project information directly.

14. Project Expenditure

Table 1 Project expenditure during the reporting period (1 April 2015 – 31 March 2016)

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			-0.01	
Consultancy costs				
Overhead Costs			0.02	
Travel and subsistence			0.18	
Operating Costs			-0.32	
Capital items (see below)			-0.14	.
Others (see below)			0.05	
TOTAL			0.00	

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

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p>Impact</p> <p>Community-based marine protection in the Philippines contributes to disaster recovery and resilience to natural disasters while helping meet national and international targets (10% by 2020) through habitat and livelihoods diversification.</p>		<p>2,111.43 ha of coastal habitat has been protected.</p>	
<p>Outcome</p> <p>1,000ha of coastal habitats across four provinces in the Philippines are effectively protected and sustainably managed by communities, reversing declining trends in local fisheries, and rebuilding for more resilient livelihoods.</p>	<p>Indicator 1 At least 200 ha of mangroves, seagrasses and coral reefs are protected in two new MPAs (Bantayan (Cebu province), Iloilo/Capiz) and at least 800 ha are protected through restoring and strengthening two existing MPAs and six mangrove forest sites in four provinces (Bohol, Northern Cebu, Capiz, Iloilo), including using government tenurial instruments (Community-based Forest Management Agreements; CBFMAs), making a total of 1,000 ha effectively protected by year 3 from a baseline of 60 ha.</p> <p>Indicator 2 Current declines in fish biomass and habitat cover for corals and mangroves within new and existing MPAs will be halted or reversed by year 3.</p> <p>Indicator 3 Set baselines in year 1 through household baseline surveys and achieve an average of at least 20% improvement in locally-defined wellbeing scores and material style of life indices for 2,000 households within the 10 target villages by year 3. Wellbeing will be assessed using</p>	<p>To date, 2,111.43 ha of coastal habitat has been protected and restored in two provinces (Panay and Bohol) through the establishment of MPAs that includes mangroves by this project, meaning the area target has already been exceeded. Good progress is being made in establishing MPAs in the 3rd province of Cebu.</p> <p>Annual surveys have been conducted across all sites to establish the status of fish biomass, corals, mangroves and seagrass beds. Management effectiveness is being improved through the training and deputisation of fish wardens in 4 sites (Basiao, Balaring, Batasan and Matabao) and implementing the national standard method for MPA effectiveness assessment. All MPA sites mapped on GIS.</p> <p>Household surveys to establish the socio-economic status of the households in the focal sites have been conducted and data encoded. The number of total households reached by the project in year 2 is 672.</p>	<p>Identification of expansion potential of other target MPAs.</p> <p>Progress CBFMA designation.</p> <p>Training and strengthening of POs and MMCs, with further training and deputisation of fish wardens.</p> <p>Further VSLAs established and the village agent model consolidated.</p> <p>Business plans for livelihood interventions being implemented and monitored.</p> <p>Ongoing encoding and analysis of socioeconomic and biological data with feedback to communities and government.</p> <p>Establishment of project database with GIS maps.</p> <p>Ongoing national level engagement with DENR to incorporate findings into NBSAP.</p>

	<p>subjective quality of life approaches applied to fisheries and quantitative indicators (e.g. the proportion of households with tin roofs).</p> <p>Indicator 4 Number of households in VSLAs increases from 100 at project start to 320 by year 3, with an average of £20 each in savings (based on experience in Bohol).</p> <p>Indicator 5 Communities assessed and where feasible, linked up to Net-Works business model which involves collecting an average of 200kg of nets per month per site for recycling (equivalent to £560 per village per year in communities where average household income is ~£110 per month) by year 3.</p> <p>Indicator 6 All 10 communities have diversified livelihoods to include sustainable enterprises (e.g. NetWorks, aquaculture, mangrove enterprises) with an increase from an average of 2 to 2.5 livelihoods across the 2000 households in the target villages by year 3.</p> <p>Indicator 7 4 project MPAs are independently scored from Level 3 (Sustained) to Level 4 (Institutionalized) under the National MPA Effectiveness Assessment Tool (MEAT) for effective management and enforcement by year 3 (none scored prior to project).</p> <p>Indicator 8 This Philippines model for sustainable community-based MPAs that encompass mangrove habitats is replicated in at least 1 site in the Philippines and in at least 1 DFID priority countries by the end of Year 3 through invited cross-visits with project</p>	<p>Three sites (Batasan and Inanoran, Matabao) are collecting nets and supplying the Bohol Net-Works business model at an average of 40-50 kilos per month. Scoping studies were conducted in the Panay and Bantayan sites but did not have sufficient net volume to enable the Net-Works model to be implemented.</p> <p>Further livelihood diversification is being implemented in five communities (Balaring, Basiao, Buntod, Pedada and Oboob) where 571 households are currently engaged.</p> <p>Two MPAs have been scored at Level 2 (Strengthened) using the national standard MPA Management Effectiveness Assessment Tool (MEAT) (from a baseline of Level 1, Established).</p> <p>Mangrove protection was incorporated in the Marine Strategy developed by the IUCN World Parks Congress following interventions by the Darwin project team and this was followed up in Year 2 with an international mangrove symposium in China and a National Mangrove Symposium in the Philippines, both organised by ZSL.</p>	
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<p>Output 1</p> <p>10 VSLAs implemented by year 2, and this number >doubled through the Village Agent model by year 3, increasing the financial security of villagers in four provinces (Bohol, Cebu, Iloilo, Capiz) and acting as a platform for community engagement in the management and protection of coastal ecosystems.</p>	<p>Indicator 1 At least 10 VSLAs with 15-25 members established through People's Organisations or MPA management committees in project sites by year 1.</p> <p>Indicator 2 At least 1 additional VSLA established in each of the 10 total sites through Village Agents by year 3, taking the total number of households engaged in VSLAs to at least 320.</p> <p>Indicator 3 Households involved in VSLAs see improvements in living conditions (measured through socioeconomic surveys as material style of life and locally defined wellbeing indicators that are identified by socioeconomic/wellbeing assessments) by year 3.</p> <p>Indicator 4 Female household heads report reduced frequency in the use of food coping strategies, reflecting improved food security, by year 3.</p> <p>Indicator 5 Households engaged in VSLAs saving at least US\$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.</p> <p>Indicator 6 Households engaged in VSLAs saving at least US\$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.</p>		<p>A total of 15 VSLAs were formed across 4 provinces (Cebu, Bohol, Iloilo and Capiz) with a total of 272 household members (current shortfall of 48 households from the target of 320 Households). In the Philippines, VSLAs are called CoMSCAs (Community Managed Savings and Credit Associations) which is the terminology used in the Appendices. The breakdown is as follows:</p> <p style="padding-left: 40px;">Number of HH in Capiz -130</p> <p style="padding-left: 40px;">Number of HH in Cebu-55</p> <p style="padding-left: 40px;">Number of HH in Bohol -70</p> <p style="padding-left: 40px;">Number of HH in Iloilo-17</p> <p>Only 10 Village agents were trained across all Darwin sites since one of the criteria was for an applicant Village Agent to at least complete one VSLA cycle in order to qualify. The VSLA groups in the Bantayan sites has not completed one cycle hence no VA was trained. Likewise no VA was trained from Batasan since a typhoon landed in Cebu on the day of the training. Participants fear to cross Cebu from Bohol.</p> <p>VSLA groups are dominated by females with 236 members (77 %), only 69 members are males (23%).</p> <p>Activities of VSLA groups are closely monitored by the Community Organisers/Local Community Organisers and reported to Net-Works that consolidate/ archive data in the Monitoring and Evaluation database. As of 30 March 2016, the cumulative social funds of VSLAs in the Darwin sites amounted to P30,163 (£430) while the newly introduced environmental funds amounted to P10,692 (£153). The Social funds can be availed by the members for incidental expenses incurred during minor accidents, purchase of medicines, doctors consultation, death of family members while environmental funds are used to support MMPA activities e.g. purchase of marker buoys, food during mangrove planting or coastal clean-up. Both the social and environmental funds come from weekly donations from VSLA members of a pre-set amount. VSLA members agree on how funds are used and we are finding these are very empowering in reducing risk and also enabling communities to take charge of managing their own environmental resources.</p> <p>Appendix 3 shows the profile of the VSLA (CoMSCA) groups across Darwin sites.</p> <p>The 10 VSLA groups that has completed one cycle has generated a total of P816,530 (£11,665) savings or an average of P4,187 savings / VSLA group or P217.00/hh/year (~5.42 USD) (Appendix 4). Income from interests of loans and penalties paid by members for violations to protocols set during meetings amounted to P170,168 (Appendix 5).</p>

		<p>VSLAs facilitated easy access to financial support to farmers/ fishers particularly those whose livelihoods were affected by Typhoon Yolanda. Members who availed of the loans use the funds for purchase of daily basic needs like food (32%), livelihoods capital (28%), education of children (27%), health (12%) and house improvement (1%), (Appendix 6). Example stories of the difference VSLAs (CoMSCAs) are making are given in the personal stories in Appendix 6a, 6b and 6c.</p>
<p>Activity 1.1 Workshop and training-of-trainers e.g. other conservation NGOs on VSLAs</p>		<p>Training and mentoring of BRIDGE team (an associated project) on VSLAs continues. In fact 1 VSLA group BANECA Savers Group was formed in the BRIDGE site in Agustin Navarra, Ivisan as a result of this.</p> <p>A gathering of VSLA practitioners happened last CoMSCA (=VSLA) summit 27-29 May 2015 in Cebu City where the 4 COs/Local COs of Darwin participated. Appendix 7 is the documentation of the CoMSCA summit</p> <p>An internal discussion among ZSL staff implementing VSLA took place on the 1st day 27 May 2015 where the discussion on current status and direction, proposed innovations that can be adapted by VSLA groups under ZSL projects took place.</p> <p>On 10-12 September 2015 RARE Philippines visited Darwin sites to learn about Darwin livelihoods and CoMSCA. They plan to replicate best CoMSCA practices in their sites in Mindoro, Zambales, Palawan and some areas in Mindanao. The Darwin CO in Panay also participated in the RARE Philippines Coastal Livelihood Mapping Workshop last 16 October 2015 at Quezon City to share best livelihoods practices in the ZSL Darwin sites.</p>
<p>Activity 1.2, At new sites, development of socioeconomic baselines through collection, analysis and feedback of data from household surveys and participatory rural appraisal. Updated data collection and feedback at existing sites.</p>		<p>The socio-economic and biophysical profiles of Kodia and Oboob were completed (Appendix 8).</p>
<p>Activity 1.3 Establishment and fostering of VSLAs in the 10 village sites in four provinces.</p>		<p>15 VSLAs/CoMSCAs were formed in four provinces in year 2. An additional 6 CoMSCAs were formed from the 9 CoMSCAs that were reported in Year 1.</p> <p>Province of Capiz</p> <ul style="list-style-type: none"> Municipality of Ivisan – Villages of Basiao (3) and Balaring (2) Municipality of Panay – Village of Buntod (3) <p>Province of Iloilo</p> <ul style="list-style-type: none"> Municipality of Ajuy – Village of Pedada (1) <p>Province of Bohol</p> <ul style="list-style-type: none"> Municipality of Tubigon- Villages of Matabao (2) and Batasan (1)

