



Darwin Initiative Main Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

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Darwin Project Information

Project reference	24-027
Project title	Applying business models to sustain socio-ecological resilience in coastal Philippines
Host country/ies	Philippines
Contract holder institution	Zoological Society of London
Partner institution(s)	Local Government Units of the Municipality of Ajuy & Concepcion in Iloilo Province; Local Government Units of the Municipality of Ivisan, Province of Capiz; Local Government Units of the Municipality of Ibajay and Tangalan, Province of Aklan. Nigel Stansfield, President, EMEA, Interface Inc., UK
Darwin grant value	£399,584
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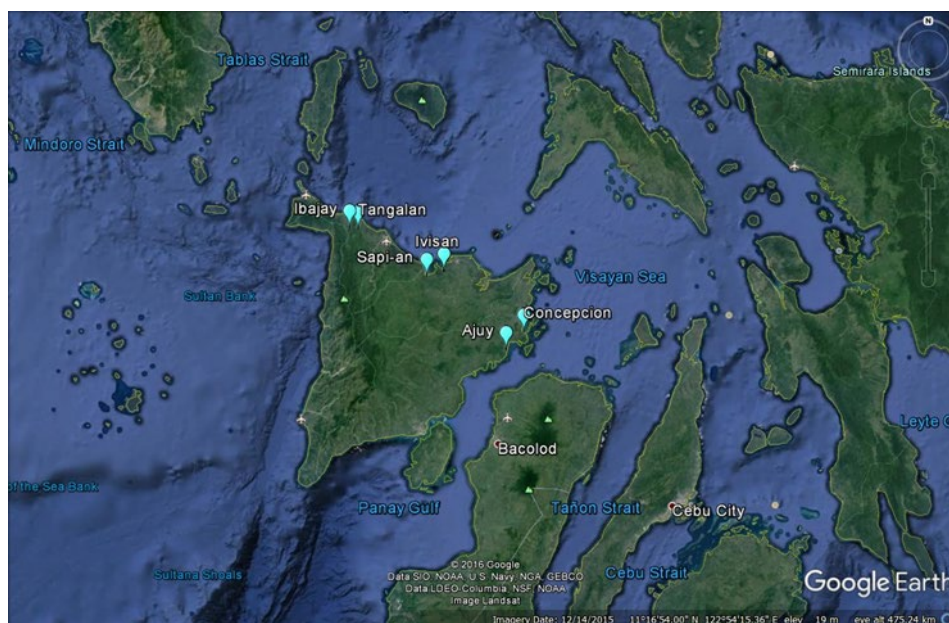
1. Project rationale

The Darwin Initiative supported innovative approaches to enhance socio-ecological resilience to disasters in the Philippines, including MMPAs and Net-Works™ (21-010). This project builds on these experiences and successes to build business models that break pervasive donor dependence in community-based marine conservation, creating fully scalable solutions.

The project addresses key issues that are predicting effectiveness of MPAs as biodiversity conservation and fisheries management tools: size, habitat composition, sustainability. Under existing Philippines laws, coastal municipalities and cities are mandated to set aside at least 15% of municipal waters (i.e. 15 kilometres from general coastlines seaward). However, the

total area declared protected at present remains very low at 0.5% because of their small size (average 12ha of no-take zone). And, most of these MPAs are dominantly coral reefs. Mangroves, seagrass, mudflats, and other habitat types crucial to life cycles of fisheries resources are unprotected, leaving them highly vulnerable to conversion.

Financing to support effective management of MPAs in the long-term is also cross-cutting issue. A study suggests that only 12% of declared MPAs in the Philippines are effectively enforced. All rest exist as paper parks mainly because of the lack sustainable financing and lack of community buy in. This project is aiming to catalyse a new generation of MPAs that are bigger (i.e. with at least 200-ha. NTZ), diversified in terms of habitat types, and financially sustainable. ZSL has demonstrated through the Net-Works business model there are alternative options to help secure access for sources of financing for MPA management in the long-term. Through the diversification of the Net-Works business model, we are aiming to support these idealised MPAs through the income generated by the business model itself, veering away from conventional donor-dependent set up. During this first year, we have introduced the term iMPA which describes the 'ideal MPA' (but also interpreted as innovative, inclusive, improved) to describe these MPAs that are bigger in size, better managed, and sustainably financed using the Net-Works business model. We have therefore phased out the term MMPA (which referred to Mangroves in MPAs) which did not properly reflect our new approach. The project is implemented in three bay-scapes in three provinces on Panay Island in the western Visayas, Philippines and targets local communities and local governments within these sites (map below) and businesses through global supply chain development. The target communities live below the Philippines' poverty line and are extremely vulnerable to declining marine resources and increasing typhoons. Our interventions aim for these community members, especially women, to have diversified livelihoods, access to fairer and inclusive markets, and a mechanism and opportunity to engage meaningfully in conservation activities.



2. Project partnerships

Key project partners include the local government units (LGUs) of Ibajay and Tangalan in Aklan, Ivisan in Capiz, and Ajuy and Concepcion in Iloilo. By end of Year1, we have formal memoranda of agreement (MOA) with three LGUs and draft MOA with two LGUs are close to being signed. We are working closely with 27 village LGUs in the 14 iMPA sites we have selected. We also partner with the following people's organizations (POs) already existing in local communities and 44 VSLAs we have organized and mentored across the 14 selected iMPA sites:

1. Barangay Pedada Fisherfolks Associations (BPFA), in Ajuy
2. Talotoan Farmers and Fisherfolks Association (TAFFA) in Concepcion
3. Tambaliza Small Fishers Association (TASFA) in Concepcion
4. Association of of Igbon Savers for Sustainable Fisheries (AsiSUF)

5. New Balarang Mangrove Association (NewBAMA), in Ivisan
6. Barangay Agustin Navarra Environmental Conservation Association (BANECA), in Ivisan
7. Basiao Oyster Farmers Association (BOFA), in Ivisan
8. Bugtong-bato Fisherfolk Association (BFA), in Ibajay
9. Naisud Mangrove and Aquatic Organization (NAMAQO), in Ibajay

We are also collaborating with principal government agencies: Department of Agriculture-Bureau of Fisheries and Aquatic Resources and the Department of Environment and Natural Resources (DENR) national and regional offices. For instance, DA-BFAR provided seaweed production inputs to communities we work with in Concepcion and Ajuy through our facilitation. The initial batch of seaweed farmers were enrolled in a DA-BFAR subsidized insurance program for small-scale seaweed farmers, which is being implemented directly by the Philippine Crop Insurance Corporation. We consulted with DENR on the technical description of the Pan de Azucar Protected Seascape, where the Tambaliza iMPA is sub-system. DENR has also engaged ZSL to train their staff through our Mangrove and Beach Forest Training Course. We have collaborated with the Southeast Asia Fisheries Development Centre for access to training, technical support, and access to high-yielding tissue cultured seaweed plantlets. We are now in the process of formalizing our partnership with SEAFDEC through a MOA.

In this first year, we have also forged collaborations with local and international NGOs, such as Adventist Development and Relief Agency, Save the Children, Conservation International-Philippines, Iloilo Caucus of Development NGOs (ICODE), and World Vision-Philippines. In the last three years, we have co-convened a national village savings and loan association (VLSA) summit in the Philippines with World Vision and we are an active member in the network of non-profit organizations that are catalysing the formation of VSLAs.

We are using Net-Works as a practical solution and case study in the campaign against plastics in the ocean, we have collaborations with the UNDP-GEF assisted Strengthening the Marine Protected Areas to Conserve Key Marine Biodiversity Areas in the Philippines (SMARTSeas PH Project). We are also piloting the implementation of the Trash for Health (T4H) campaign in partnership with the local government unit of Concepcion, Iloilo, with the small grant we have from the American Chemistry Council.

3. Project progress

3.1 Progress in carrying out project Activities

Overall, we feel that we have made good progress in carrying out the project activities, with the project generally being on target. We consolidated the concept of our new and improved MMPAs with TURF supported by the diversified Net-Works business model as an iMPA – where “i” stands for ideal, innovative, inspiring, integrated. The highlight of this first year was the legal declaration of the first iMPA in Tambaliza of 753 ha, with 203 ha of no-take, and the establishment of the MPA Management Council. This represents a huge shift in thinking by communities and proof of concept, as the average MPA size nationally is currently 15 ha of which 12 ha is no-take zone. Therefore, it represents a 16-fold increase in the size of no-take zones, and 50-fold increase in total area, and puts Tambaliza in the top 3% of all MPAs in the Philippines in terms of size. Community acceptance of the iMPA was driven by the development of a new participatory planning approach based around linking the iMPA to local ecological knowledge and community objectives, and supported by social marketing techniques and materials.

The biggest challenges that we have encountered are:

1. Significant under-budgeting for some project activities, which required us to secure additional matched funding to deliver these activities. We have developed a financing plan in collaboration with potential impact investors interested in investing in our model to help deliver the anticipated scale, consistent with our overall project objective of breaking donor dependence, and adjusted our strategy for the next two years in order to facilitate the delivery of our outcomes.
2. Erroneous expectations and assumptions around the potential for Plan Vivo in sustaining mangrove conservation owing to the global state of blue carbon science and

lack of knowledge around soil carbon fluxes. We have identified a need and opportunity to build on the soil carbon science in our sites that could in future unlock the potential for Plan Vivo to act as a mechanism for increasing protection of mangrove forests. We will therefore need to submit a change request on this issue to alter our measurable indicators for output 4.

Despite these challenges we were able to complete most of the planned activities in year 1, and to advance some activities that were initially planned for year 2.

Output 1 – effective iMPAs established

We laid the groundwork well for the project through establishing memoranda of agreement with the relevant municipal governments in Tangalan and Ibajay (Aklan Province) and Ajuy in Iloilo Province. The remaining MOAs (Ivisan in Capiz Province and Concepcion, Iloilo) are in various stages of review, and we anticipate they will all be completed in the first quarter of Year 2.

Our rapid rural appraisal techniques were used to profile 47 villages across the three target bay-scapes from which 27 villages were selected for inclusion to meet the target of 15 iMPAs. During this appraisal process, we identified the importance of clustering villages to develop a co-management regime for this larger iMPAs. We also had to drop one site (Sapian, Capiz) as its municipal waters are too small and intensively used to be a viable iMPA. Going forward, we will therefore be targeting 14 versus 15 iMPAs by the end of Yr3.

Our standardised biological methods have been used to conduct rapid habitat assessments across all 14 iMPA sites (27 villages). From there, we selected three “bright spot” sites to act as demonstration sites that act as a platform for replication to the remaining 11 sites within the three bay-scapes. Our profiling characterised communities in terms of: a) buy in to coastal resource management and MPA initiatives, b) presence of social infrastructures, e.g. people’s organizations and VLSAs, that can help advance project objectives, c) social enterprise development potential, especially eco-seaweed farming site suitability and potential size of production area, d) and ZSL work history.

We successfully initiated iMPAs in the three demonstration communities, including site selection, ordinance drafting, MPA Management Council creation and planning. Our three demonstration sites are: 1) Tambaliza, Concepcion, 2) Salvacion-Malangabang, Concepcion, and 3) Punta Buri, Ajuy. The ordinance for Tambaliza demonstration iMPA has been formally approved by the municipal Local Government Unit. A detailed thematic GIS map of Tambaliza, Concepcion iMPA was prepared, showing the different spatial zones within the 753-ha iMPA. (**Annex 2**). In Malangbang-Salavacion and Punta Buri demonstration sites, areas for iMPAs and no-take zones have been proposed by the community and are currently in the process of broader community consultations prior to drafting of ordinances. At the remaining 11 sites, baseline work was done through community engagement and focus group discussions linked to participatory resource mapping for the selection of iMPAs. In Yr2, activities will focus on successful delivery of the iMPAs in the three demonstration sites, and using those as models to enable more rapid scaling to the remaining 11 sites in year 3.