	<p>Province of Cebu</p> <p>Municipality of Madridejos- Village of Kodia (1)</p> <p>Municipality of Bantayan- Village of Oboob (2)</p> <p>In Ivisan where Darwin and BRDGE projects integrate CoMSCA groups were also formed in Villages of Agustin Navarra (1) and an orientation took place in the village of Cabugao (1). These villages however are non-Darwin sites hence were not accounted for.</p>
<p>Activity 1.4 Replication of VSLAs through Village Agent model i.e. identification and mentoring of VSLA Village Agents.</p>	<p>2 VSLA Village agents trainings led by the Net-Works project team was conducted, one for Cebu, Bohol and Bantayan on 21-23 October 2015 with 16 participants. The training for the Panay Darwin sites was conducted 19-21 January 2016 with 31 participants.</p> <p>2 batches of Monitoring and Evaluation training was also conducted. 19 August 2015 in Iloilo for Panay Darwin and BRIDGE staff (4 participants) and 13 October 2015 in Cebu for Community Organizers across all projects including personnel for the Darwin project (6 participants) for proper CoMSCA monitoring. The training introduced the current monitoring form for CoMSCA groups on all sites.</p> <p>The Monitoring and Evaluation training has the following objectives:</p> <ul style="list-style-type: none"> • To enhance appreciation, increase participation in monitoring and evaluation of the project and be able to evaluate project effectiveness for impact assessment and adaptive management • To gain more understanding on the monitoring tools and why we are doing this • To practice skills, identify and address knowledge gaps • To develop and integrated M&E action plans in moving forwards <p>After the training, VSLA/CoMSCA point persons/ project submits regular reports to the Net-Works M&E point person for data compilation/archiving.</p>
<p>Activity 1.5 Socioeconomic impact assessment through collection, analysis and feedback of data from household surveys and participatory rural appraisal.</p>	<p>Biophysical profiles for Tubigon, Bohol sites were completed (Appendix 47) and socioeconomic profile report is underway.</p>
<p>Activity 1.6 Training of VSLA members on waste management, coastal protection and rehabilitation and sustainable livelihoods.</p>	<p>A write shop with 11 POs including those in the Darwin sites took place from 27-29 August 2015 to develop a proposal on mangrove rehabilitation in their sites for the Philippine Tropical Forest Conservation Foundation amounting to P1M (₱14,286). The draft proposal (Appendix 9) had already been submitted and reviewed by PTFCF but would still needs finalization for funding consideration. The 11 POs agreed for The PO in Balaring, Ivisan, called NewBama to serve as the main project proponent.</p>

		<p>The CoMSCA members who joined the pagatpat (local name for the mangrove species <i>Sonneratia alba</i>) germination training in Ajuy, last 15-16 July 2015 took charge of conducting onsite trainings to the members of NewBAMA and BANECA and produced nursery plans for both POs.</p> <p>A follow up training on pagatpat germination by the ZSL bio team for 24 participants in Buntod (24 September) 20 participants in Ivisan (25 August 2015) and 30 participants in Pedada, Ajuy (9 October 2015) was also conducted.</p> <p>To date a total of 2, 997 pagatpat seedlings were produced by the POs in their nurseries (Appendix 10).</p>
<p>Output 2. The Net-Works project is operating in at least 3 of the target villages in Bantayan (Cebu province) and Bohol, with villages feeding into the two sustainable business units (one in Bohol, one in Bantayan) that engage 20 communities in collecting an average of 200kg of discarded fishing nets per month and per village by year 3; cleaning beaches, preventing ghost fishing, and providing sustainable income.</p>	<p>Indicator 1 At least 11 tons of discarded nets collected from 5 villages annually and fed into global supply chain through Interface.</p> <p>Indicator 2 100 households earning additional income from NetWorks in year 2 and 300 households earning additional income from year 2.</p> <p>Indicator 3 Business model of Net-Works generates sufficient funds to support a local co-ordinator salary by Year 2.</p> <p>Indicator 4 Annual coastal clean-up event implemented in 10 villages.</p>	<p>Net collection and buying were not established in Panay and Bantayan sites since volume of net is not significant to pursue business in the area.</p> <p>Only sites in Tubigon, Bohol (Batasan and Inanoran, Matabao) continue to feed bought nets to the Net-Works model with net collection of 382kilos in 2015. This volume is below the targeted volume of net collection of 200kilos/month.</p> <p>The number of households participating and earning additional income from networks in the Tubigon, Bohol, sites is limited to 70, also below the target of 100 households.</p> <p>The target to generate funds to support a local coordinator salary in year 2 was not achieved therefore alternative livelihood strategies are being adopted, including a livelihood profiling in the Bohol sites (Appendix 14).</p> <p>7 villages (Darwin sites) and 3 villages (non-Darwin sites) participated in the annual coastal clean-up where a total of 2,054.78 kilos of waste were collected</p>
<p>Activity 2.1. Scoping site visits to 5 villages in Bantayan and Bohol to assess levels of discarded nets and to introduce the Net-Works concept.</p>		<p>Last 16 April 2015 Net-Works and Darwin team members met to discuss scoping results done for networks on Darwin sites. A recommendation to revalidate the stage 3 scoping result for Pawa, Panay, Capiz was agreed in that meeting.</p> <p>Further discussions on the Pawa scoping result was conducted by Darwin and Networks on the 3rd day of the CoMSCA Summit, 29 May 2015, with 655 fishers able to discard estimated volume of 7099 kilos of net monthly. Issues like competition in the area for nets where buying costs can rise up to as high as 20-25 P/kilo may not be a positive indicator for setting up the networks business in the area. Dr.Nick Hill visited Pawa, Panay, 6-7 June 2015 to check on the validity of the data. In the ocular inspection conducted last 17 June 2015 led by the Net-Works team it was found out that big volume of discarded nets are recycled by the farmers in Buntod to serve as attachments of oyster/mussel.</p> <p>The COs of Darwin and Waterloo assisted projects also met last 29 May to share strategies on how best to integrate networks in COing for Darwin.</p>

	The Darwin sites in Bantayan were endorsed to feed net bought to the Project Dunganon Center established by Networks in Baud, Bantayan.
Activity 2.2. Implementation of collection systems, through seeding VSLAs with net buying funds or providing direct payments for nets.	<p>Net Manager's Orientation for Darwin Panay Sites was conducted last October 2015 where 3 would be managers from Panay, Ivisan and Ajuy were brought to the Networks Northern Iloilo hub to learn the functions of a nets manager and observe their operation.</p> <p>Only the sites in Tubigon continue to supply to the networks business model in 2015 where 130 kilos of nets in Batasan and 252 kilos of nets in Inanoran, Matabao, Tubigon, Bohol were collected.</p> <p>The volume of nets in the other Darwin sites (Panay and Bantayan Island) are considered not significant hence net buying as a business would not be profitable.</p>
Activity 2.3 Implementation of packaging and transport systems to bale nets and ship them to Net-Works transport hubs for consolidation and export.	Net-Works has already put a system where nets are accumulated up to a volume of 1,000 kilos on site in Batasan and Inanoran, Matabao. After which the nets are transported by boat to the hub in Suba, Talibon, Bohol for bailing. The bailed nets upon reaching a volume of 10,000 kilos are then shipped/transported by container vans to outside of the country via Cebu port.
Activity 2.4 Monitoring and reporting of income and expenditure as part of Net-Works business model.	In Batasan and Inanoran, Matabao nets were bought by Net-Works from the CoMSCA group at P13/kilo (£0.18), the PO buys the net at P7.00 (£0.10) from the members, hence an estimated income of P6/kilo (£0.08) was generated. For the 382 kilos of net that were collected in 2015 the CoMSCA groups were able to earn an income of P2,292 (£33).
Activity 2.5 Annual coastal clean-up event in 10 villages.	<p>The number of villages that participated in the Annual Coastal Clean-up last 23 September 2015 increased to 7 from the 4 villages reported in Year 1. This included Matabao (Tubigon, Bohol), Kodia (Madrideos, Cebu), Agustin Navarra, Balaring, Basiao (Ivisan, Capiz), Buntod (Panay, Capiz) and Pedada (Ajuy, Iloilo). Total participants were 446 individuals who were able to collect waste volume of 1,229.6 kilos. Only the village of Oboob, Bantayan, Cebu did not participate due to conflict in schedule. Appendix 11 shows the data on waste collected and pictures during the conduct of the International Coastal Cleanup.</p> <p>Even non-Darwin sites of Lat-asan, Bantigue and Pawa in the municipality of Panay, Capiz participated where total waste collected was 825.18 kilos, broken down as follows:</p> <p style="padding-left: 40px;">Pawa: 128.18 kilos from 22 sacks Bantigue: 511 kilos with 12 participants Lat-asan: 186 kilos with 24 participants</p> <p>Pawa National High School actively participated in the activity. The simultaneous clean up started at 3 PM in Pawa, Buntod and Lat-asan while Bantigue started at 2 PM.</p>

		<p>The waste gathered in Buntod were temporarily stored at Pawa's Bantay Dagat (fish warden) HQ for pick up/final deposit to the Municipal Recovery Facility. The nets collected from the waste were gathered by Katibyugan members. In Bantigue and Latasan. Recyclable wastes were gathered by the PO to sell to scrap buyers while the biodegradable wastes were buried in a pit far from the coastline.</p> <p>ZSL IEC (information education and communication) materials were also given to the schools.</p>
<p>Output 3. Business models developed and implemented at buffer zone sites adjacent to mangrove MPAs that diversify community livelihoods and include income from seaweed farming, mussel culture, ranching sea cucumbers/abalone, and mangrove nurseries.</p>	<p>Indicator 1 Feasibility study report of potential sustainable aquaculture ventures at each of the 10 project sites with community feedback by the end of Year 1.</p> <p>Indicator 2 Seaweed farms and mussel farming re-established at sites damaged by earthquake/typhoon by the end of Year 1.</p> <p>Indicator 3 Mangrove nurseries operational in at least 8 project sites by the end of Year 1 and supplying government agencies, NGOs and/or private companies by the end of Year 2.</p> <p>Indicator 4 Pilot studies completed (with biological and economic data recorded as part of local university student research projects) for three trials of grow-out of juvenile abalone and sea cucumbers supplied by SEAFDEC at 2 sites by the end of Year 3.</p> <p>Indicator 5 Business plans in place for five livelihoods linked with coastal protection and sustainable marine resource use connected to an action plan for dissemination and replication by the end of Year 3.</p>	<p>The LGU Ivisan has designated Mangroves in Marine Protected Area (MMPA) covering at least 1,500 hectares encompassing the Villages of Balaring and Agustin Navarra while the neighboring villages of Basiao and Cabugao were zoned as mariculture areas good for oyster farming. The Typhoon that landed in Capiz last 8 November 2013 however wiped out the oyster farms. The Darwin project assisted the oyster farmers to re-establish the oyster farms by conforming to the LGU regulation and introduced the raft method to replace the stake method of oyster farming. An expert on oyster culture was hired by the project to verify the sites designated by the LGU Ivisan as to salinity, temperature, nutrient content and water flow and were found to be favourable (Appendix 12). Site scoping were also conducted to check feasibility of sea cucumber/abalone production in Ivisan but was found negative by a SEAFDEC scientist, this was already reported in Year 1.</p> <p>A lot of the mangroves were destroyed by Typhoon Haiyan in 2013 hence the viability of operating mangrove/beach forest nurseries became an option for at least 6 of the assisted Darwin sites that included, Balaring and Agustin Navarra (Ivisan), Buntod (Panay), Pedada (Ajuy), Oboob (Bantayan) and Kodia (Madrdejos). From the 6 POs engaged in mangrove/ beach forest seedling production, 2 POs (KODFA and BPFA) has been supplying government projects (NGP of the DENR), other NGOs and LGUs with their seedling requirement and has earned the POs sizeable amount of income (Appendix 13). The 4 other POs has been maintaining mangrove nurseries to supply their own requirement for mangrove rehabilitation.</p> <p>In summary, the following were the 5 businesses pursued by the Darwin assisted POs:</p> <ol style="list-style-type: none"> 1. Ecopark management – OMAGIECA (Oboob, Bantayan) and BPFA (Pedada, Ajuy) 2. Mangrove/ beach forest seedling production – BPFA (Pedada, Ajuy) and KODFA (Kodia, Mdrdejos)

		<p>3. Oyster farming - 1Basiao Oyster Farmers Association (Ivisan, Capiz)</p> <p>4. Boneless dilis – New Balaring Mangrove Association</p> <p>5. Driftwood sculpture – Buntod Katibyugan (Panay, Capiz)</p> <p>A workshop was conducted for the 5 POs to formulate the business plans for each of the businesses identified.</p> <p>Several activities were participated/ conducted to strengthen the POs knowledge/ skill on livelihoods one example was the Farmer’s Day Celebration which was spearheaded by the Office of the Provincial Agriculture of Roxas City, Capiz 14 April 2015 where products (e.g boneless dilis and driftwood sculptures) from the Darwin assisted communities were sold. Different packaging sizes of boneless dilis were tested, 750 grams, 500 grams, 250 grams for consumer preference.</p> <p>Another activity is when 25 members of KODFA from Kodia, Madridejos and OMAGEICA from Oboob Bantayan along with representatives from their respective Barangay LGUs and Municipal LGUs visited Panay Island for a study/ cross visit to learn about livelihoods/ mangrove work of Darwin project in Panay project sites, 28 April-2 May 2015. Cross visits were proven effective venue for learning by communities since they personally get to interact with each other.</p> <p>The Darwin CO likewise assisted in strengthening the organizations’ financial management capacity by conducting Basic Accounting for Non Accountants (BANA), 14-16 April 2015.</p>
<p>Activity 3.1 Site visits to 10 villages to conduct habitat mapping, resource assessments and community consultations on livelihood ventures.</p>		<p>In identifying livelihood ventures the project initially looked at existing livelihoods and made an assessment as to gaps to improve it. This was the case of oyster farming and boneless dilis (anchovies). These 2 livelihoods are existing but would need technology enhancement for income improvement.</p> <p>The same strategy was applied to the counterpart sites of Batasan and Matabao in Tubigon, Bohol where a livelihoods inventory together with the community was conducted to identify appropriate livelihoods option (Appendix 14), the result however still need to be analysed and discussed together with the community members.</p>
<p>Activity 3.2 Establishing zoned areas for marine livelihood ventures around MPAs and mangrove forests at each project site, with associated local ordinance(s).</p>		<p>Several problems were encountered in establishing back the oyster farms in Basiao. First is the problem of the presence of fish cages with illegal electrical connections in the areas zoned for the establishment of the new oyster farms. It is taking the LGU a longer time than anticipated to resolve this problem.</p> <p>One solution was to conduct actual mapping of the oyster farms to identify who among the oyster farmers are operating without licenses and how big were the areas occupied. The project provided assistance by providing a separate pouch In the CoMSCA groups in Basiao with P5,000 (€71) specially made available for loan to oyster farmers registration payment.</p>

	<p>Second was the “red tide outbreak in the province of Capiz” that included Ivisan and Panay and started last 28 August 2015 until 12 February 2016 when the Bureau of Fisheries and Aquatic Resources made the declaration that Capiz province is already red tide free, both incidents gravely affected the rebuilding of the oyster farms. The team helped the affected communities by facilitating information flow between government and communities and exploring other alternative livelihoods such as backyard biointensive gardening.</p>
<p>Activity 3.3 Provision of labour, materials and training to rebuild mussel and seaweed farms.</p>	<p><u>Oyster farming</u></p> <p>Several consultations took place to initially identify the 1st batch of oyster beneficiaries and prepare for the production cycle. Last 21 July 2015 the 34 oyster farmers met with Jo Ladja of SEAFDEC and discussed the areas in Basiao best suited for spat collection and grow-out culture as a result of the area study that Jo Ladja did several months before. Advantages of the long line and raft methods were also discussed including the best time to start the spat collection.</p> <p>After the consultation last 21 July 2015. Materials for oyster spat collection were provided to 21 oyster farmers who immediately did their set up as shown in the picture. This 21 oyster farmers who have permits to operate were eventually provided with materials to start building the rafts last 16 August 2015. Appendix 15 is the picture showing the set up for spat collection and the rafts.</p> <p>Part of what was provided included 4 bundles of binders, one sack of oyster shell as initial materials and bamboos for the raft. The counterpart of the recipients was their labor and also the remaining empty oyster shells to fill up the rafts they made.</p> <p>However due to the El Nino phenomenon, the oyster farmers in Basiao are having problems of early cracking/ death of spats due to the very high water temperature in the Cove.</p> <p>No income yet can be reported from oyster farming since no oyster farmer has completed one production cycle.</p> <p><u>Boneless dilis (anchovies) project</u></p> <p>A common working facility for boneless dilis production was constructed starting last 23 November 2015 in partnership with the BRIDGE project (Appendix 16). This was highly recommended by the consultant from UPVIsayas College of Fisheries Fish Processing Technology department to standardize/control product quality. After samples from the previous 2 production cycles were taken and tested by the UPV laboratory for moisture and salt content (Appendix 17). An</p>

operational planning session needs to be conducted by Darwin and BRIDGE to ensure enough supply of the raw material and make the facility functional/self-sustaining generating enough income to pay for the lot rent and utilities in the facility.

An initial income of P20,660 (£295) from sale of the boneless dilis product was reported (Appendix18).

Driftwood sculpture

In order to improve the schedule of driftwood sculpture, a production schedule was developed by the PO in Buntod. Buntod Katibyugan were invited to trade exhibits like the SM Megamall last 28 March 2015 -7 April 2015 with SMART communications where they were able to sell one art piece valued at P8,448 (£121) (VAT inclusive).

During the National Mangrove Conference last 1-3 September 2015, Buntod Katibyugan was contracted by ZSL to produce the souvenir materials for the conference (Appendix 19) valued at P15,000 (£214).

At present driftwood art pieces are on display for sale at SM City and Mary Mart Malls in Iloilo City. Buntod Katibyugan and their art pieces were also featured in the art magazine Landas (Appendix 20).

Eco park management

2 POs (BPFA in Pedada, Ajuy, Iloilo and OMAGIECA in Oboob, Bantayan continue to pursue management of the ecopark as livelihood option, both sites are is still having problems of incomplete facilities/ footwalk/boardwalk but has managed to host visitors coming to the ecopark.