Our community organizing team also sustained extension of mentoring support to 41 existing VSLAs in five target municipalities, and catalysed the formation and mentoring of 3 new VSLAs across the target bay-scapes and two peoples organizations in Concepcion to prepare social infrastructure and build trust and support.

We used existing match funding from the American Chemistry Council and secured additional match funding from the Adventist Development and Relief Agency (ADRA) and National Geographic Society to support procurement and installation of essential iMPA enforcement support infrastructures and assets, particularly guardhouse, patrol boats, marker buoys, communication equipment, signages and billboards, for the three demonstration iMPAs.

The main activity that fell behind schedule was the socioeconomic baseline surveys, as a result of a budget shortfall. We have now secured sufficient funds to complete these baseline surveys in the three demonstration iMPAs, and anticipate this being completed early in Q1 of year 2.

Output 2 – TURFS introduced within iMPAs.

Although activities under Output 2 were only initially planned for year 2, we made progress on the identification and demarcation of buffer zones for TURFs in the Tambaliza iMPA, consisting

of 83ha (see also **Annex 2**). The discussion around TURFS has proved to be a very important consideration that gains community support for the concept of the iMPA at the planning phases. Additionally, we have progressed the design for the construction of seaweed drying platforms linked to guardhouses with architects (Activity 2.4), and have secured matched funding for the construction of this guardhouse in Tambaliza iMPA from the National Geographic Society.

Output 3 – Diversified Net-Works business model

We have 39 VSLAs across six of the iMPAs which all now have environmental funds integrated where members make small weekly contributions that currently total a value of PhP 71,220 (~£1,011). Thirteen village agents have been trained and are active in four sites, primarily in the Ajuy-Concepcion bay-scale. These agents are the frontlines of VSLA organising, supported by our Community Organisers. Thirty-five existing VSLAs are now linked to the supply chain for discarded fishing nets and have collected 5,314 kg of nets – equivalent to 5,000 km of fishing net. Seventeen local fishers have received training and technical assistance in seaweed farming. Of these, eight have been successfully seaweed farming, whilst four have received production loan assistance from ZSL that they are now planting (**Annex 3**).

Output 4 – Plan Vivo for blue carbon

We conducted the community consultation meetings as planned, which generated a significant amount of interest from community members. However, whilst working on the technical specifications and the identification of viable carbon pools we realised that there were some erroneous assumptions around the potential to certify blue carbon on voluntary carbon markets from mangrove ecosystems. As a result, we did not continue with the planned activities in this section to avoid creating too much false expectation within the communities. Instead, we have focused on ensuring that our approach to iMPAs is consistent with Plan Vivo standards, so that when blue carbon does become a viable option we can more readily look to verify it with Plan Vivo. This topic is discussed in more detail below. As a result, we have also strengthened research collaborations with Dr Clare Duncan (Deakin University, Australia) and Ben Thompson (National University of Singapore), both of whom have visited the project sites.

Output 5 – breaking donor dependence.

We have recruited a dynamic team to run the business models that support that iMPAs within northern Iloilo. This team have been trained in seaweed farming growing practices and how to support seaweed farming and net collection operations. The Net-Works social and ecological standards have been created for seaweed farming and for the net collection activities.

Diversification of Net-Works business model commenced with on-the-ground scaling of the ecological seaweed farming. Four communities (Tambaliza, Igbon, Talotoan, and Pedada) are now farming seaweeds with the initial volume of dried seaweeds bought from assisted seaweed farmers totalling 298 kg by the end of March 2018.

A site's potential for seaweed farming is a key consideration in site selection. ZSL requires a site to have a least a minimum 10 ha. of seaweed farming zones. Exploratory talks with companies producing products with carrageenan components were initiated. Samples of seaweed produced from assisted farms in Concepcion, Iloilo were sent to the UK, after securing the needed permits to ship samples from Philippines Bureau of Fisheries and Defra.

We have updated the forecast profit-and-loss model with more detailed costs and revenues following the pilot seaweed farming in northern Iloilo. We have used these forecasts to attract the interest of impact investors interested in helping us to scale the seaweed farming to a level sufficient to cover the costs of implementing the iMPAs, providing us with a direct mechanism to break donor dependence. The modelling for inclusion of blue carbon indicated that until soil carbon can be included in the Plan Vivo mechanism it will continue to operate at a loss – and therefore create further donor dependence.

3.2 Progress towards project Outputs

Output 1 – Effective iMPAs

Free prior informed consent (FPIC) has been rigorously applied in all communities as part of the scoping process. Additionally, we are formalising consent to operate in the area through

formal memoranda of agreements (MOAs) with municipal Local Government Units (mLGUs) in the three bay-scapes. To date we have signed MoAs with mLGUs of Ibabay and Tangalan in Aklan Province, and Ajuy in Iloilo Province. Draft MoAs with Ivisan (Capiz Province) and Concepcion (Iloilo Province) are close to being signed (**Annexes 4, 5 & 6**). Village profiles have been completed in all potential iMPA sites.

The exchange visit will be completed in year 2 with matched funding that we secured from the National Geographic Society once the iMPAs have been formalised and demarcated in the three pilot sites.

Although not due until year 3, we have created a model governance structure for the recently approved Tambaliza iMPA. We also created a model governance structure for the decision making process leading up to the creation of the ordinance that more effectively increases participation from the broader community in the decisions on where the MPA will be located and the general rules of operation. During this process the potential iMPA boundaries are demarcated using temporary buoys so that everyone has a chance to visualise and really understand where these boundaries will be.

To facilitate our progression towards indicator 1.7, we have developed a planning guide that is based around the MPA Management Effectiveness Assessment Tool (MEAT) (**Annex 7**). This specifically designs the interventions that would be required to move an MPA up to the next MEAT level. We are using this to inform the creation of our iMPA manual that provides a detailed “how to” implement the iMPA in year 2. To support progress towards indicator 1.9, we have undertaken social marketing surveys to create an iMPA branding document that appeals to local values (**Annex 8 & 9**).

The biggest challenge in achieving the implementation of all the iMPAs proposed is to access the finance required to establish all the various components. We are dependent on match funding to support activity costs and provide infrastructure. Additionally, as is discussed in Outputs 3 and 5 below, seaweed farming needs significant investment to get it to the scale in each site that will deliver conservation and development impacts. Our plan is initially to focus our limited resources on the three demonstration sites in order to provide the necessary proof points around the forecast costs and revenues that can unlock the impact investment funding needed in order to implement iMPAs with sustainable seaweed farming in all proposed sites.

Output 2 – TURFs (all indicators due in year 2)

As part of the Tambaliza iMPA an 83-ha TURF has already been designated, and usage rights have been broadly defined. The concept of TURFs has proven to be a powerful concept for the purposes of incentivising engagement in the iMPA planning and implementation process. People who meet the locally defined criteria for engaging in iMPA management will be allowed to fish using specific fishing gears, and similarly, will have access to seaweed farming space close to the modified guardhouse.

Output 3 – diversified Net-Works model

Since submission of the proposal, the thinking of Interface around the role and need for a private code for supply chain assurance (indicator 3.4) has changed. Interface no longer see the need for second or third party assurance, which is slow and costly. Instead, we are exploring other options, including the potential to use AA1000 and blockchain. As supply chain assurance is required, particularly around seaweeds, it makes more sense to do this once we have built a slightly higher level of supply and fully developed the supply chain mechanics. We have started discussions with a number of potential service providers who could help us with this, and will create a firm strategy and plan for this in year 2 in conjunction with corporate partners interested in buying the materials. The most important thing is that it is fit for purpose for the people who will be buying the material as it is not required for the successful operation of the business model that underpins iMPAs and provides long-term sustainability.

We have already made a good start towards training and supporting seaweed farmers with active farms generating seaweeds and income in four communities, one of which (Tambaliza) is an iMPA demonstration site. Most of the seaweed farming activity has focused around piloting of the ecological seaweed farming methods and conducting randomised control trials to look at the impact of different approaches on productivity. Now we are ready to expand this. However, seaweed farmers need a significant level of financial support in order to get to the

scale that would make a meaningful impact on their wellbeing and in order to generate sufficient revenues to break donor dependence. We have secured some funding to make the necessary investments in the demonstration communities. Once we have demonstrated that we can scale up production through these investments to the level necessary and generate the expected returns, we will be able to unlock further investment that will allow us to replicate this to all the other communities. We know that this level of farming is feasible due to precedents set in nearby Bohol and Cebu Provinces, but impact investors need to see this demonstrated on our own balance sheets. In the meantime we are also focused on creating the necessary systems and processes that will be required to replicate this to the other target sites. This includes insurance mechanisms, supply chain monitoring, and training manuals. We have formalised a technical partnership with SEAFDEC who provide us with improved seedlings and techniques to increase productivity of seaweed farmers. We have worked with Philippine Crop Insurance Corporation to cover participating seaweed farmers with crop insurance, and we are exploring cheaper options through private insurance companies. All of these activities will help to ensure that we achieve the ambitions set out in the proposal.

Output 4 – Plan Vivo for blue carbon

As we progressed with Plan Vivo activities we made three critical learnings:

- a. The largest carbon stocks for mangroves are in the soils. Currently these are not eligible as the scientific understanding of soil carbon fluxes in mangroves is in its infancy.
- b. The concept of additionality means that we have to create a baseline before project implementation started, which is more challenging in our sites than anticipated given our long history of working in the area. It also means that potentially a much smaller proportion of area is eligible for Plan Vivo than we initially envisaged where baselines may show that the condition of mangroves was already improving.
- c. With both of the above combined, our current best estimate is that income from Plan Vivo, once established, would be too small to cover the costs of ongoing verification work that is required. Thus it does not constitute a sustainable business model and would create additional donor dependency which is against one of the primary objectives of this project.
- d. Additionally, stable land tenure is required, but based on our experiences it takes 6-7 years to secure a community-based forest management agreement with DENR.

We still believe that Plan Vivo provides a good opportunity to increase protection of coastal greenbelts. However, it is clear that we have to focus on advancing the science around soil carbon fluxes (to add to our existing body of evidence on soil carbon in the proposed sites) and take the time to recreate sound baselines of the trends in mangrove condition prior to the time that we started working in these areas (which is prior to the Darwin project). We also need to work with DENR to explore options for speeding up the tenurial processes and explore alternative land tenure solutions. We believe that once these issues have been resolved Plan Vivo could provide a valuable revenue stream alongside those from seaweed and nets to support mangrove conservation within our iMPAs and further strengthen the resilience of this business model. In the meantime, however, seaweed revenues are anticipated to be sufficient to secure the iMPA model and we aim to ensure that mangroves are adequately captured within these iMPAs. We are ensuring that the process and standards we follow are consistent with Plan Vivo so that once the research and tenure issues have been resolved we can relatively quickly add Plan Vivo as a revenue stream to support mangroves within the iMPAs.

Output 5 – Breaking donor dependence.

Breaking donor dependence means two things. First, it means creating a revenue stream that can support ongoing operating costs to ensure that iMPAs established during this project are maintained into the future. Second, it means creating more innovative funding opportunities to help replicate and scale iMPAs across the Philippines. A dependence on donor funding would mean that any replication or scaling mechanism is too slow to keep up with the pace of the change and threats that are occurring in the ocean, or to meet the nationally legislated targets by their deadlines.

To do both of these things we need to forecast revenues and costs associated with a) running and b) setting up the iMPAs and the underlying business model. Based on our pilot seaweed

farms we have been able to calculate the level of seaweed farming that is required to both sustain the iMPAs, and to potentially generate a margin that could be used to attract alternative sources of finance to help set up in new sites. These forecast costs and revenues look extremely promising based on seaweed farming and nylon from the nets. However, we have also realised the level of investment that is needed per site to get them up to that level.