Appendix 21 show the visitor's arrival ain BPFA in 2015. Appendix 22 is the visitors arrival tally for OMAGIECA eco-park in 2015. Income of P85,000 (£1,214) was reported for Pedada eco-park and P 88,257 (£1,261) for OMAGIECA eco-park. However, majority of the latter's income amounting to P82,941 (£1,185) was spent on repairs/ eco-park maintenance leaving OMAGIECA with income of only P5577 (£80). Fund raising activities/ networking were conducted for additional funds. The networking skill of OMAGIECA has earned them a big amount of money enough to fund for improvement of the ecopark facilities i.e. construction of a 60-person capacity restaurant and replacement of 60 meters of bamboo footing to more durable polyethylene pipes with concrete (Appendix 23). A restaurant management training focused on food budgeting and preparation was provided to OMAGIECA in partnership with a local institution in Bantayan, Salazar

	<p>Institute last February 2016. After the training the restaurant servers and cook secured sanitary permits from the Bantayan Rural Health Unit.</p> <p>A Meeting re-strategic planning cum meeting for the proposed completion of Pedada eco-park was called for by the Mayor Juan Alvarez of Ajuy last 12 August 2015 where a proposal amounting to P10Million was developed and submitted to DOT TIEZA for funding starting in June 2016. A separate proposal was developed by BPFa and will be submitted to the Foundation for Philippine Environment (Appendix 24) on increasing capacity of the PO in managing the Pedada ecopark.</p>
<p>Activity 3.4 Provision of materials and training to establish mangrove nurseries.</p>	<p>A training on <i>Sonneratia alba</i> germination was conducted last 15-16 July where members of the POs in Buntod (Panay), Balaring and Agsutin Navarra (Ivisan) and Pedada (Ajuy) participated. This training is part of building the POs capacity to ensure seedlings of this mangrove species for planting in seafront areas is enough. This training was conducted in partnership with the Philippine Tropical Forest Conservation Foundation. A simple guide was developed and distributed by PTFCF as an output of the training.</p> <p>To date 1 PO (NewBAMA) is producing germinated SA seedlings where production volume reached 2,997.</p> <p><u>Kodia seedling production</u></p> <p>The Kodia PO, KODFA was provided with simple water facility, nets and plastic bags to start the seedling production of mangroves and beach forest livelihood project. With the Department of Environment as the main client, KODFA was able to sell 3911 bags of beach forest seedlings (mixed species) valued at P46,932.00 and 1000 bags of <i>Avicennia marina</i> mangrove seedlings valued at P10,000.00 as of December 2015. The earnings were deposited in the PO bank account.</p> <p><u>BPFa seedling production</u></p> <p>The Adventist Development Relief Agency (ADRA), another NGO in Ajuy, provided BPFa with the bamboos, plastic bags, tools to establish the nursery for the mangrove and beach forest seedling production project. The Darwin project provided the plastics for lining and the binders for fixing the bamboos. In 2015 BPFa was able to sell 33,580 seedlings of beachforest (mixed species) valued at P349,480.00 and 32,000 mangrove seedlings (<i>Avicennia marina</i> and <i>Sonneratia alba</i>) valued at P 172,500.00 The earnings are paid directly to the members who share 50 centavos/ seedling to the organization's fund.</p>
<p>Activity 3.5 Development of a directory of mangrove nurseries distributed to government, NGOs and private enterprise (through national business networks).</p>	<p>Directory of mangrove nurseries was developed and distributed thru the support of GiZ supported project and was already reported in Year 1. A recent discussion with the DENR took place where the need to have the POs registered with their agency for inclusion as certified/regular seedling provider.</p>

<p>Activity 3.6 MoA with project plan and budget with SEAFDEC to conduct trials of grow-out of sea cucumber and abalone at two selected sites.</p>	<p>A consultant from SEAFDEC who is an expert on Oyster farming was invited to check viability of proposed oyster raft culture area in Basiao, Ivisan, The area has average depth of 3-4 meters, with salinity of 32 ppt, initial availability of planktons (food source for oyster) hence considered suitable for oyster farming.</p> <p>The results to check potential of mariculture activities such sea cucumber culture and abalone was conducted by SEAFDEC in year 1 and proven to be negative hence not advisable for the community to pursue in Ivisan.</p>
<p>Activity 3.7 Supervision of local university students to monitor grow-out trials at two sites to completion of project theses.</p>	<p>No accomplishment.</p>
<p>Activity 3.8 Preparation, publication and dissemination of business plans for five livelihood options.</p>	<p>A business planning workshop was conducted,18-19 May 2015 with Business Fair Trade Consulting. In attendance were 25 PO participants from</p> <ol style="list-style-type: none"> 1. Buntod Katibyugan driftwood sculpture 2. OMAGIECA Mangrove Ecotourism Park 3. BPF A Seedling production 4. Oyster Farming for Basiao 5. Deboned and dried dilis from selected community members of Basiao and Balaring <p>Appendices 25, 26, 27,28 and 29 are the business plans that were generated from the workshop and is currently being followed by the POs in their business implementation.</p>
<p>Activity 3.9 Publication and dissemination of technical manual, reports and peer-reviewed publications.</p>	<p>A Training of Trainers Manual on Mangrove and Beach Forest Training Course was written and 500 copies were printed. From this initial printing 350 copies were provided to the DENR-Ecosystems Research and Development Bureau. An additional 500 copies are reprinted and funded by the Darwin project (Refer to Appendix 2-Darwin Identity).</p> <p>Reprinting of 1,000 pieces of Imbao flyer distributed to Mangrove TOT Participants and visitors to the Oboob ecopark was provided by the Darwin project.</p> <p>The following posters were also reprinted in 500 copies each thru the Darwin project:</p> <ul style="list-style-type: none"> • Common Mangrove species • What is a Fish Sanctuary? <p>Lay-out of Dugong poster has been done but needs editing prior to printing (Appendix 30).</p>

<p>Output 4</p> <p>>1,000 ha of mangrove, seagrass and coral reef habitats are effectively protected through MPA ordinances and community-based forest management agreements (CBFMAs) in four provinces (Bohol, Bantayan Island (Cebu province), Capiz, Iloilo) by year 3.</p>	<p>Indicator 1 Two new MPAs that include mangroves with legal ordinances in place by the end of year 3 in Bantayan Island (Northern Cebu) and Capiz or Iloilo.</p> <p>Indicator 2 MPA infrastructure restored (marker buoys, guardhouse, patrol boats, signage) in two villages in Bohol (Batasan, Matabao) by Year 1.</p> <p>Indicator 3 CBFMAs in place for 3 villages in Capiz and Iloilo by Year 2 (Pedada, Balaring, Buntod) and underway in 3 further villages (provisionally Matabao, Bohol; Obo-ob, Bantayan; Basio, Capiz).</p> <p>Indicator 4 Two MPAs in Bohol (Batasan, Matabao) expanded in area by the end of Year 3 supported by a local ordinance.</p> <p>Indicator 5 Area of mangrove replanted using ZSL's science-based methodology (Primavera et al., 2013) in 10 project sites by the end of Year 3.</p> <p>Indicator 6 Area of mangrove replanted using ZSL's science-based methodology (Primavera et al., 2013) in 10 project sites by the end of Year 3.</p>	<p>2 new MMPAs are now established in Bantayan however only 1 is covered by an ordinance (i.e. Kodia) while the other one (i.e Oboob) is still in the process of approval. One MMPA in Ivisan continues to be protected by an ordinance.</p> <p>The MMPA guard houses in Matabao and Batasan that were damaged by the killer earthquake in 2013 has completed repairs in Year 1. The old dilapidated marker buoys were replaced with new ones also in year 1. A new patrol boat was constructed and deployed in Batasan also in last year.</p> <p>The 3POs in Panay-Pedada, Balaring and Buntod has persistently followed up application for CBFMAs with the DENR but has not been successful. Pedada PO, BPFMA has to submit papers to satisfy new CBFMA requirements but CBFMA are still pending with the DENR up to the present.</p> <p>2 POs in Bantayan applied for PACBARMA , a tenurial instrument appropriate for community management of mangrove areas in areas already declared as protected by the DENR (in the case of Bantayan it was declared as wildlife area by DENR) instead of CBFMA, application is now at the DENR.</p> <p>The Batasan MPA was expanded from 21 ha coral reef MPA to 209.93 ha including the mangroves and seagrass beds. The Matabao MPA is maintained at 52.6 ha both are protected by local ordinances.</p> <p>Vacant areas suitable for mangrove planting were resurveyed in the Darwin sites and was estimated at 5.12 ha the Bantayan sites do not have available areas suitable for planting as areas damaged by Typhoon Haiyan were rehabilitated thru the Oxfam project in Bantayan in 2014.</p> <p>Aside from the PO planting activities on site to replant vacant/plantable mangrove areas other projects are also doing assisted planting activities e.g PTFCF, BRIDGE, NGP-DENR.</p>
<p>Activity 4.1 Community consultations in Bantayan Island (villages Obo-ob, Kodia), Capiz (Buntod, Balaring) and Iloilo (Pedada) to assess potential sites for new mangrove MPAs.</p>		<p>In the establishment of Mangrove MPAs in the Bantayan sites, the following were the series of activities:</p> <p><u>Village of Kodia</u></p> <ul style="list-style-type: none"> • 1st community consultation happened 20-21 Nov 2014 where draft Kodia MMPA ordinance was presented to the adhoc MPA Management Council. Also presented were the result of dive surveys and map of the proposed MMPA areas. • 2nd community consultation conducted at Kodia chapel, last 14 January 2015 with 81 participants on the Establishment of Marine Protected Area. A sample ordinance was presented and initial agreement on the

	<p>proposed areas by the community was made. In that meeting the components of proposed MPA was defined. Activities in the regulated and core areas were likewise discussed.</p> <ul style="list-style-type: none"> • 3rd community consultation/public hearing on MMPA ordinance done last 22 August 2015, with 104 participants. Presentation and explanation of MMPA map; includes area, boundaries and coverage, Deliberation of provisions or contents of the ordinance thru power point presentation, Finalization of draft ordinance for adoption by the Barangay LGU <p>The Kodia MMPA ordinance was passed by the Kodia Barangay Council after the public hearing was conducted last September and forwarded to Sangguniang Bayan of Madridejos for review and approval 5 October 2015.</p> <p>The Kodia MMPA ordinance was approved by the Sangguniang Bayan on 27 January 2016 (Appendix 31).</p> <p><u>Village of Oboob</u></p> <ul style="list-style-type: none"> • 1st community consultation on the Establishment of MMPA conducted last 15 January 2015 with 82 participants at OMAGIECA Entrance Hall In that meeting the ZSL bio team made presentation of surveys results and proposed MMPA area. A draft ordinance was also presented. • 2nd community consultation simultaneous with the Barangay General Assembly for the for MMPA establishment done last 28 March 2015 at Oboob, Basketball court with 280 people in attendance. Agreement on the proposed MMPA area, activities allowed and not allowed in the different zones- core, regulated zone was discussed. • 3rd community consultation cum Public Hearing to Validate the draft MMPA ordinance was conducted 19 September 2015 with 68 participants. The validated/draft MMPA ordinance will be submitted to the Sangguniang Bayan for approval. • Prepared additional requirements to support the MPA ordinance was submitted for reading to the SB session such as old Barangay resolution of the Sanctuary, minutes of the public hearing conducted, resolution of MFARMC endorsing the Oboob MPA Ordinance.
<p>Activity 4.2 Repairs/construction of new guardhouses – redesigned to incorporate scope for livelihood diversification - with marker buoys and signage in Batasan and Matabao, Bohol.</p>	<p>Repairs of guard houses and replacement of new marker buoys for Batasan and Matabao MPAs were completed and reported in Year 1.</p>

<p>Activity 4.3 Engagement with People's Organisations, local, regional and national government to update and secure CBFMAs for Buntod (Capiz), Balaring (Capiz) and Pedada (Iloilo) following Typhoon Haiyan.</p>	<p>The 3 POs in Panay-Pedada, Balaring and Buntod has persistently followed up application for CBFMAs with the DENR but has not been successful. Pedada PO, BPFA has to submit papers to satisfy new CBFMA requirements but papers are still pending with the DENR up to the present.</p>
<p>Activity 4.4 Establishing and/or strengthening People's Organisation in 3 villages (provisionally Matabao, Bohol; Obo-ob, Bantayan; Basio, Capiz) for CBFMAs.</p>	<p>Inquiries are underway to verify status of an abandoned fishpond in Matabao.</p> <p>Last 18-19 April 2015 an orientation on PACBARMA was conducted by the DENR at Kota Park, Madridejos with KODFA and OMAGIECA members participating.</p> <p>What followed was to prepare the requirements for PACBARMA application that included:</p> <ul style="list-style-type: none"> • Application form (Appendix 32) • PO Certificate of registration • List of officers and members including names of spouses and complete addresses. <p>The PO leaders have to sit in their barangay council sessions for endorsement of requirements for PACBRMA application.</p> <p>In the PAMB meeting last 3 March 2016, the application of OMAGIECA for PACBRMA was read in PAMB meeting. However it was agreed that the result of the reading of the application of PACBRMA will be transferred to the Tañon Strait Protected Seascape (TSPS) according to the Protected Area Superintendent (PASU) because Barangay Oboob belongs to TSPS. A map of protected area to be applied by OMAGIECA for PACBRMA was printed and sent to DENR by email.</p>
<p>Activity 4.5 Provide training and mentorship for People's Organisation through CBFMA process (as documented in Primavera et al., 2013).</p>	<p>DENR conducted PACBARMA orientation for the two POs (OMAGIECA and KODFA) in Bantayan last 2 September 2015. Assistance to the PO in formulating the 3-year strategic plan and the yearly operational plans were provided thereafter to KODFA and OMAGIECA to ensure commitment to PACBARMA applications submitted.</p>
<p>Activity 4.6 Community consultations and endorsement (through village and local government hearings and updated ordinance) of revised, expanded boundaries of MPAs in Batasan and Matabao, Bohol.</p>	<p>A community consultation was conducted last 4 January 2016 with Bunsod (Fish Corral) operators in Batasan to finalize MMPA Map since they are the most affected fishers for MMPA expansion. Finalized Batasan MMPA ordinance The expanded MMPA covers the mangroves and seagrass beds in Batasan (Appendix 33).</p> <p>The Matabao MMPA was not expanded but maintained at 52.6 ha and protected by an ordinance (Appendix 34).</p>

<p>Activity 4.7 Habitat maps, GPS co-ordinates and biological surveys of revised, expanded boundaries of MPAs in Batasan and Matabao, Bohol</p>	<p>Coordinates of the different habitats were taken and maps were generated as shown in Appendices 33 and 34 of Batasan and Matabao MMPA ordinances.</p>										
<p>Activity 4.8 Map areas suitable for mangrove re-planting and implement through communities, using plants grown in community nurseries (using methods described in Primavera et al., 2013).</p>	<p>Nurseries of <i>Sonneratia alba</i> were established in Balaring using the technology introduced during the <i>S. alba</i> Propagation Training for the assisted communities in May and Sep 2015. Nursery trials were also conducted in Pedada and Buntod, but have low seedling survival and limited fruit supply compared to Balaring. However, these sites are continuously producing <i>Avicennia marina</i> in their respective nurseries and will be planting materials for the remaining 5.12 ha of plantable areas in the 3 sites, as reported.</p> <p>An annual monitoring of the breakwater area in Pedada was conducted 19 January 2016 to determine the effects of the structure on coastal erosion and sediment accretion (Appendix 35 Pedada breakwater monitoring). The height of accretion has decreased up to 55 cm in some of the areas compared to the Dec 2014 survey. However, increase in width was observed from a mean of 21 m in Dec 2014 to 27.3 m in the 2016 survey. With the increase in land area of the breakwater accretion, mangrove density decreased. The sediment accretion has started to get firm, thus planting is already suitable in the area.</p>										
<p>Activity 4.9 Using GIS and satellite maps, produce map of area and habitats protected through project.</p>	<p>Maps for all the project sites have been generated (Appendix 36)</p>										
<p>Output 5 10 mangrove MPAs and community-based mangrove forest management plans are being implemented by year 2 from a baseline of 0, with MPAs enforced by 20 legally deputised fish and forest wardens, rated between Levels 3-5 under the national MPA Rating System (MEAT).</p>	<table border="1"> <tr> <td data-bbox="607 799 1077 938"> <p>Indicator 1 MPA and mangrove forest management plans for all sites by Year 3</p> </td> <td data-bbox="1077 799 2078 938"> <p>MPA management plans were developed by the counterpart sites of Batasan (Appendix37) and Matabao (Appendix 38) covering the period 2014-2016.</p> </td> </tr> <tr> <td data-bbox="607 938 1077 1066"> <p>Indicator 2 Project sites featured in relevant local government Coastal Resource Management Plans by Year 3</p> </td> <td data-bbox="1077 938 2078 1066"> <p>The LGU Ivisan has in place a 5-years CRM Plan which was developed and adopted by the SB in 2010 thru the Big Lottery Fund supported project of ZSL. The Tubigon LGU also has a comprehensive CRM plan covering the sites of Matabao and Batasan.</p> </td> </tr> <tr> <td data-bbox="607 1066 1077 1193"> <p>Indicator 3 Deputised fish and forest wardens by Year 3</p> </td> <td data-bbox="1077 1066 2078 1193"> <p>The Municipality of Madridejos in Bantayan has just completed the conduct of Participatory Coastal Resource Appraisal (PCRA) in the 10 coastal barangays including the Darwin site of Kodia. This activity is mainly supported by the GiZ PAME project. A CRM plan for Madridejos will be developed as soon as the PCRA data will completed/ consolidated. The Darwin project provided counterpart funds and deployed the COs assigned in Bantayan to assist.</p> </td> </tr> <tr> <td data-bbox="607 1193 1077 1353"> <p>Indicator 4 Number of patrols, apprehensions and fines conducted by fish and forest wardens documented by Year 3</p> </td> <td data-bbox="1077 1193 2078 1353"> <p>Tubigon has a Municipal Coastal Law Enforcement team composed of 12 members while Ivisan has 12 Bantay Dagat team members. Both teams conduct regular patrol operations in the municipal waters under their LGUs jurisdiction.</p> </td> </tr> <tr> <td data-bbox="607 1353 1077 1449"> <p>Indicator 5 Species and habitat survey data reported annually</p> </td> <td data-bbox="1077 1353 2078 1449"> <p>Habitat surveys are conducted yearly in the Darwin sites and are packaged and written as biological reports.</p> <p>Open access database for MMPA data already available but not on-line.</p> </td> </tr> </table>	<p>Indicator 1 MPA and mangrove forest management plans for all sites by Year 3</p>	<p>MPA management plans were developed by the counterpart sites of Batasan (Appendix37) and Matabao (Appendix 38) covering the period 2014-2016.</p>	<p>Indicator 2 Project sites featured in relevant local government Coastal Resource Management Plans by Year 3</p>	<p>The LGU Ivisan has in place a 5-years CRM Plan which was developed and adopted by the SB in 2010 thru the Big Lottery Fund supported project of ZSL. The Tubigon LGU also has a comprehensive CRM plan covering the sites of Matabao and Batasan.</p>	<p>Indicator 3 Deputised fish and forest wardens by Year 3</p>	<p>The Municipality of Madridejos in Bantayan has just completed the conduct of Participatory Coastal Resource Appraisal (PCRA) in the 10 coastal barangays including the Darwin site of Kodia. This activity is mainly supported by the GiZ PAME project. A CRM plan for Madridejos will be developed as soon as the PCRA data will completed/ consolidated. The Darwin project provided counterpart funds and deployed the COs assigned in Bantayan to assist.</p>	<p>Indicator 4 Number of patrols, apprehensions and fines conducted by fish and forest wardens documented by Year 3</p>	<p>Tubigon has a Municipal Coastal Law Enforcement team composed of 12 members while Ivisan has 12 Bantay Dagat team members. Both teams conduct regular patrol operations in the municipal waters under their LGUs jurisdiction.</p>	<p>Indicator 5 Species and habitat survey data reported annually</p>	<p>Habitat surveys are conducted yearly in the Darwin sites and are packaged and written as biological reports.</p> <p>Open access database for MMPA data already available but not on-line.</p>
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	<p>Indicator 6 Open access database of 14 years of MPA monitoring data online by the end of Year 2</p> <p>Indicator 7 MEAT rating generated annually</p>	<p>The counterpart sites of Batasan and Matabao have conducted an MPA Management Effective Assessment Test using the tool last year and earned ratings of 50 and 48 respectively, all classified as very good.</p>
<p>Activity 5.1 Formation and/or strengthening of MPA management committees</p>		<p>A solid waste management orientation was conducted by LGU staff from Bantayan and Madridejos office last 17 and 23 November 2015 to MPA management committee/PO leaders/BLGU officials of Kodia and Oboob, respectively.</p> <p>Empowering Dispute Resolution and Management process (EDRMP) was conducted for KODFA and OMAGIECA leaders in the succeeding month.</p> <p>The MMCs in the counterpart sites of Batasan and Matabao were reorganized 24 August 2014 and 30 August 2014, respectively. The Tubigon, Bohol MMCs were created in the previous years thru the Selfridges project and has been functional up to the present.</p> <p>The MMCs in the new sites of Kodia and Oboob (Appendix 39) all in Bantayan island were formed 14 and 16 July 2015,</p>
<p>Activity 5.2 Training of Management Committees in MPA management</p>		<p>A refresher training-workshop on Participatory Marine Sanctuary Monitoring (PMSM) was conducted 18-19 November 2015 at Matabao Health Center where members of the MMC for Matabao and Batasan attended.</p> <p>In order for the MMC members in the new sites in Bantayan island to fully understand the concept of an MMPA a re-orientation, was conducted 10-11 March 2016, to Kodia, and Oboob-MMCs. The presentation highlighted the coastal resource assessment survey results in the two barangays. The status of mangroves, corals and seagrass beds and the connectivity of these ecosystems was also discussed.</p>