Impact investors are an obvious route to help with scale, and we have attracted the interest of a number of impact investors with emerging ocean funds. We are particularly interested in those impact investors willing to offer below market rates associated with high social and environmental returns. The investment amounts required do not worry these investors. However, they need to see proof points that we can generate the expected revenues and levels of production per site. We know that these levels are feasible based on precedent from existing seaweed farming areas. With limited resources at the current time, we can only afford to invest sufficiently in three demonstration sites. Therefore, we have adjusted our strategy to focus in year 2 on those three demonstration sites and on building the necessary systems and processes so that we can unlock the funding in order to replicate to the other proposed sites in years 3 and 4. We continue to work closely with potential impact investors to ensure that we are meeting the criteria that they require to unlock those funds.

3.3 Progress towards the project Outcome

- **Indicator 1 – Increase number MMPAs.** 14 iMPA sites encompassing 27 coastal villages selected after conduct of rapid biophysical and socio-economic assessments and consultations with fishing communities and their local governments. All iMPA sites have the potential of having at least 200-ha. no-take zones. Small villages with strong community buy in and with good habitats needing management, but with limited area to meet the required 200 ha. minimum no-take zone are formed into clusters on co-management set up. Tambaliza iMPA in Concepcion was legally declared as the first iMPA (with a total area of 752 ha.) on Panay Island in March 2018.
- **Indicator 2 – Halt or reverse declines.** Once the zoning/spatial plans of the iMPAs are approved through municipal ordinances, our field biologist team will conduct standard biological survey to generate the baseline data on the status of fish, habitats (corals, mangroves, seagrass), and environmental parameters (rugosity, salinity, etc.).
- **Indicator 3 – Set baseline.** Standard household socio-economic survey tool developed and tested (**Annex 10**) and a total of 153 VSLA members (out of 947 in the database) participated in individual surveys. Full survey implementation is planned in Q1 Year 2.
- **Indicator 4 – Livelihoods diversified.** Six (6) selected iMPA sites (Tambaliza, Talotoan Igbon, Polopina, Pedada, Punta Buri) have existing or a history of seaweed farming. The other 8 sites also have seaweed farming potential, though further site suitability assessments and trial farming needed to be conducted. We started trading support to seaweeds farmers in 4 sites (Igbon, Talotoan, Tambaliza, in Concepcion and Pedada in Ajuy)
- **Indicator 5 – Diversified Net-Works business model.** Profit and Loss (P&L) of diversified Net-Works business model redesigned to consider a core team of field biologists and community organizers as essential cost centre. The business model was tested with impact investors.

3.4 Monitoring of assumptions

Project Summary	Risks and Assumptions	Comments on Status
Outcome Community-based conservation effectively protects 15% of bay-scape waters in three	<ul style="list-style-type: none"> ▪ Municipal and barangay local government units supportive. All have shown support to date; ▪ Further natural disasters, particularly tropical storms, 	Municipal and barangay LGUs are very supportive. LGU support to the project formalized through MOA. Just like any farming activity, seaweed farming remains vulnerable

<p>pilot bay areas (thereby meeting national and CBD targets), fully sustained by a diversified Net-Works business model that enhances socio-ecological resilience and reduces dependence on donor funding.</p>	<p>typhoons and earthquakes do not hinder significantly project sites or activities. However, we were surprised how much conservation work the communities were willing to do even in the immediate aftermath of Typhoon Haiyan.</p> <ul style="list-style-type: none"> ▪ Revenues in the business model can be made to match the costs of ongoing MMPA support – which depends on both increasing supply and price of goods, and finding efficient ways to reduce costs – something that we have already shown we are very effective at with Net-Works. ▪ Presence of active People’s Organizations engaged in Coastal Resource Management/fisheries management with high conservation awareness ▪ Receptivity of stakeholders to a new approach to conservation through business models. 	<p>to natural weather systems, especially tropical storms and monsoons, and warming of sea surface temperature, which can induce on-set highly damaging ‘ice-ice’ disease in seaweeds. For instance, on 11-12 February, Typhoon Basyang struck and damaged existing crops in Igbon.</p> <p>We are aiming to scale up seaweed production to a commercial level in three pilot sites in Year2. We can easily secure the production areas alongside the MMPA spatial planning process. But, we need financing infusion to be able to scale up the production. Also, we need to demonstrate seaweed farming can generate a reliable income source for local fishers. Most local fishers still find income from fishing more reliable, which has bearing on their decision to shift to seaweed farming</p> <p>We purposefully look for sites with active POs that can be allies in advancing the Coastal Resource Management (CRM) and fisheries management agenda.</p> <p>Overall buy in to the iMPA concept has been very strong, enabled through our social marketing tactics. Most communities have been very receptive to the idea of a new generation of MPAs that are bigger, diversified, and sustainable that ZSL is advocating.</p>
<p>Output 1 Effective community-based management of 17 MMPAs across the 3 bay-scapes :</p>	<ul style="list-style-type: none"> ▪ Local champions can be found which has always been possible in previous communities although sometimes can be complicated by underlying political agendas. ▪ Community-level support for conservation is motivated by shared experiences with similar communities. We have found previously that cross-visits are highly effective but only when they are well planned with defined objectives, clear structure and follow up. ▪ Engagement and support from local government is secured throughout the project. Following the national elections in April 2016, government should be stable for 3 years but level of bureaucracy and time around MPA ordinances can vary depending on the village and LGU officials. ▪ Boundaries between 	<p>Assumption still valid. The ranks of VSLA members provide a venue for spotting potential local champions. Our community organisers monitor VSLAs for any concerns around them becoming politicised but this has not been an issue to date.</p> <p>We are planning to develop local models in three sites, especially the newly-declared Tambaliza MPA in Concepcion. Since the iMPA approach is an innovation espoused by ZSL, we need to develop model within the project sites. Hence, the initial success of the Tambaliza MMPA is very crucial so that we will have access to a learning site.</p> <p>There will be barangay level elections on 14 May 2018. While leadership transitions at the village level may have implications, it can be offset by the stronger collaboration with municipal LGUs. Also, if we continue partnering with POs, it can also help balance the possible impact of leadership changes at the barangay</p>

	<p>municipalities are defined or can be resolved, especially where they may affect MPA establishment.</p>	<p>level.</p> <p>While Ibaday and Tangalan municipalities have unresolved boundary issues, the villages have expressed openness to co-management options. But, to be safe, project will not operate in areas that may unintentionally recognize the validity of territorial claim of one LGU partner. Our decision to drop Sapián as a site lessens possible entanglement in boundary related dynamics between two LGU partners</p>
<p>Output 2</p> <p>Integrated Territorial Use Rights for Fisheries (TURFs) introduced within MMPAs (creating TURF-reserves or replenishment zones) in two bay-scapes to align fishers' incentives with sustainability and MPA management.</p>	<ul style="list-style-type: none"> ▪ Communities can reach agreement on location of buffer zones and managed fishing areas. Often these are a mechanism for implementing existing (unenforced) laws on fishing gears. ▪ Improved diversity of function of MPA guardhouses will enhance enforcement of no-take zones and illegal fishing activities through additional surveillance and active engagement of fishers. ▪ Women engage as fish/forest wardens which may be facilitated through training specific women's enforcement teams as successfully applied in South Africa and Nepal. ▪ CPUE electronic recording system currently used in collaborative ZSL projects in Mozambique apply in a Philippines context or can be adapted. Good understanding of fisheries in the Philippines, staff expertise, and connections with fisheries experts and existing data (USAID projects) should facilitate this. 	<p>Assumption still valid</p> <p>Assumption still generally valid. It is worth noting, however, that we have seen a situation where seaweed farms may not be proximate to what may be considered strategic placement for the MPA guardhouse</p> <p>Assumption is still generally valid. There are positive signs, For instance, two of the newly-deputized fish wardens in Ajuy are women. Secondly, a local woman (Nanay Helen) in Tambahiza has been enforcing a portion of the MPA near her residence</p> <p>This is highly possible, given the popularity of ICT gadgets in the Philippines.</p>
<p>Output 3</p> <p>Diversified Net-Works business model supports environmental management and biodiversity conservation, and clears up marine debris.</p>	<ul style="list-style-type: none"> ▪ Available conservation/ environmental champions suitable as village agents ▪ Viable markets for plastic waste other than nylon ▪ Net-Works systems and M&E are robust enough to convert to a private code. Sharing of the toolkit, current data collection methods and results through a series of meetings with FLOCert (leading experts and behind Fair Trade certification) have suggested this is the case. ▪ BFAR issue seaweed farming permits according to their current guidelines. ▪ Sustainable seaweed farming methods are adopted by families 	<p>Local government units have the authority to issue farming permits.</p> <p>Results of trials we conducted on potential alternatives to plastic ties have not been promising. The use of PE ropes (which can last longer than soft ties) are not generating buy in</p>

	<p>and not undermined by existing accepted practices e.g. use of polluting plastic ties.</p> <ul style="list-style-type: none"> ▪ Loss of seaweed production due to weather/disease is within contingency parameters set within the business model (based on scientific research and extensive discussions with key stakeholders). 	<p>from local farmers. PE ropes can cause lesions on the seaweed plantlets</p> <p>We can keep farm size to be supported at 1,000m² size so these can be covered by the government-subsidized crop insurance, while ZSL explores other cheaper insurance options</p>
<p>Output4</p> <p>Plan Vivo certificates for blue carbon in MMPAs from mangroves and seagrasses provide a mechanism for increased protection of coastal greenbelts and sustainable financing for coastal communities.</p>	<ul style="list-style-type: none"> ▪ Stable land tenure is existing or can be established for project sites ▪ Community agreement and buy-in to implement Plan Vivo ▪ Project is validated and verified under the Plan Vivo Standard. ▪ Plan Vivo and ZSL are able to secure buyers for each tonne of CO₂e generated from the project ▪ Market price for tradeable carbon remains fairly stable and high therefore project costs are offset and communities benefit from income. 	<p>We have realised that our assumptions were not completely accurate. There are four assumptions and risks that we have identified. Our approach to tackle this is detailed in reporting on Output 4, and will entail the need for a change request.</p> <p>a. The largest carbon stocks for mangroves are in the soils. Currently these are not eligible as the scientific understanding of soil carbon fluxes in mangroves is in its infancy.</p> <p>b. The concept of additionality means that we have to create a baseline before project implementation started, which is more challenging in our sites than anticipated given our long history of working in the area. It also means that potentially a much smaller proportion of area is eligible for Plan Vivo than we initially envisaged where baselines may show that the condition of mangroves was already improving.</p> <p>c. With both of the above combined, our current best estimate is that income from Plan Vivo, once established, would be too small to cover the costs of ongoing verification work that is required. Thus it does not constitute a sustainable business model and would create additional donor dependency which is against one of the primary objectives of this project. A fundamental assumption was that Plan Vivo provided a sustainable source of finance for supporting mangrove conservation in the long term that could reduce donor dependency, which at the current moment does not appear to be the case.</p> <p>d. Additionally, stable land tenure is required, but based on our experiences it takes 6-7 years to secure a community-based forest management agreement with DENR.</p>
<p>Output 5</p> <p>Break donor dependence and create financially sustainable community-based</p>	<ul style="list-style-type: none"> ▪ Efficient approaches to MMPA management can be developed to ensure costs are within the scope of resources available within business models and local government resources. 	

management	<ul style="list-style-type: none"> Funds can be accessed to the right level to support MMPAs sustainably by Yr 4. We already have a strong track record with existing business models and counterpart funding from local government. 	<p>LGU Concepcion committed officially (through the budgetary provision of the ordinance) PhP200,000 annually for Tambaliza MPA</p>
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3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

The new 752 ha (with 200 ha no take) iMPA in Tambaliza contributes to the Philippine Biodiversity Strategy and Action Plan 2014-2025 in contribution to achieving the Aichi Biodiversity Targets and the CBD targets for marine biodiversity protection. This new iMPA is in the top 3% in the country in terms of size, so this project offers the potential for transformational difference in community-managed MPAs in the Philippines. This iMPA encompasses mangrove, seagrass and coral reef habitats, maximising the biodiversity protected which we are monitoring through biological surveys.