<p>Activity 5.3 Training of People's Organisations in mangrove ecology and management</p>	<p>During the 2nd National Mangrove Conference representatives from the following POs of Buntod Katibyugan, AMMLAT, Bantigue Fishermens Cooperative, Barangay Gaboc Fishermens Association, New Balaring Mangrove Association, PARIDA, SFA, BLFA and BPFA participated.</p> <p>In the conduct of the recently completed Mangrove Community Structure survey in Panay sites the assistance of PO leaders together with 2 volunteers from UP Visayas College of Fisheries were sought, to wit:</p> <ul style="list-style-type: none"> - 14 March, Balaring with Erdelinda Senadoza of NewBAMA - 15 March, Agustin Navarra with Danny Loberes and BANECA members - 16 March, Buntod Katibyugan with Rex Balatayo - 17 March, Pedada with Ramon Barbato <p>The results of last year's MCS survey was discussed with communities of Agustin Navarra and Balaring ,14 March 2016 where 30 participants attended including Barangay Council representatives. A separate feedback giving session was conducted in Buntod 15 March 2016 where 30 participants composed of PO/BLGU officials attended.</p>
<p>Activity 5.4 Community training in the role of natural ecosystems in natural disaster mitigation</p>	<p>Training workshops on Community Managed Disaster Risk Reduction were conducted in all the Darwin sites:</p> <ul style="list-style-type: none"> • Pedada, Ajuy - 6 Mar 2015 • Oboob and Kodia in Bantayan – 12-15 March 2015 • Buntod, Panay- 4-6 August 2015 • Balaring and Basiao, Ivisan- 27 May 2014, 14 June 2014 <p>The POs and VSLA members in the Darwin sites in Capiz were assisted by the BRIDGE project team in the conduct of Community Managed Disaster Risk Reduction workshops. The activity included Community Mapping, Hazard Mapping, Identifying of elements at risk, Vulnerability Assessment and Capacity Assessment (Appendix 40).</p>
<p>Activity 5.5 Development of 3 year management plans for each site</p>	<p>The management plans for mangroves and MPAs as ecosystems were already included in the CMDRR plans of some of the Darwin sites, e.g Balaring, Ivisan (Appendix 41).</p>
<p>Activity 5.6 Fish/forest warden training with local government agency partners</p>	<p>A municipal coastal law enforcement operational planning was conducted in Tubigon last 26 February 2016. Participants included MFARMC members, Seaborne patrol group, representative from EcoFISH, Coastguard, PNP and PhilDHRRA. Mapping of existing 10 MPAs in Tubigon with spotted common illegal fishing activities was done. Four groups were formed to identify the</p>

	strength, weaknesses, opportunities and threats of the seaborne patrol (Appendix 42).
Activity 5.7 Review of patrols, apprehensions and fines	<p>In 2015, the Ivisan Bantay Dagat team has done 18 apprehensions and has arrested 127 persons but no fines were collected as all cases were referred to the MAO for action (Appendix 43).</p> <p>In the counterpart site of Tubigon 19 apprehensions were conducted where P98,500 (£1,407) was collected as fines (Appendix 44).</p>
Activity 5.8 Bi-annual surveys of MPA and mangrove sites	<p>Coral reef and seagrass surveys were conducted at the Ivisan Fish Sanctuary and Fishery Reserve, Ivisan, Capiz in April 2015 (Appendix 45). The seagrass community structure survey showed an overall increase in mean percent cover from 26.03% in 2014 to 36.39% in 2015. An overall increase in density by 45% was also recorded. This could possibly be a positive outcome of the projects initiatives in the site.</p> <p>Underwater visibility was exceptionally poor in IFSFR, thus change in reef topography from the previous year is evident in the drop in coral complexity index. Coral benthic composition decreased from 27.29% in 2014 to 17.23% in 2015. Dead corals and abiotic components comprise the highest mean percentage cover in IFSFR. Two fixed transects were installed in the reefs of Mabaay and Mahabang Pulo Islands for future monitoring. Fish density has also decreased to 240.8 count/250 m² (poor category based on Hilomen et al 2000) in 2014 to very poor 104.5 count/250 m² in 2015. Baseline fish biomass was estimated at 10.7mt/km². Strict enforcement and further biological monitoring is recommended for this site.</p> <p>Mangrove Community Structure surveys were conducted in March 2016 in Buntod, Balaring and Pedada sites (Appendix 46). The substantial decrease in seedling counts in Pedada suggests increased anthropogenic pressure particularly bagging for nursery development as livelihood of the community. On the other hand, seedling density in Balaring has increased in 2016 as appropriate feedback of stopping bagging of wildings was provided to POs engaged in maintaining nurseries based on the result of the 2015 MCS survey where a drastic decrease in seedlings was recorded. In comparison, Pedada have the most diverse mangrove stand among the three sites with a diversity index between 0.51-0.81. This is followed by Balaring, Ivisan, Capiz with 0.34-0.50. Lowest among the three is Buntod, Panay, Capiz with only 5 species and a value of 0.20-0.36. Total plant density in all project sites changes drastically with the contribution of seedlings. Total mangrove SBA gained a steady increase in Balaring whereas SBA increase was also steady in Buntod and Pedada until in 2016 where a decrease is evident. A steady sapling density is documented for all 3 sites.</p>

Cebu and Bohol sites were surveyed June-July 2015 (Appendix 47). There is no significant change within the two sampling periods in terms of its stand basal area in the mangrove forest of Oboob and Kodia in Bantayan Island. Typhoon Yolanda left a high percentage of partially and totally damaged trees of *Rhizophora* spp. in 2014. Densities of seedlings and saplings of existing mangroves have decreased within the sampling periods. These were apparently bagged for the rehabilitation of other areas. Monitoring in 2015 indicates a recovery among the trees in high % of undamaged trees (no damage). While recovery is seen, massive planting activities of government funded projects use species other than the natural seafloor species such as *Sonneratia alba* and *Avicennia marina*. There appears to be no more area for planting these species as the coastline is predominantly a seagrass habitat, and thereby should not be planted with mangroves.

Bohol sites, Batasan and Matabao have at most 2 species in their area. Again, most common is *Rhizophora stylosa*. Overall density of mangrove in Batasan is higher with 6,100 stems/ha than in Matabao of 4,600 stems/ha. Species diversity is lower in Batasan owing to only 2 species.

The seagrass beds in Bantayan sites have not been badly affected by the typhoon, retaining good cover. The survey results showed that seagrass are dense, diverse (6 genera; *Cymodocea rotundata* dominant) and, considerably still a viable habitat to an important fish species famous to Bantayan, the rabbitfish (Siganidae). Sites in Bohol, particularly have similar number of seagrass genera, with a fair % cover; mostly with *Thalassia hemprichii* along with *Enhalus acoroides* mix. Seagrass beds in all the sites are thriving but somehow needs to be encompassed into more rigid management regimes.

The reefs among the Bantayan sites are found to be in poor condition throughout the sampling periods. Per cent live hard coral is low, and dead coral % cover is high. Low complexity indices of both sites indicate of the areas being disturbed over time, not to mention Typhoon Yolanda. The conditions of the area were observed to be a result of long term exploitation of the reefs (destructive fishing activities), rather than due solely to the impacts of typhoon Yolanda. Fish densities and biomass is poor as an effect of habitat loss and disturbance. On the side of Bohol, coral reefs in the two sites have been affected by the earthquake in 2013. While Batasan has established conditions of its reefs over the years through enforcement, a drastic decrease has been seen after the earthquake. This is also the same with Matabao, being located within the same earthquake-hit region. Fish densities and biomass is also low after having been impacted by the calamity.

Activity 5.9 Open access database of MPA monitoring data (over past 14 years)	An open access database is available but is not yet on-line.
Activity 5.10 Submission of data for MEAT ratings	<p>Matabao scored 48 out of 84 points in the MEAT last year and is classified very good. Important elements in management focus that needs to be considered is updating its MPA management plan and activities for IEC, Financing and Monitoring & Evaluation (Appendix 48).</p> <p>Batasan scored 50 out of 84 points in the MEAT last year and is also classified very good. Elements that need improvement are activities for Site Development, IEC and monitoring and evaluation. Active participation from PO and community members in coastal law Enforcement is encouraged and must be considered by the management body to cultivate sense of ownership. Programmatic fund sourcing and regular allocation from LGU will seriously be planned by the management body considering that this MPA has been established thru them (Appendix 49).</p>
Activity 5.11 Publication and dissemination of results at national conferences, workshops and in peer-reviewed publications.	<p>A presentation on “Preliminary Assessment of Post Haiyan Mangrove Damage and Recovery in Eastern Samar, Central Philippines was done at the University of San Carlos, Cebu City 4th National Conference on Environmental Science, 27-29 November 2015.</p> <p>Proceedings of the 2nd National Mangrove Conference “Science-based Approaches to Mangrove and Beach Forest Rehabilitation: Sharing Experiences and Lessons on post-Yolanda Mangrove Recovery Work” 1-3 September 2015.</p> <p>A scientific discussion workshop happened 16-17 February 2015 participated by 43 scientists, ZSL COs and biologists on MPAs: Ensuring ecological integrity, connectivity and resilience for biodiversity conservation (Appendix 50).</p> <p>Exhibits of ZSL’s IEC materials in the following activities:</p> <ul style="list-style-type: none"> • 4th National Conference on Environmental Science, Cebu City, 27-29 November 2015. • International Bio-diversity Week sponsored by the Iloilo Provincial Government-Iloilo City, 30 November- 3 December 2015. • Visayan Regional Consultative Group Meeting, Foundation for the Philippine Environment, Mandaue City, Cebu 3-4 March 2016. • Regional Workshop on Reducing Impact of Natural Hazards Using Ecosystems for Coastal Protection, Project on Coastal Protection of Tacloban City and Palo, Wetlands International, City Hall, Tacloban City, 4 February 2016. • National Workshop on Reducing Impact of Natural Hazards Using Ecosystems for Coastal Protection Project on Coastal Protection of

		<p>Tacloban City and Palo, Wetlands International, DENR Biodiversity Management Bureau, Parks and Wildlife Center, Quezon City 9 Feb 2016.</p> <p>Heather Koldewey and Jurgenne Primavera co-organised the 'Turning the tide on mangrove loss' international symposium with the IUCN Mangrove Specialist Group, ZSL and Xiamen University, China 11-16 November 2015.</p>
<p>Output 6</p> <p>Side event at CBD SBSTTAs and/or COP and presentation at the 2014 IUCN World Parks Congress provide the forum for dissemination, that result in stakeholder cross-visits and training sessions to replicate the approach in 1 DFID priority countries with mangroves.</p>	<p>Indicator 1 Project information presented at CBD SBSTTA and/or COP by Year 3</p> <p>Indicator 2 Project presented at 2014 IUCN World Parks Congress by Year 1</p> <p>Indicator 3 One stakeholder cross-visit and training session in 1 DFID priority country with mangroves by Year 3.</p>	<p>Good progress was made linking with other relevant international agencies e.g. RARE, CORDAID, IIRR, GIZ, with a view to a cross-visit and training session for a DFID priority country in the coming year.</p>
<p>Activity 6.1 Inclusion of project activities in Philippines National Report to the CBD.</p>		<p>The NBSAP was just finished in Year 2 so we are planning this for Year 3.</p>
<p>Activity 6.2 Submission, acceptance and delivery of presentation at 2014 IUCN World Parks Congress – Session on Ecological Resilience, Stream 1.</p>		<p>Completed</p>
<p>Activity 6.3 Cross-visit and training session to 1 DFID priority country</p>		<p>Planned for Year 3</p>

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal/Impact</p> <p>Community-based marine protection in the Philippines contributes to disaster recovery and resilience to natural disasters while helping meet national and international targets (10% by 2020) through habitat and livelihoods diversification.</p>			
<p>Purpose/Outcome</p> <p>1,000ha of coastal habitats across four provinces in the Philippines are effectively protected and sustainably managed by communities, reversing declining trends in local fisheries, and rebuilding for more resilient livelihoods.</p>	<p>Indicator 1 At least 200 ha of mangroves, seagrasses and coral reefs are protected in two new MPAs (Bantayan (Cebu province), Iloilo/Capiz) and at least 800 ha are protected through restoring and strengthening two existing MPAs and six mangrove forest sites in four provinces (Bohol, Northern Cebu, Capiz, Iloilo), including using government tenurial instruments (Community-based Forest Management Agreements; CBFMAs), making a total of 1,000 ha effectively protected by year 3 from a baseline of 60 ha.</p> <p>Indicator 2 Current declines in fish biomass and habitat cover for corals and mangroves within new and existing MPAs will be halted or reversed by year 3.</p> <p>Indicator 3 Set baselines in year 1 through household baseline surveys and achieve an average of at least 20% improvement in locally-defined wellbeing scores and material style of life indices for 2,000 households within the 10 target villages by year 3. Wellbeing will be assessed using subjective quality of life approaches applied to fisheries and quantitative indicators (e.g. the proportion of households with tin roofs).</p>	<p>Maps and GIS database of sites, training workshop reports, MPA ordinances, CBFMAs awarded, fish/forest warden names and legal certificates of registration.</p> <p>MPA survey reports, MPA open access database, MPA local monitoring team reports, community feedback.</p> <p>Socioeconomic survey reports.</p> <p>List of members of VSLAs, reports from training workshops, savings books, annual report on savings and loans.</p> <p>Tons of nets collected, accounts of funds received by VSLAs for nets sold.</p> <p>Household surveys, case studies, significant change stories and photos, progress reports</p> <p>Membership lists of MPA management committees, training reports, fish/forest warden names and legal certificates of registration, records of poaching incidents and apprehensions, MEAT evaluation scores.</p> <p>2014 World Parks Congress resolutions, 2016 CBD Philippines</p>	<p>Government bureaucracy and political processes e.g. elections do not significantly delay implementation at project sites.</p> <p>Further natural disasters, particularly tropical storms, typhoons and earthquakes do not hinder significantly project sites or activities.</p> <p>Communities can be trained technically to implement stock enhancement for sea cucumbers, sea urchins and/or abalone to a level that ensures income exceeds expenditure.</p> <p>The Philippines model developed in this project is broadly applicable to other DFID priority countries with mangroves.</p>

	<p>Indicator 4 Number of households in VSLAs increases from 100 at project start to 320 by year 3, with an average of £20 each in savings (based on experience in Bohol).</p> <p>Indicator 5 Communities assessed and where feasible, linked up to Net-Works business model which involves collecting an average of 200kg of nets per month per site for recycling (equivalent to £560 per village per year in communities where average household income is ~£110 per month) by year 3.</p> <p>Indicator 6 All 10 communities have diversified livelihoods to include sustainable enterprises (e.g. NetWorks, aquaculture, mangrove enterprises) with an increase from an average of 2 to 2.5 livelihoods across the 2000 households in the target villages by year 3.</p> <p>Indicator 7 4 project MPAs are independently scored from Level 3 (Sustained) to Level 4 (Institutionalized) under the National MPA Effectiveness Assessment Tool (MEAT) for effective management and enforcement by year 3 (none scored prior to project).</p> <p>Indicator 8 This Philippines model for sustainable community-based MPAs that encompass mangrove habitats is replicated in at least 1 site in the Philippines and in at least 1 DFID priority countries by the end of Year 3 through invited cross-visits with project staff.</p>	<p>national report, cross-visit reports, training reports, training manuals disseminated.</p>	
<p>Output 1. 10 VSLAs implemented by year 2, and this number >doubled through the</p>	<p>Indicator 1 At least 10 VSLAs with 15-25 members established through People's Organisations or MPA management committees in project</p>	<p>MPA Management Committee and People's Organisation records and documents (e.g. MPA management</p>	<p>Infrastructure damage from earthquake/typhoon does not hamper project activities, beyond that known and planned for from site visits and</p>

<p>Village Agent model by year 3, increasing the financial security of villagers in four provinces (Bohol, Cebu, Iloilo, Capiz) and acting as a platform for community engagement in the management and protection of coastal ecosystems.</p>	<p>sites by year 1.</p> <p>Indicator 2 At least 1 additional VSLA established in each of the 10 total sites through Village Agents by year 3, taking the total number of households engaged in VSLAs to at least 320.</p> <p>Indicator 3 Households involved in VSLAs see improvements in living conditions (measured through socioeconomic surveys as material style of life and locally defined wellbeing indicators that are identified by socioeconomic/wellbeing assessments) by year 3.</p> <p>Indicator 4 Female household heads report reduced frequency in the use of food coping strategies, reflecting improved food security, by year 3.</p> <p>Indicator 5 Households engaged in VSLAs saving at least US\$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.</p> <p>Indicator 6 Households engaged in VSLAs saving at least US\$20 per year and investing 25% of savings and loans in new enterprises (non-capture fisheries and non-destructive) by year 3.</p>	<p>plans).</p> <p>Biological and socioeconomic survey reports.</p> <p>Training manuals.</p> <p>Transaction records for VSLAs (savings books).</p> <p>Open access database of MPA monitoring surveys for up to 14 years.</p> <p>GIS and satellite maps of project sites.</p> <p>Student project theses.</p> <p>Annual project progress reports.</p> <p>Peer-reviewed papers.</p> <p>Website information, blogs, social media, images and videos</p>	<p>assessments.</p> <p>Communities have the will to manage their natural resources effectively in the light of recent natural disasters.</p> <p>Sufficient numbers of households are interested and able to engage in VSLAs.</p> <p>Appropriate enterprises can be developed that can absorb sufficient labour and are more economical than fishing.</p> <p>Aquaculture ventures do not negatively impact MPAs or mangrove habitats.</p> <p>Households that engage in VSLAs and new enterprises include fishers.</p>
<p>Output 2.</p> <p>The Net-Works project is operating in at least 3 of the target villages in Bantayan (Cebu province) and Bohol, with villages feeding into the two sustainable business units (one in Bohol, one in Bantayan) that engage 20 communities in collecting an average of 200kg of discarded fishing nets per month and per village by year</p>	<p>Indicator 1 At least 11 tons of discarded nets collected from 5 villages annually and fed into global supply chain through Interface.</p> <p>Indicator 2 100 households earning additional income from NetWorks in year 2 and 300 households earning additional income from year 2.</p> <p>Indicator 3 Business model of Net-</p>		