Our capacity building has taken two forms, environmental training including enforcement (**Annex 11**) and mangrove and beach forest training (**Annex 12**) and supporting VSLAs that address poverty with Environment Funds to enhance community capacity to manage their own resources. For VSLAs, the average annualised returns on assets are 33% and 67% of ZSL-Philippines supported VSLA members are women helping address poverty and gender equity.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

G1.5 [By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters]

- A total of 44 VSLAs provide families with access to basic financial services (savings and credit) and social funds. Information from post-Haiyan accounts showed that poor families that are linked to VSLAs rebuilt damage houses faster than those who were not linked to VSLAs.
- The 14 iMPA sites we aim to establish and manage have diversified habitat components. Most of them have mangrove forests that we will rehabilitate using community-based approaches developed and employed in previous Darwin grant (21-010). These mangrove forests increase resilience in poor fishing communities through coastal greenbelts that can protect them from strong winds, waves, and surges (documented in scientific research with grant 21-010 Duncan et al., 2016 doi: 10.1016/j.marpolbul.2016.05.049).

G8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

G12.2 [By 2030, achieve the sustainable management and efficient use of natural resources]

- The 44 VSLAs or community banks we have catalysed provide 986 individuals with access to saving and credit facilities, as well as basic insurance through the social fund.
- Most of these villages are very remote and poor and considered non-bankable by the formal financial institutions, particularly as saving amounts per week are small and communities are remote.

G12.5 [By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse]

- As of March 2018, we have already collected a total of 5,314 kilograms of used fishing nets in 6 communities, of which 5 are iMPA sites.
- We have jointly developed with LGU Concepcion, Iloilo, the Trash for Health campaign, which aims to expand the scope of our plastics recycling by managing other types of plastics and has been implemented at a pilot scale in two communities.

G13.1 [Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries]

- The 55 community banks we have catalysed will help 986 individual members become more resilient.
- Our approach of diversifying the habitat composition (including mangroves and seagrass beds) of iMPAs will make communities and MPAs more resilient through improved ecosystem services provided by those habitats.
- The iMPAs we are assisting are considered and recognized by local government unit partners as disaster preparedness interventions

G14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

- As of March 2018, we have already collected a total of 5,314 kilograms of used fishing nets in 6 communities, of which 5 are iMPA sites.
- We have jointly developed with LGU Concepcion the Trash for Health campaign, which aims to expand the scope of our plastics recycling by managing other types of plastics and is being trialled at two pilot sites.

G14 [Share of marine areas that are protected]

G14 [Fraction of fish stocks overexploited and collapsed (by exclusive economic zone)]

G14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in

- iMPA Tambaliza legally established, currently the biggest multi-use managed marine area in the Ajuy-Concepcion bay-scape
- Legislation has budgetary provision to ensure management has access resources to support basic MPA management activities
- We have identified iMPA sites in 13 other sites and all of them will have at least 200-ha. no-take and diversified habitat coverage
- Communities are made aware about the importance of the nets recycling and eco-seaweeds in the long-term financing for MPA management

G14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based Management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

- iMPA design requires designation of TURFS, regulated fishing zones, and seaweed farming zones
- Access grants from ADRA and NGS to build local capacities in law enforcement, including implementation of SMART marine
- We conducted training to deputize local fish wardens to improve enforcement and reduce illegal fishing and assisted two local government unit partners formulate operations manuals for their deputized fish warden operations.
- We are assisting two local government unit partners (Ajuy and Concepcion) in preparing their Coastal Resource Management Plan, which embraces the Ecosystem Approach to Fisheries Management being promoted by the Philippine Bureau of Fisheries and Aquatic Resources
- ZSL is linking up with ecosystem level initiative (BFAR Visayan Sea project) and adopted EAFM for Concepcion and Ajuy

G14.5 [By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information]

- ZSL has selected 13 potential iMPA sites capable of producing at least 200-ha NTZ
- Standard biological surveys are done to inform MPA establishment processes

G14.a [Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to

enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries]

- Standard biological surveys conducted in the sites in Concepcion and Ajuy, informing processes of the preparing CRMP/Ecosystem Approach to Fisheries Management Plan
- CRMP planning done in coordination with LGU partners, providing opportunities for the coaching and mentoring

G14.b Provide access for small-scale artisanal fishers to marine resources and markets

- Integration of the TURFs, regulated fishing zones, and eco-seaweed farming zones in the iMPA Tambaliza
- Net-Works has set up a supply chain the dried seaweeds. We have already sent sample of the seaweeds our communities are producing to potential corporate buyer in the UK.
- New sites with significant volume of discarded fishing nets will be linked to the used nets supply chain
- All iMPA sites we have identified have potential eco-seaweed farming zones.

5. Project support to the Conventions, Treaties or Agreements

This project is focused on contributing to national action plans and programs to support the country's achievement of the Convention on Biological Diversity, Aichi Biodiversity Targets and Sustainable Development Goals. The project includes strategies and approaches anchored on the broader framework of Integrated Coastal Management (ICM) implemented in Key Biodiversity Areas, including (i) supporting local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced and rehabilitating degraded ecosystems; (ii) adopting measures to avoid or minimise adverse impacts on biological diversity (Articles 8 & 10). The Net-Works™ model also encourages the involvement of coastal communities in the management and benefit-sharing from the sustainable use of biological diversity (Article 8), and is an economically and socially sound measure for incentivising conservation and sustainable use of components of biological diversity (Article 11). Net-Works™ is designed to support community-based protected areas, which can contribute to the protection targets under CBD only when they achieve scale. This is already demonstrated by our first iMPA being one of the largest in the Philippines, implemented in Year 1 of the project.

These strategies will contribute to the achievement of the Philippine Biodiversity Strategy and Action Plan 2014-2025 in contribution to achieving the Aichi Biodiversity Targets:

- Terrestrial Ecosystems, Priority Strategy 1- Protect and conserve existing natural habitats and pursue restoration of the functionality of degraded habitats (supporting Aichi Targets (AT) 1, 2,5,11,14,15,19)
- Terrestrial Ecosystems, Priority Strategy 3 – Conserve and protect natural ecosystems to improve the resilience of vulnerable communities (supporting AT 1,2,15,19)
- Aquatic Ecosystems (Freshwater/Marine), Priority Strategy 5- Implement habitat rehabilitation programs and strengthen collaboration among relevant agencies and stakeholders on land and water use, resource extraction, ecosystem restoration, law enforcement and sustainable livelihoods (supporting AT 1, 2, 5,6,10,11,15).

We built strong relations with the UK Embassy in the Philippines in Year 1, organising meetings and site visits (December 4th – 6th 2017 to our sister project in Aparri) and also a joint conference on illegal wildlife trade in Manila on 19th February where details of the project were presented as a wider context by Godof Villapando and Heather Koldewey. A panel discussion was also joined by our government partners DENR-BMB and BFAR.

6. Project support to poverty alleviation

Socioeconomic surveys have been conducted across sites to determine the levels of poverty in the focal communities. To date, the 44 VSLA/community banks we have catalysed and mentored have 986 members. These individuals have access to financial services (savings and credit) and social funds. Results of our initial analysis suggest that members use loan availed

from their VSLAs to support livelihoods and address basic needs, including education and health.

We have provided training for 12 local fishers in seaweed farming that provides access to a new livelihood, with eight families engaged in farming seaweed by the end of Year 1. Four families received PHP119,000 (£1,700) worth production loan assistance from ZSL to initially develop the seaweed farms. The newly declared Tambaliza iMPA includes a total of 32 ha. as a seaweed farming zone that members of the community banks can farm.

Previous research (Hill et al., 2011) identified that risk was a key barrier that prevented fishers from diversifying their livelihood options e.g. starting seaweed farming. We have therefore facilitated insurance coverage of 21 seaweed farmers under government crop insurance schemes that is already available to e.g. rice farmers. This helps reduce risk and increase access for poor people into new income generating options.

The Tambaliza iMPA has started to introduce regulated fishing zones with territorial user rights for fishers engaged in marine protection and enforcement of the iMPA. This means these fishers gain preferential access to the improved fisheries that will result from the MPA. As the iMPA is newly established, it is too soon to see these improvements.

7. Project support to gender equality issues

Our project team is an equal gender split, with women represented in roles across leadership, technical, management and support roles.

The VSLA membership (986) has been well documented to be primarily female (81%) and therefore women will see direct benefits from this increased economic resilience and access to financial services. This has been a key tool that we have focused on in Year 1 to engage women in the project. Another focal area has been the role of women in decision making in marine resource management, particularly as they can be marginalised in the location and controlled activities in MPAs. The effectiveness of the engagement through the social marketing programme will be reported on in Year 2 as the membership and contributions of the MPA Management Councils, TURFs and engagement of women in seaweed farming will be some key metrics that we will monitor and measure.

8. Monitoring and evaluation

A detailed one-year operational plan was evolved from the Project Logframe and implementation timetable. The operational plan was the basis for the preparation monthly sub-team and individual work plans. Sub-teams and individuals are required to submit accomplishment reports based on approved monthly workplans. Team managers and project manager track progress of targets by reviewing the monthly reports. Progress of project implementation is reported quarterly to the senior management team of ZSL Philippines.

On 17th and 18th October 2017, we held a workshop with the Darwin team (Philippines and with Heather Koldewey and Surshti Patel from UK) in the ZSL office in Iloilo to review our indicators and monitoring systems and to ensure methodologies were standardised. This helped build consistency and capacity among the team and streamlined the number of indicators. Surshti Patel and Hazel Panes now track these agreed indicators to agreed timelines e.g. VSLAs indicators are submitted monthly, MPA biological monitoring annually. We have established templates for qualitative data and informal storytelling that have allowed us to generate a series of blogs that give more descriptive outcomes of the project e.g. <http://net-works.com/2017/04/26/net-works-community-banks-sag-young-savers-story/>

9. Lessons learnt

What worked well:

- Use rapid assessment tools to generate information we used as basis in site selection
- Long history of working with local government units was a facilitating factor

- Re-hiring of staff involved in the previous Darwin grant enabled a quick start up phase and consistent standards.
- Using social marketing to secure community buy in for bigger and better MPAs.

What did not work well:

- Field work commence only on the 4th month since there was a delay in the notice of approval from Darwin.
- Termination of first Project Manager due to performance issues. The new Project Manager was promoted internally after an open recruitment and was part of the previous Darwin grant.
- Deployment of staff before final site selection compromises flexibility to ensure you have the right staff-site coverage ratio.

If you had to do it again, what would you do differently?

- Give a numerical range of target sites that gives a degree of flexibility once local conditions are fully assessed and the feasibility of implementation is fully understood. While we did initial scoping in the project area, we could only fully appreciate the realistic number of sites once the project was underway.
- Need to allocate sufficient time and opportunities for villages to explore concepts of co-management with other communities and local government. This is not a common model in the Philippines, particularly working across villages, but this is a requirement to generate the larger (200 ha) iMPAs we are advocating in this project.
- Provide longer time for full development of diversified business model – 2 years may be too short for an enterprise (seaweed farming) to fully develop into full commercialization
- Provide adequate time for zonation and spatial planning – 12 months are inadequate
- Allocate sufficient funds for capability building training and technical support
- Allocate sufficient funding allocations for essential M&E activities. We did not have the funds needed to roll out the socio-economic base line surveys and fisheries (CPUE) baseline surveys.