<p>3; cleaning beaches, preventing ghost fishing, and providing sustainable income.</p>	<p>Works generates sufficient funds to support a local co-ordinator salary by Year 2.</p> <p>Indicator 4 Annual coastal clean-up event implemented in 10 villages.</p>		
<p>Output 3.</p> <p>Business models developed and implemented at buffer zone sites adjacent to mangrove MPAs that diversify community livelihoods and include income from seaweed farming, mussel culture, ranching sea cucumbers/abalone, and mangrove nurseries.</p>	<p>Indicator 1 Feasibility study report of potential sustainable aquaculture ventures at each of the 10 project sites with community feedback by the end of Year 1.</p> <p>Indicator 2 Seaweed farms and mussel farming re-established at sites damaged by earthquake/typhoon by the end of Year 1.</p> <p>Indicator 3 Mangrove nurseries operational in at least 8 project sites by the end of Year 1 and supplying government agencies, NGOs and/or private companies by the end of Year 2.</p> <p>Indicator 4 Pilot studies completed (with biological and economic data recorded as part of local university student research projects) for three trials of grow-out of juvenile abalone and sea cucumbers supplied by SEAFDEC at 2 sites by the end of Year 3.</p> <p>Indicator 5 Business plans in place for five livelihoods linked with coastal protection and sustainable marine resource use connected to an action plan for dissemination and replication by the end of Year 3.</p>		
<p>Output 4</p> <p>>1,000 ha of mangrove, seagrass and coral reef habitats are effectively protected through MPA ordinances and community-based forest management</p>	<p>Indicator 1 Two new MPAs that include mangroves with legal ordinances in place by the end of year 3 in Bantayan Island (Northern Cebu) and Capiz or Iloilo.</p>		

<p>agreements (CBFMAs) in four provinces (Bohol, Bantayan Island (Cebu province), Capiz, Iloilo) by year 3.</p>	<p>Indicator 2 MPA infrastructure restored (marker buoys, guardhouse, patrol boats, signage) in two villages in Bohol (Batasan, Matabao) by Year 1.</p> <p>Indicator 3 CBFMAs in place for 3 villages in Capiz and Iloilo by Year 2 (Pedada, Balaring, Buntod) and underway in 3 further villages (provisionally Matabao, Bohol; Obo-ob, Bantayan; Basio, Capiz).</p> <p>Indicator 4 Two MPAs in Bohol (Batasan, Matabao) expanded in area by the end of Year 3 supported by a local ordinance.</p> <p>Indicator 5 Area of mangrove replanted using ZSL's science-based methodology (Primavera et al., 2013) in 10 project sites by the end of Year 3.</p> <p>Indicator 6 Area of mangrove replanted using ZSL's science-based methodology (Primavera et al., 2013) in 10 project sites by the end of Year 3.</p>		
<p>Output 5</p> <p>7 (note this has been changed from 10 following biological assessments) mangrove MPAs and community-based mangrove forest management plans are being implemented by year 2 from a baseline of 0, with MPAs enforced by 20 legally deputised fish and forest wardens, rated between Levels 3-5 under the national MPA Rating System (MEAT).</p>	<p>Indicator 1 MPA and mangrove forest management plans for all sites by Year 3</p> <p>Indicator 2 Project sites featured in relevant local government Coastal Resource Management Plans by Year 3</p> <p>Indicator 3 Deputised fish and forest wardens by Year 3</p> <p>Indicator 4 Number of patrols, apprehensions and fines conducted by fish and forest wardens documented by Year 3</p> <p>Indicator 5 Species and habitat survey</p>		

	<p>data reported annually</p> <p>Indicator 6 Open access database of 14 years of MPA monitoring data online by the end of Year 2</p> <p>Indicator 7 MEAT rating generated annually</p>		
<p>Output 6</p> <p>Side event at CBD SBSTTAs and/or COP and presentation at the 2014 IUCN World Parks Congress provide the forum for dissemination, that result in stakeholder cross-visits and training sessions to replicate the approach in 1 DFID priority countries with mangroves.</p>	<p>Indicator 1 Project information presented at CBD SBSTTA and/or COP by Year 3</p> <p>Indicator 2 Project presented at 2014 IUCN World Parks Congress by Year 1</p> <p>Indicator 3 One stakeholder cross-visit and training session in 1 DFID priority country with mangroves by Year 3.</p>		

Annex 3 Standard Measures

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
2	MSc projects: Ashley Perl from Stockholm Resilience Centre completed her MSc project on 'The relationship between community-based management and vulnerability: A case of community-based MPAs in the Philippines impacted by an earthquake'	Female	Canada	0	1		1	1
2	PhD projects: Clare Duncan from Institute of Zoology (ZSL)/University College London completed her fieldwork and community/LGU feedback sessions as part of her PhD 'Planning for change: Managing mangroves in the face of climate change'. Dan Bayley from UCL/Natural History Museum/ZSL analysed data from the MPAs for his 1 st year of his PhD 'Global analysis of changes in diversity and ecosystem structure of tropical coral reefs due to localised human impacts'.	Female; Male	British	0	2		2	2
3	Training of fish wardens		Philippines	18	18		18	Tbd as government approach to training is changing
6A	Members of People's Organizations associated with the project	350 (52%) are men and 322 (48%) are women	Philippines	672	672		672	~700
6A	VSLAs formed across 4 provinces (Cebu, Bohol, Iloilo and Capiz)	Male and female membership to the VSLA was 41 : 166 male : female in Year 1 and 69 : 236 in Year 2.	Philippines	207 household members	272 household members Number of HH in Capiz - 130 Number of HH in Cebu - 55 Number of HH in Bohol - 70 Number of HH in Iloilo- 17		272	320
6A	Village agents trained in VSLAs		Philippines	6	47		53	~50

	formation							
6A	Local research assistants trained in socioeconomic surveys		Philippines	40	0		40	40
6A	On site VSLA training.		Philippines	45	47		92	
6A	Livelihood training 60 oyster farmers of Basiao, Ivisan underwent a 2 days training with the expert from SEAFDEC		Philippines	60				
6A	Enhanced technology training was provided to 84 boneless dilis dryers in Basiao and Balarang		Philippines	84				
6A	ZSL biologist and Community Organiser technical training through participation in courses/workshops		Philippines	8	5		13	
7	Simplified community-based mangrove rehabilitation manual; Sustainable mangrove clam harvesting training leaflet in Year 1; Training of Trainers Manual; seagrass and MPA posters (Year 2)	Female lead author	Philippines lead author	2	3		5	6
10	Publications: Mangrove Field Guide (year 1),	Female lead author	Philippines lead author	1	0		1	1
14 A	Workshops: MPA Connectivity Workshop (Year 1); VSLA workshop (Year 1). National Mangrove Conference September 2015, international Mangrove Symposium Xiamen, China (Year 2)		Philippines UK Cameroon Canada	24; 14	255		293	
14B	A VSLA Training of Trainers workshop		Philippines	31	6		37	
22	MPAs implemented			1,600 ha	2,111.43 ha		2,111.43 ha	~2,200 ha
22	CBFMA applications for NewBama (43 ha), Buntod Katibyugan (13 ha) and BPFA (43 ha) were submitted which, if approved, will require community monitoring			3 CBFMAs (once approved)	3 CBFMAs (once approved), 1x PACBARMA		4	4

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. website link or publisher)
2016 Tidal Calendar	Calendar	Primavera, J., Loma, R.J.A., Coching, J.D.	Female	Philippines	Maki Press, Iloilo City	Hard copy available on request
Manual for Trainers Mangrove and Beach Forest Rehabilitation and Conservation	Manual	Primavera, J.H.P, Savaris, J.P., Loma, R.J.A., Coching, J.D., Montilijao, C.L.	Female	Philippines	Maki Press, Iloilo City	www.zsl.org/mangroves
Proceedings of the 2 nd National Mangrove Conference	Proceedings	Labrado, G., Sadio, V.	Male	Philippines	e-file only	www.zsl.org/mangroves
No planting on Seagrass Beds	Poster	Loma, R.J.A.	Female	Philippines	Maki Press, Iloilo City	Hard copy available on request
Common Mangrove Species	Poster	Primavera, J.H.P.	Female	Philippines	Maki Press, Iloilo City	Hard copy available on request
What is a Fish Sanctuary?	Poster	Loma, R.J.A.	Female	Philippines	Maki Press, Iloilo City	Hard copy available on request
Policy challenges and opportunities for the conservation of mangrove forests: a Southeast Asian perspective.	Peer-reviewed publication	Friess, D.A., Thompson, B.S., Brown, B., Amir, A.A., Cameron, C., Koldewey, H.J., Sasmito, S.D., Sidek, F. (2015)	Male	British	Conservation Biology	
Community-based Mangrove Rehabilitation Manual	Manual	Primavera JH, Savaris JP, Bajoyo B, Coching, JD, Curnick DJ, Golbeque RL, Guzman AT, Henderin JQ, Joven RV, Loma RA, Koldewey, HJ (2015)	Female	Philippines	Philippines Tropical Forest Foundation, Manila	http://www.ptfcf.org/data/uploads/mangrove-rehab_training-manual.pdf
*Sustainable harvesting of Imbao, <i>Anodontia philippiana</i>	Leaflet	Primavera, J.H., Lebata-Ramos, M.J.H (2015)	Female	Philippines	ZSL Philippines, Iloilo City	www.zsl.org/mangroves (Annex 53)
Field guide to Philippine mangroves	Identification guide	Primavera, J.H. (2015)	Female	Philippines	Philippines Tropical Forest Foundation, Manila	http://www.ptfcf.org/data/uploads/field-guide-to-phil.-mangroves.pdf

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

Supplementary annexes of project achievements are provided in the following Dropbox folder. An invitation to Darwin-Projects@ltsi.co.uk to this folder has been sent on submission of this report.

<https://www.dropbox.com/home/Darwin%202015%20annexes/PDF's>

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	No
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? 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	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	