What recommendations would you make to others doing similar projects?

- Be cautious on the number of sites targeted and consider presenting a range at the outset, which can then be refined once the more thorough sites assessments and community/government engagement has been carried out and adopt a phased approach to covering the sites
- Access financing for the development of the seaweed farms
- Commence business development of other key commodities alongside seaweed farming. It makes the business more resilient to shocks

How are you going to build this learning into the project and future plans?

- Match funding to secure shortfalls in project budget.
- Detailed planning on phasing of sites, with intense focus on a limited number of demonstration sites that can then be used for more rapid and efficient scaling.

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

Not applicable.

11. Other comments on progress not covered elsewhere

The rapidly growing interest in marine plastic pollution has helped increase the profile of Net-Works and the visibility of the project and access to additional funding opportunities e.g. National Geographic Society.

12. Sustainability and legacy

- Training of trainers courses delivered for mangrove and beach forest (**Annex 12**) and for VSLAs (through annual summit with World Vision) – building expertise and knowledge amongst NGOs (conservation, development and humanitarian), government agencies, academia and corporate sectors.
- Through engagement and events with the UK Embassy in the Philippines we have built the visibility of our work and ZSL-Philippines as a local NGO for the longterm.
- Secured interest from impact investors that will generate long term sustainability, with a letter of intent from Althelia Investors secured.

13. Darwin identity

- By hosting joint events with the UK Embassy in the Philippines in Manila e.g. 19th February 2018, we have increased the profile of the Darwin Initiative in the Philippines and the UK Government's contribution. The Darwin logo is included in all project materials e.g. banners, posters, and in the MPA billboards for the Tambaliza MPA.
- We regularly profile the project on social media (Facebook, Twitter) through personal and ZSL Marine (@ZSLMarine) accounts which tag the Darwin Initiative accounts on relevant posts. The following relevant blogs have been posted on the Net-Works website:
 - Mangrove conservation and MPA management in the Philippines. By ZSL, July 26th, 2017, <https://www.zsl.org/blogs/conservation/mangrove-conservation-and-mpa-management-in-the-philippines>
 - Net-Works Community Banks: The Sag Young Savers' Story, By Surshti Patel, 26 April 2017. <http://net-works.com/2017/04/26/net-works-community-banks-sag-young-savers-story/>
 - Net-Works Community Banks: Donna's Story, Surshti Patel, ZSL, 20 April 2017, <http://net-works.com/2017/04/20/net-works-community-banks-donnas-story/>
 - Net-Works Community Banks: Nonilon's Story, Surshti Patel, ZSL, 10 April 2017, <http://net-works.com/2017/04/10/net-works-community-banks-nonilons-story/>
 - Be part of the solution! Nick Hill, 31 January 2018, <http://net-works.com/2018/01/31/be-part-of-the-solution/>
 - Why Southeast Asia? Nick Hill, 31 January 2018, <http://net-works.com/2018/01/31/1382/>
 - The impact intrapreneurs: How Interface and ZSL collaborated to create Net-Works, By Karen Deignan, 13 December 2017, <http://net-works.com/2017/12/13/impact-intrapreneurs-interface-zsl-collaborated-create-net-works/>
- Presentations where Darwin logo included:
 - 27th April 2018. Nick Hill presenting Net-Works which was selected as a finalist for the St Andrews Prize for the Environment.
 - 19th February 2018. Heather Koldewey and Godof Villapando. Visiting Professors Public Lecture and Roundtable: International Wildlife Trade. Event organised by British Embassy in the Philippines. Ateneo de Manila University, Manila, Philippines.
 - 14th February 2018. Heather Koldewey. Plenary speech at International Year of the Reef launch at Princes International Sustainability event with VIPs, business leaders and HRHs Prince Charles and Prince Harry.
 - 22nd January 2018. Conservation for Communities. Workshop 'Sharing best practice in marine conservation and research' organised by CIIMAR (Interdisciplinary Centre Of Marine And Environmental Research - University of Porto) and ZSL, Portugal.
 - 13th December 2017. Heather Koldewey. Opening Plenary speaker. Perspectives on reef conservation. European Coral Reef Symposium, University of Oxford, UK.
 - 5th December 2017. Heather Koldewey. MSc Conservation and Ecology students lecture and workshop, University of Exeter, Cornwall campus.
 - 16th October 2017 – Nick Hill presented Net-Works in a lecture to Exeter University 2nd year students studying Marine Vertebrate Conservation.
 - 26th July 2017. Heather Koldewey. Keynote speaker. Marine Ecology and Conservation Network conference, University of Exeter Penryn campus.
 - 27th April 2017. Guest speaker – Pew Bertarelli Global Ocean Legacy The Science and Culture of Marine Conservation on Rapa Nui, Easter Island, Chile.

- The project will also have high visibility at the 3rd National Mangrove Conference organised by ZSL in Iloilo City from 18th – 21st April 2018.

14. Project expenditure

Please expand and complete Table 1.

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) in this financial year	2016/17 D+ Grant (£)	2016/17 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>Community-based marine protection in the Philippines enhances resilience to natural disasters while helping meet national targets (15%), fully sustained through business models, reducing donor dependency and building sustainability.</p>		<ul style="list-style-type: none"> • 14 iMPA sites (8 of which are clusters of 2 or more barangays) have been selected after structured biophysical and socio-economic assessments • All sites will have at 200-ha. no-take zones • All sites will have at least two habitat types • While trial farming still need to be done, all sites have potentials for ecological seaweed farming • iMPA Infographic and branding documents illustrate and explain the generation of MMPAs we are establishing under this project. 	
<p>Outcome</p> <p>Community-based conservation effectively protects 15% of bay-scape waters in three pilot bay areas (thereby meeting national and CBD targets), fully sustained by a diversified Net-Works business model that enhances socio-ecological resilience and reduces dependence on donor funding.</p>	<p>0.1 Increase number of MMPAs from three to 15, each of minimum 200 ha, totalling 15% of bay-scape waters (out to 3km) by Yr 4 (minimum of 3,400ha (17 villages; 200ha each) of no-take zone).</p> <p>0.2 Halt or reverse declines in key</p>	<p>14 iMPA sites encompassing 27 coastal villages selected after conduct of rapid biophysical and socio-economic assessments and consultations with fishing communities and their local governments. All MMPA sites have the potential of having at least 200-ha. no-take zones. Tambaliza iMPA in Concepcion was legally declared as the first/model multi-use iMPA (with a total area of 752 ha.) in March 2018. (Annex 13)</p>	

	<p>marine species and habitats (mangroves, seagrasses, coral reefs and indicator invertebrate/fish species) within three bay-scapes by Yr 4, having established baselines at new sites by Year 2.</p> <p>0.3 Set baselines in Yr1 through survey of stratified selection of households and achieve an average 20% improvement in locally-defined household wellbeing indicators (including subjective, material style of life, income and food security) by Yr4 (n=25,000 households total, min of 500 sampled in stratified selection)</p> <p>0.4 Livelihoods diversified from an average of 2.0 occupations per household in Yr 1 to 2.5 in Yr 4 (n=25,000)</p> <p>0.5 Business model from the diversified Net-Works business model and Plan Vivo supporting a small local team of Community Organisers and Biologists by Yr 4 to sustain community-based conservation activities and the supply chains, as reflected in Darwin budget.</p>	<p>Standard household socio-economic survey tool developed and tested. Total of 153 VSLA members (out of 947 in the database) participated in individual surveys.</p> <p>Six (6) selected iMPA sites have existing or history seaweed farming. The other 8 sites have seaweed farming potentials, though further site suitability assessments and trial farming needed to be conducted. We started trading support to seaweeds farmers in 4 sites (Igbon, Talotoan, Tambaliza, in Concepcion and Pedada in Ajuy)</p> <p>Profit and Loss (P&L) analysis of diversified Net-Works business model redesigned to consider a core team of field biologists and community organizers as essential cost centre.</p>	
<p>Output 1.</p> <p>1. Effective community-based management of 17 MMPAs across the 3 bay-scapes :</p>	<p>1.1 Free Prior Informed Consent (FPIC) obtained from all relevant barangays by Yr 1, as a measure of community support and</p>	<p>Instead of PFIC, ZSL formalized consent and agreement to partner through memoranda of agreement (MOA) with municipal government units. ZSL has signed MoA with the municipalities of Ibajay and Tangalan in Aklan, and Ajuy in</p>	

<ul style="list-style-type: none"> ▪ Pedada and Ajuy Bay, Iloilo Province linked to Concepcion Bay and Concepcion Islands, Iloilo (2 LGUs - Pedada and Ajuy) ▪ Sapián Bay, Capiz Province (involving 2 LGUs - Ivisan and Sapián) ▪ I Bajay-Tangalan Bay, Aklan Province, (2 LGUs – I Bajay and Tangalan) 	<p>engagement.</p> <p>1.2 Village (barangay) profiles completed using Rapid Rural Appraisal approaches by Yr 1 that establish resource management needs and capacity at each site.</p> <p>1.3 Exchange visits completed to existing MMPAs within each bay-scape by Yr 1 to enthuse and educate community champions and provide practical demonstration of conservation interventions.</p> <p>1.4 Appropriate governance structures for 17 MMPAs (defined by municipal ordinances) with equitable membership (at least 50% women, and representing major social groups within each community) established or strengthened and meeting at least monthly by Yr 3.</p> <p>1.5 Participatory site selection for 12 new MMPAs and municipal ordinances obtained for these by Yr 2, with total area equating to 15% of bay-scape waters.</p> <p>1.6 One MMPA social network composed of local People’s Organization POs/MPA Management Councils (MMCs), and VSLAs established and meeting bi-annually in each bay-scape for experience sharing and cooperation by Yr 2. At least 50% women participating in decision making in the social network.</p>	<p>Iloilo. Draft MoA with the municipalities of Ivisan, Capiz and Concepcion, Iloilo are closed to being signed.</p> <p>Rapid biophysical and socio-economic surveys conducted in 17 potential iMPA sites, of which 14 were eventually selected</p> <p>We secured a small grant from the National Geographic Society as match funding that we can use to support the learning visit. We are planning to organize the learning visit once the management councils of three focal iMPAs have been constituted.</p> <p>The approved 753-ha Tambaliza MPA in Concepcion MPA now serves as model for MPA governance arrangement. Management structure was designed in consultation with community stakeholder groups and local governments.</p> <p>Assessment of 17 potential sites employed participatory tools. Site identification and selection went through community-level consultations. Initial spatial planning (particularly on size and location of no-take zones) went through community consultations. Eleven of the 14 selected MMPA sites are located in the Ajuy-Concepcion bay-scape. These target iMPA sites are also incorporated in the evolving Coastal Resource Management (CRM) Plans of Ajuy (Annex 14) and Concepcion (Annex 15) municipalities, which the team organized and facilitated in partnership with the Adventist Development and Relief Agency or ADRA.</p> <p>We started creating building blocks for this social network in the Ajuy-Concepcion bay-scape. With a short-term grant from ADRA, we organized a training on Advance Fishery Law Enforcement Training for newly-deputized fish wardens of Ajuy and Concepcion municipalities. ZSL is actively participating in the Concepcion LGU-NGO coordinating body to ensure our project interventions in villages are well-coordinated to avoid unnecessary overlaps. For instance, at least two other non-profit organizations are supporting both financially and technically our efforts to formulate the CRM Plans in Ajuy and Concepcion and to provide capability building training to our community partners.</p>
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	<p>1.7 All MMPAs pass the criteria for Philippines MPA Effectiveness Assessment Tool (MEAT) level 1 (“MPA is established – with participatory process, adoption of management plan, and appropriate legislations and governance) by Yr 2 and MEAT level 2 (“MPA management is effectively strengthened”) achieved in all MMPAs by Yr 4, from level 0 or 1 and on track for level 3 (which can only be achieved after 5 years of operation).</p> <p>1.8 15 VSLAs (see output 3) contributing their environment funds to appropriate management committees and management committees leverage funds from municipal LGUs to sustain management activities by Yr 2.</p> <p>1.9 Social marketing campaign delivered across each bay-scape by Yr 2 with baseline set in Yr 1 and willingness to pay for community-based marine conservation increased 50% by Yr 4 (or to minimum of PhP100 p.a. where baseline is PhP0) – indicating increased support for conservation due to pro-poor design and successful social marketing.</p> <p>1.10 Peer reviewed paper submitted for publication on ecological impacts of project’s MMPAs by Yr 4.</p>	<p>ZSL has developed a MPA MEAT-based MPA strengthening interventions guide to ensure the iMPAs we are setting under the Darwin grant will perform well in accordance with the national MPA MEAT management effective rating system.</p> <p>A total of 7 new VSLAs were organized in Year1. All new VSLAs adopted the Environment Fund innovation of ZSL. By end of Year1, a total of 39 VSLAs (36 existing and 3 new) have Environmental Funds. Also, a partner non-profit organization (Adventist Development Relief Agency) that is also organizing VSLAs has allowed ZSL to introduce the EF innovation in VSLAs it organized in sites where the project will be setting up iMPAs.</p> <p>Behaviour change and willingness to pay questions have been integrated in the standard socio-economic survey tool developed by the team, which we plan to roll out in Year 2. An iMPA (i.e. the generation of MMPAs we will catalyse with Darwin grant) infographic was developed for use as standard orientation material.</p> <ul style="list-style-type: none"> • [Year4 Target]
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<p>Activity 1.1</p> <p>1.1 Project presentation and consultation meetings towards generation of Free Prior Informed Consent from municipal and barangay (village) governments and people's organizations</p>	<p>Project orientation meetings organized at community and municipal government (with municipal mayors and municipal councils) levels to introduce the project and generate support. Instead of PFIC, we opted to have memoranda of agreement (which are more formal and longer term) with municipal governments. By end of Year1, we have signed MOA with three partner municipal governments and the MOA with the two other municipalities already presented to municipal councils and are close to being signed. Below is the status of MOA with municipal governments:</p> <ol style="list-style-type: none"> 1. Ibajay, Aklan - MOA signed on 14 February 2018 2. Tangalang, Aklan - MOA signed on 13 March 2018 3. Sopian, Capiz - This municipality was dropped due to geographic constraints (i.e. limited size of municipal water meant a 200 ha iMPA was not possible). 4. Ivisan, Capiz - MOA on second reading with municipal council 5. Ajuy, Iloilo - MOA signed on 15 January 2018 6. Concepcion, Iloilo - MOA on first reading with municipal council (we have an existing MOA with this LGU due to our previous work in this area and the Mayor initially said he was happy to operate this project under that MOA. However, due to the scale and duration of the Darwin project, we subsequently agreed to prepare a new MOA)
<p>Activity 1.2</p> <p>1.2 Community (barangay) and People's Organization (PO) profiling using existing RRA tools</p>	<p>Profiling tool and rating system focused on seven assessment areas (i.e. ZSL work history, local governments support and buy in, presence of social infrastructures – POs, VSLAs, enterprise development potentials, potentials for 200-ha. no-take zone, presence of critical habitats, and presence of endangered species) was adopted to inform site identification and selection processes.</p> <p>Below are the number of communities covered by the community profiling we conducted:</p> <ol style="list-style-type: none"> 1. Ibajay, Aklan – 2 communities 2. Tangalang, Aklan – 5 communities 3. Sopian, Capiz – 8 communities 4. Ivisan, Capiz – 11 communities 5. Ajuy, Iloilo – 11 communities (ZSL already has data from 7 communities) 6. Concepcion, Iloilo - 9 communities

	<p>We used the community profiles we generated in 18 villages in Ajuy-Concepcion bay-scape to inform formulation of municipal Coastal Resource Management Plans and Barangay (village) Action Plans (Annex 16).</p> <p>Participatory coastal resource mapping (resource uses, fisheries, gears, target species), fishing grounds (for TURFs considerations), livelihoods, coastal issues, etc. were conducted in Jawili and Dumatad, Tangalan on 11Jan2018; Bugtongbato, Ibajay on 17Jan2018; Afga, Tangalan on 19Jan2018; Balaring, Ivisan, Capiz on 24Jan2018; Basiao, Ivisan on 25Jan2018.</p>
<p>Activity 1.3</p> <p>1.3 Socio-economic household baseline survey and report generation</p>	<p>Socio-economic baseline data-gathering tool developed and tested. Secondary socio-economic household data gathered in 18 villages in Ajuy-Concepcion bay-scape to inform preparation of the municipal Coastal Resource Management Plans and Barangay Action Plans</p>
<p>Activity 1.4</p> <p>1.4 Participatory site selection for 12 new MMPAs through:</p> <p>1.4.1 Coastal resource and habitat assessments and reporting</p>	<p>Rapid habit surveys employing bucket view method conducted in 19 sites across 6 municipalities in 3 bay-scapes. Below is the list of sites covered by rapid habitat surveys</p> <ol style="list-style-type: none"> 1. Jawili-Dumatad-Afga cluster, Tangalan 2. Sopian 3. Tuad Island, Ivisan 4. Bacjawan Norte & Sur cluster, Concepcion 5. Macatunao, Concepcion 6. Malangabang-Salvacion cluster, Concepcion 7. Polopina (Bulubadiangan & Danaodanao), Concepcion 8. Bago-Isi Gamay, Talutoan, Concepcion 9. Agho Island, Igbon, Concepcion 10. Botlog, Concepcion 11. Plandico, Concepcion 12. Dungon, Concepcion 13. Silagon-Bukana-Rojas cluster, Ajuy 14. Binunganan Dako (Pantalan Nabaye) & Binunganan Gamay (Bato Biasong), Ajuy 15. Guinasyan Dako (Pili) & Guinasyan Gamay (Malayuan), Ajuy 16. Tagunbanhan, Ajuy 17. Punta Buri, Ajuy 18. Nasidman and Calabasa Island, Ajuy 19. Luca-Pedada-Bayang, Ajuy

<p>1.4.2 GIS mapping</p>	<p>Please see Annex 17.</p> <p>Community feedback on the results of rapid habitat surveys were undertaken as follows:</p> <ol style="list-style-type: none"> 1. Brgy. Bugtongbato, Ibabay on 20Nov2017; 2. Brgy. Jawili, Tangalan on 11Dec2017; 3. Brgys. Dumatad and Afga, Tangalan on 15Dec2017. Expansion of NTZ in the Pangayawan reef was also consulted with to the participants where they responded positively to the idea. 4. During CRM Planning in Ajuy, Iloilo (30Jan-1Feb2018) 5. During FLE Training in Ajuy, Iloilo (8Feb2018) 6. During CRM Review in Concepcion, Iloilo (15Feb2018) 7. During AFLE Training in Concepcion, Iloilo (21Feb2018) 8. Brgy. Igbon (27Feb2018) 9. Municipality of Ajuy w/ representative per barangay (9Mar2018) 10. Municipality of Concepcion w/ representatives per barangay (14Mar2018) <p>Standard biological surveys were conducted in identified sites in Ajuy (13 barangays) and Concepcion (8 barangays). Please see Annex 18 for Ajuy Biological Assessment Report and Annex 19 for the Concepcion Biological Assessment Report</p> <p>Rough Google maps of the sites surveyed were generated and used in the initial community consultative meetings to facilitate building agreements on size and location of the NTZs, regulated fishing area, seaweed farming zones, and other uses (Annex 20)</p> <p>Several iterations of the GIS maps of Tambaliza iMPA were prepared after a series of ground validation.</p>
<p>Activity 1.5</p> <p>1.5 Exchange/learning visits of community leaders/champions to existing Mangrove in MPAs (MMPAs) within each bay-scape</p>	<p>We recently secured a small grant from the National Geographic Society as match funding. We will use portion of this small grant to support this learning visit. This activity is planned for Year2.</p>
<p>Activity 1.6</p> <p>1.6 Establishment or strengthening of governance structures of MMPAs with equitable membership</p>	

1.6.1 MMPA Management Council (MMC) formation and profiling	Provided advice to the municipality of Concepcion on the formation of the MMC for newly-established Tambaliza MMPA. The Office of the Mayor has committed to issue the executive order officially designating members of the management council.
1.6.2 MMPA Management Council meetings	
1.6.3 MMPA management planning	Planned and organized on 19-20 February 2018 initial broad-stroke MPA management planning with Tambaliza village officials, officers of the Tambaliza Small Fishers' Association (TASFA), Concepcion Municipal Agriculture Office, and Coastal Resource Management Office.
1.6.4 MMPA demarcation and zoning	<p>A team of field biologists and community organizers prepared technical design and cost estimate of marker buoys to delineate different spatial zones of Tambaliza MMPA. The 752-ha. newly-established Tambaliza MPA is huge and will require significant funding for demarcation. Resource from other existing grants, e.g. Adventist Development and Relief Agency, Waterloo Foundation, and the National Geographic Society. VSLAs committed their Environment Funds and local government have committed counterparts as well.</p> <p>Ground validation of proposed MMPA no-take zones (NTZ) conducted:</p> <ol style="list-style-type: none"> 1) Brgy. Silagon, Ajuy on 6Mar2018 - with president and vice president of Silagon Fisherfolk Association (SFA), representative of barangay council, and 3 sea wardens 2) Brgy. Salvacion and Malangabang on 7Mar2018– with barangay officials 3) Brgy. Punta Buri, Ajuy on 10Mar2018 – with barangay officials, sea wardens, local fishers, and ADRA. Temporary marker buoys were installed for the community have clearer understanding of the extent of the NTZ.
1.6.5 MMPA ordinance drafting, lobbying and approval by municipal governments	Ordinance formulation session with barangays officials, PO members and fishers, and the Adventist Development and Relief Agency was organized in Brgy. Punta Buri, Ajuy on 8-9Mar2018.
Activity 1.7	Year2
1.7 MMPA infrastructure establishment	
1.7.1 MMPA marker buoys	
1.7.2 MMPA guard house construction	
Activity 1.8	Year 2

<p>1.8 MMPA social network established composed of local POs/MMCs and VSLAs</p> <p>1.8.1 Annual meetings in each bayscape for experience sharing and cooperation</p>	<p>See 2.4 for related progress</p>
<p>Activity 1.9</p> <p>1.9 Annual conduct of MPA Management Effectiveness Assessment Tool (MPA MEAT)</p>	<p>ZSL has developed a MPA MEAT-based MPA strengthening interventions planning guide to ensure the iMPAs we are setting up under the Darwin grant will perform well in accordance with the national MPA MEAT management effective rating system.</p>
<p>Activity 1.10</p> <p>1.10 Formation/strengthening of VSLAs</p>	<p>Three new VSLAs (all of which have Environmental Funds) organized in Year1. Strengthening through monitoring and mentoring of 41 existing VSLAs across 14 sites conducted</p>
<p>Activity 1.11</p> <p>1.11 Roll-out Social Marketing campaign across each bay-scape</p>	<p>Year 2</p>
<p>Activity 1.12</p> <p>Preparation and submission of publication on ecological impact of MMPAs</p>	<p>Year 4</p>
<p>Output 2.</p> <p>2. Integrated Territorial Use Rights for Fisheries (TURFs) introduced within MMPAs (creating TURF-reserves or replenishment zones) in two bay-scapes to align fishers' incentives with sustainability and MPA management.</p>	<p>2.1 Buffer zones and managed fishing areas around MMPAs identified and established as part of MMPA ordinances and planning by Yr 2, of at least the same size (200ha) as the no-take zone at 17 MMPA sites.</p> <p>2.2 Rules on who can use these buffer zones and how, under what conditions, any benefit sharing arrangements, and how this is enforced included in appropriate management plans by Yr 2 and being implemented by Yr 3.</p> <p>2.3 Appropriate MMPA guardhouses</p> <p>The newly-legally established Tambaliza MMPA has a no-take zone of 203 ha. and buffer zone of 83 ha. – which is intended to become TURFs for community members who will be involved in the MPA management and enforcement. It has regulated use zone and seasonal fishing area of 36 ha. and 63 ha., respectively.</p> <p>The approved Tambaliza MMPA ordinance has broadly defined how preferential access to the buffer zone-TURFs will be regulated/managed</p> <p>Other ZSL grants (i.e. Waterloo, ADRA, National Geographic Society) have modest allocations for design and construction of dual purpose guardhouse. We</p>

	<p>designed to include opportunities to improve fisheries operations (e.g. seaweed drying platforms) by Yr 2 and implemented by Yr 3.</p> <p>2.4 Participation in MMPA management (number of people participating in patrols, attendance at monthly management committee meetings, proportion of apprehensions resulting in prosecutions) established at a minimum of 50% by Yr 2 and maintained >90% of capacity by Yr 4, including increasing # women fish/forest wardens in communities.</p> <p>2.5 Catch per unit effort (CPUE) electronic recording system in place by the end of Yr 1 and data shows CPUE greater for fishers in buffer zones and managed fishing areas than fishers outside by Yr 4.</p>	<p>are using these grant funds to leverage equity from local governments and VSLAs</p> <p>.</p> <p>[Year2 Target, but with progress in Year1]. Forty-six (44 civilians and 2 police officers) participated in the Fish Warden Orientation and Deputation in Ajuy, Iloilo. The 46 participants were deputized by Ajuy mayor as fish wardens. Forty-five participants from Ajuy-Concepcion bay-scape participated in the Advance Fishery Law Enforcement Training or AFLET. Twenty-two police officers and deputized fish wardens in Concepcion, Iloilo attended Coastal Law Enforcement Assessment Workshop to assess the current situation of coastal law enforcement in Concepcion. Bantay Dagat (Fish Wardens) Operations Manuals for Ajuy (Annex 21) and Concepcion (Annex 22) were formulated based on results of the coastal law enforcement assessments and fish warden training.</p> <p>Project Senior Biologist had a series of dialogues with a local fisheries expert to discuss possible methods we can employ to establish the CPUE baseline data. However, we need to secure the funding required for the actual roll out.</p>
<p>Activity 2.1</p> <p>2.1 Identification and demarcation of buffer zones for TURF areas</p>		<p>[Year2 target but with progress in Year1]</p> <p>A team project field biologists and community organizers started designing and cost-estimation of the marker buoys for the no-take zone and buffer zone-TURFs of the Tambaliza MPA.</p> <p>Grant funds from ADRA and National Geographic Society are pooled to support fabrication and installation of MPA billboards.</p>
<p>Activity 2.2</p> <p>2.2 TURFs governance and management planning</p>		<p>Year2</p>
<p>Activity 2.3</p> <p>2.3 Registration of fishers participating in TURF</p>		<p>Year2</p>
<p>Activity 2.4</p> <p>2.4 Construction of seaweed drying platforms in MMPA guard houses</p>		<p>Year2</p>

<p>Activity 2.5</p> <p>2.5 Fish catch/CPUE monitoring in TURF and control areas</p>	<p>Year2</p>
<p>Output 3.</p> <p>Diversified Net-Works business model supports environmental management and biodiversity conservation, and clears up marine debris.</p>	<p>3.1 15 VSLAs with environment pouch contributing funds to support MMPA management by Yr 1.</p> <p>3.2 15 Village agents (one per barangay) trained and replicating VSLAs from the parent VSLA by Yr 2. At least 50% women trained as village agents.</p> <p>3.3 All VSLAs collecting discarded fishing nets and selling them into the supply chain by Yr 2.</p> <p>3.4 Private code for assurance of the nylon and seaweed supply chains developed and fully tested by Yr1 demonstrating transparent and sustainable supply chain.</p> <p>3.5 24 families trained and actively farming 6ha of seaweed per community for 7 communities by Yr2 following social and environmental criteria and meeting assurance standards.</p> <p>3.6 A minimum of 50 families farming a minimum of 25ha of seaweed per community within 7 communities by Yr4, generating 3,000 tonnes of dry seaweed p.a. that meets</p> <p>As of March 2018, project team assisted 41 existing and 3 new VSLAs in 6 of the 14 selected sites. Of the 44 existing and new VSLAs, 39 VSLAs across 14 sites have been generating Environmental Funds to support implementation of MMPAs.</p> <p>Seven active VSLA agents and 6 apprentices regularly received coaching and mentoring support from community organizers.</p> <p>35 VSLAs in Ajuy-Concepcion bay-scape linked to Net-Works used fishing nets supply chain.</p> <p>Interface decided that they did not require a private code for assurance for nylon so this did not progress. We did work closely with FLOcert to understand the requirements and validate our methods against sustainable supply chain standards.</p> <p>Initial batch of 12 local fishers trained in seaweed farming. Of the thirteen (13) VSLA members who submitted letters of interest to farm seaweeds, 8 families were farming seaweeds in Year1. Four families received PhP119,000 worth production loan assistance from ZSL to initially develop 1/8 ha. seaweed farms. However, their crops were damaged by a typhoon early this year.</p> <p>Secured Gratuitous Permit from Concepcion municipality for seaweed production areas in Igbon. Assisted 13 farmers secure barangay business permits. Facilitated insurance coverage of 21 seaweed farmers.</p> <p>Thirty-two (32 ha.) of seaweed farming zones incorporated in approved spatial plan of Tambaliza MMPA. All selected sites in Ajuy-Concepcion bay-scape have at least 10 ha. of seaweed farming zones. Identified MMPA sites in Aklan and Capiz also have identified potential seaweed farming zone. However, thorough site suitability assessments and test farming need to be conducted in these sites.</p> <p>[Year 2 target]</p>

	<p>assurance standards for Net-Works Social and Environmental criteria and supports MMPAs. Technical specifications developed for the community-level production of blue carbon and marine PET (plastic in bottles) by Yr 2</p> <p>3.7 At least 50% of VSLAs producing and selling at least three new products into the supply chain by Yr 3, with 100% selling at least one product by Yr 3.</p> <p>3.8 Total of 100 tonnes of ocean-bound plastics (including nets and other materials) diverted into the supply chain from the three bay-scapes by Yr 4.</p> <p>3.9 Proportion of beach quadrats with plastics present reduced from 60% to 40% by Yr 4 at all sites.</p>	<p>[Year3 target]</p> <p>Pilot implementation of Trash for Health campaign (Annex 23) in two sites in Concepcion. Results have been promising, half ton of residual plastics were collected in Tambaliza. Municipal council of Concepcion expressed interest to integrate Trash for Health campaign in an evolving plastics ordinance</p>
<p>Activity 3.1.</p> <p>3.1 Setting up of environmental funds of formed/strengthened VSLAs, including profiling and databasing</p>		<p>All 3 new VLSAs have Environmental Funds. 36 of 41 existing VSLAs in 6 of the 14 selected sites have EFs.</p>
<p>Activity 3.2.</p> <p>3.2 VSLA village agents training and replication</p>		<p>Seven active VSLA agents and 6 apprentices (i.e. recruited directly from the VSLA ranks and training on-the-job) in Ajuy-Concepcion bay-scape received regular coaching and mentoring support from project community organizing team.</p>
<p>Activity 3.3</p> <p>3.3 Discarded fishing nets collection/recycling through Net-Works™ supply chain undertaken by VSLAs ??</p>		<p>35 existing VSLAs in Ajuy-Concepcion bay-scape linked to Net-Works used nets supply chain. At least two new sites in Ajuy identified to have potentials for integration in Net-Works supply chain.</p>
<p>Activity 3.4</p> <p>3.4 Development and test-run of private code for assurance of nylon and seaweed supply chains</p>		
<p>Activity 3.5</p>		

<p>3.5 Training on seaweeds farming and implementation among 50 target families in 7 communities</p>	<p>Thirteen (13) local fishers submitted letters of the interest to engage in seaweed farming. Twelve local fishers provided with seaweed farming skills training. Initial batch of eight (8) local fishers have been farming seaweeds, four (4) of whom also received production loan assistance from ZSL.</p>						
<p>Activity 3.6 3.6 Development of technical specifications for community-level production of blue carbon?? and plastics</p>							
<p>Activity 3.7 3.7 Production and selling of 3 new products by VSLAs into the supply chain</p>	<p>Six (6) VSLA members started selling dried seaweeds to ZSL. One (1) VSLA member sold seedlings to seaweed farmers in two other sites (Igbon and Pedada)</p>						
<p>Activity 3.8 3.8 Biophysical survey data collection of marine plastics using photoquadrat method</p>	<p><i>[No related progress]</i></p>						
<p>Output 4. Plan Vivo certificates for blue carbon in MMPAs from mangroves and seagrasses provide a mechanism for increased protection of coastal greenbelts and sustainable financing for coastal communities.</p>	<table border="0"> <tr> <td data-bbox="604 820 1088 1011"> <p>4.1 At least 106.5ha of mangrove forest areas in MMPAs (output 1) with approval granted by the LGU for stable tenure (e.g. CBFMAs granted) at two of our focal bay-scapes by the end of year 1.</p> </td> <td data-bbox="1088 820 2078 1011"> <p>Consultations with two (2) identified communities and municipal governments in Ibaday, Aklan and Ajuy, Iloilo were conducted. Orientations on blue carbon and Plan Vivo were conducted using the Plan Vivo orientation material prepared by the project social marketing specialists.</p> </td> </tr> <tr> <td data-bbox="604 1011 1088 1203"> <p>4.2 Ecosystem service pools identified and baselines established, and alternative scenarios i.e. business as usual determined at our two focal bay-scapes by the end of year 1.</p> </td> <td data-bbox="1088 1011 2078 1203"> <p><i>[No related progress]</i></p> </td> </tr> <tr> <td data-bbox="604 1203 1088 1410"> <p>4.3 Different project interventions identified and finalised through community consultations across two focal bay-scapes (i.e. REDD, sustainable use zones, reforestation) by the end of yr1 for</p> </td> <td data-bbox="1088 1203 2078 1410"> <p>[Year2 target]</p> </td> </tr> </table>	<p>4.1 At least 106.5ha of mangrove forest areas in MMPAs (output 1) with approval granted by the LGU for stable tenure (e.g. CBFMAs granted) at two of our focal bay-scapes by the end of year 1.</p>	<p>Consultations with two (2) identified communities and municipal governments in Ibaday, Aklan and Ajuy, Iloilo were conducted. Orientations on blue carbon and Plan Vivo were conducted using the Plan Vivo orientation material prepared by the project social marketing specialists.</p>	<p>4.2 Ecosystem service pools identified and baselines established, and alternative scenarios i.e. business as usual determined at our two focal bay-scapes by the end of year 1.</p>	<p><i>[No related progress]</i></p>	<p>4.3 Different project interventions identified and finalised through community consultations across two focal bay-scapes (i.e. REDD, sustainable use zones, reforestation) by the end of yr1 for</p>	<p>[Year2 target]</p>
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<p>4.2 Ecosystem service pools identified and baselines established, and alternative scenarios i.e. business as usual determined at our two focal bay-scapes by the end of year 1.</p>	<p><i>[No related progress]</i></p>						
<p>4.3 Different project interventions identified and finalised through community consultations across two focal bay-scapes (i.e. REDD, sustainable use zones, reforestation) by the end of yr1 for</p>	<p>[Year2 target]</p>						

	<p>submission under Plan Vivo. Confirm and implement ZSL's empirical research findings (Thompson et al 2014; Duncan et al. in prep) that suggest we have a mean of \$14-43K tradeable carbon per annum at our two focal bay-scapes based on current market VCS prices for Plan Vivo Standard by the end of year 2.</p> <p>4.4 Community-based management groups/ VSLAs established to implement and manage routine project activity, benefit sharing mechanism and report to the coordinator (ZSL) at both the focal bay- scapes by the end of year 2 with at least 50% women involved in project management</p> <p>4.5 At least 106.5 ha mangrove area protected within the MMPAs under a financial sustainability mechanism through carbon financing across two focal bay-scapes (Tangalan Bay, Aklan and Pedada Bay, Ajuy, Iloilo) by the end of year 3.</p> <p>4.6 Approved Verified Carbon Standard methodology for Tidal Wetland and Seagrass Restoration VM0033 used to map carbon potential at 3 bay wide ecosystems for inclusion in Plan Vivo by the end of year 4.</p>	<p>[Year2 target]</p> <p>[Year3 target]</p> <p>[Year4 target]</p>
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<p>Activity 4.1.</p> <p>4.1 Community consultation and key stakeholder meetings carried out to develop Project Idea Note and submitted to Plan Vivo</p>	<p>Plan Vivo community orientations and consultation conducted in the Brgy. Pedada, Ajuy and in KII, Ibajay communities. Orientation sessions with municipal government officials also conducted.</p>
<p>Activity 4.2.</p> <p>4.2 Technical specifications developed including the identification of viable carbon pools, other ecosystem services and development of carbon accounting methodologies</p>	
<p>Activity 4.3.</p> <p>4.3 Socio-economic surveys and participatory mapping conducted to inform sustainable use zones/payment mechanisms</p>	
<p>Activity 4.4.</p> <p>4.4 Community monitoring groups and potential nursery groups identified and trained, and monitoring plans co-developed</p>	<p>Community groups in Pedada and Bugtongbato and Naisud were given further training and technical support in the management of mangrove and beach forest nurseries with monitoring plans in place.</p>
<p>Activity 4.5.</p> <p>4.5 Community mangrove forest registered/approval granted from relevant authorities</p>	<p>Securing appropriate tenure arrangements for community-managed mangrove forest indicated as key area of collaboration in signed MOA with municipal governments of Ajuy, Iloilo and Ibajay, Aklan</p>
<p>Activity 4.6.</p> <p>4.6 Management body/people's organization for Tangalan Bay project area identified and established</p>	<p>Scanning for the presence of people's organisations in the area was among focus in the community profiling indicated in item #1.2.</p>
<p>Activity 4.7.</p> <p>4.7 Payment for ecosystem services (PES) agreement template developed through community consultation</p>	
<p>Activity 4.8.</p> <p>4.8 Project Design Document developed and technical specification finalised and submitted to Plan Vivo</p>	
<p>Activity 4.9.</p> <p>4.9 Project reviewed and validated by Plan Vivo</p>	<p>Year2</p>

<p>Activity 4.10. 4.10 Project registered under the Plan Vivo Standard</p>	<p>Year3</p>						
<p>Activity 4.11 4.11 Project registered with the Market Environmental registry</p>	<p>Year3</p>						
<p>Activity 4.12 4.12 Plan Vivo piloted and first annual report submitted to Plan Vivo triggering issuance of certificates</p>	<p>Year4</p>						
<p>Activity 4.13 4.13 Ongoing biological and socio-economic monitoring and second annual report submitted to Plan Vivo</p>	<p>Year4</p>						
<p>Activity 4.14 4.14 Approved Verified Carbon Standard methodology for Tidal Wetland and Seagrass Restoration VM0033 trialled for expansion of Plan Vivo to include seagrass and compared to current methods</p>	<p>Year4</p>						
<p>Activity 4.15 4.15 Potential PDD amendment document submitted to include seagrass</p>	<p>Year4</p>						
<p>Output 5. 5. Break donor dependence and create financially sustainable community-based management</p>	<table border="1"> <tr> <td data-bbox="604 916 1088 1102"> <p>5.1 Establish a business model for managing the revenues and costs associated with the supply chain for goods and services from communities (outputs 3 and 4) by Yr 1.</p> </td> <td data-bbox="1088 916 2078 1102"> <p>Profit and Loss of the diversified Net-Works business model updated to include revenue streams from ecological seaweed farming. Basic MPA establishment and maintenance costs (e.g. construction of MPA guardhouses, procurement of patrol boats, procurement and installation of the MPA marker buoys) are included as part of costs. Exploratory talks with companies that use carrageenan as component of their products initiated.</p> </td> </tr> <tr> <td data-bbox="604 1102 1088 1273"> <p>5.2 Recruit a small and local team at each bay-scape to maintain the supply chain and provide technical support to communities in MMPAs by Yr 2.</p> </td> <td data-bbox="1088 1102 2078 1273"> <p>[Year2 target]</p> </td> </tr> <tr> <td data-bbox="604 1273 1088 1409"> <p>5.3 Build the capacity of the local support team to manage the supply chain and support MMPAs through Training of Trainers in Net-</p> </td> <td data-bbox="1088 1273 2078 1409"> <p>[Year3 target]</p> </td> </tr> </table>	<p>5.1 Establish a business model for managing the revenues and costs associated with the supply chain for goods and services from communities (outputs 3 and 4) by Yr 1.</p>	<p>Profit and Loss of the diversified Net-Works business model updated to include revenue streams from ecological seaweed farming. Basic MPA establishment and maintenance costs (e.g. construction of MPA guardhouses, procurement of patrol boats, procurement and installation of the MPA marker buoys) are included as part of costs. Exploratory talks with companies that use carrageenan as component of their products initiated.</p>	<p>5.2 Recruit a small and local team at each bay-scape to maintain the supply chain and provide technical support to communities in MMPAs by Yr 2.</p>	<p>[Year2 target]</p>	<p>5.3 Build the capacity of the local support team to manage the supply chain and support MMPAs through Training of Trainers in Net-</p>	<p>[Year3 target]</p>
<p>5.1 Establish a business model for managing the revenues and costs associated with the supply chain for goods and services from communities (outputs 3 and 4) by Yr 1.</p>	<p>Profit and Loss of the diversified Net-Works business model updated to include revenue streams from ecological seaweed farming. Basic MPA establishment and maintenance costs (e.g. construction of MPA guardhouses, procurement of patrol boats, procurement and installation of the MPA marker buoys) are included as part of costs. Exploratory talks with companies that use carrageenan as component of their products initiated.</p>						
<p>5.2 Recruit a small and local team at each bay-scape to maintain the supply chain and provide technical support to communities in MMPAs by Yr 2.</p>	<p>[Year2 target]</p>						
<p>5.3 Build the capacity of the local support team to manage the supply chain and support MMPAs through Training of Trainers in Net-</p>	<p>[Year3 target]</p>						

	<p>Works, mangroves and MMPAs by Yr 3.</p> <p>5.4 Revenues from the supply chain generate around PhP80,000 (£1,333) monthly per bay-scape through new products to support the salaries and field activities of a small and local technical support team to maintain the supply chain and provide technical support to MMPAs by Yr 4.</p>	<p>[Year4 target]</p>
<p>Activity 5.1.</p> <p>5.1 Recruitment of small local teams at each bays-cape to maintain the supply chain and provide technical support to communities in MMPAs</p>		
<p>Activity 5.3.</p> <p>5.3 Capacity building of local support teams to manage the supply chain and support MMPAs</p> <p>5.3.1 Training of Trainers on NetWorks business model</p> <p>5.3.2 Training of Trainers on mangroves in MPAs</p>		

Annex 2: Project’s full current logframe as presented in the application form (unless changes have been agreed)

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

24. LOGICAL FRAMEWORK

Darwin projects will be required to report against their progress towards their expected outputs and outcomes if funded. This section sets out the expected outputs and outcomes of your project, how you expect to measure progress against these and how we can verify this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Community-based marine protection in the Philippines enhances resilience to natural disasters while helping meet national targets (15%), fully sustained through business models, reducing donor dependency and building sustainability.</p> <p>(Max 30 words)</p>			
<p>Outcome:</p> <p>(Max 30 words)</p> <p>Community-based conservation effectively protects 15% of bay-scape waters in three pilot bay areas (thereby meeting national and CBD targets), fully sustained by a diversified Net-Works business model that enhances socio-ecological resilience and reduces dependence on donor funding.</p>	<p>0.6 Increase number of MMPAs from three to 15, each of minimum 200 ha, totalling 15% of bay-scape waters (out to 3km) by Yr 4 (minimum of 3,400ha (17 villages; 200ha each) of no-take zone).</p> <p>0.7 Halt or reverse declines in key marine species and habitats (mangroves, seagrasses, coral reefs and indicator invertebrate/fish species) within three bay-scapes by Yr 4, having established baselines at new sites by Year 2.</p> <p>0.8 Set baselines in Yr1 through survey of stratified selection of households and achieve an average 20% improvement in locally-defined household</p>	<p>0.1 Municipal ordinances. GIS of bay-scapes with MMPAs plotted.</p> <p>0.2 Catch per unit effort (CPUE) surveys, Underwater Visual Census (UVC) surveys, photoquadrat surveys, remote sensing (using free satellite images and established ZSL methodologies, Duncan et al., 2016) on habitat changes, especially for mangroves/beach forests.</p> <p>0.3 Household surveys using our tried and tested socioeconomic M&E protocol with mobile data entry of a stratified sample of 500 households at beginning,</p>	<ul style="list-style-type: none"> ▪ Municipal and barangay local government units supportive. All have shown support to date; ▪ Further natural disasters, particularly tropical storms, typhoons and earthquakes do not hinder significantly project sites or activities. However, we were surprised how much conservation work the communities were willing to do even in the immediate aftermath of Typhoon Haiyan. ▪ Revenues in the business model can be made to match the costs of ongoing MMPA support – which depends on both increasing supply and price of goods, and finding efficient ways to reduce costs – something that we have already shown we are very effective at

	<p>wellbeing indicators (including subjective, material style of life, income and food security) by Yr4 (n=25,000 households total, min of 500 sampled in stratified selection)</p> <p>0.9 Livelihoods diversified from an average of 2.0 occupations per household in Yr 1 to 2.5 in Yr 4 (n=25,000)</p> <p>0.10 Business model from the diversified Net-Works business model and Plan Vivo supporting a small local team of Community Organisers and Biologists by Yr 4 to sustain community-based conservation activities and the supply chains, as reflected in Darwin budget.</p>	<p>middle and end of project.</p> <p>0.4 Analyzed MPA Management Effectiveness Assessment Tool (MEAT) Reports completed at beginning, middle and end of project.</p> <p>0.5 Business plans, MMPA management plans and budgets, Plan Vivo Projects Register and Project registration certificate, income from products in Net-Works supply chain, environment funds within VSLAs, counterpart funding committed from local government.</p>	<p>with Net-Works.</p> <ul style="list-style-type: none"> ▪ Presence of active People's Organizations engaged in Coastal Resource Management/fisheries management with high conservation awareness ▪ Receptivity of stakeholders to a new approach to conservation through business models.
<p>Outputs:</p> <p>1. Effective community-based management of 17 MMPAs across the 3 bay-scapes :</p> <ul style="list-style-type: none"> ▪ Pedada and Ajuy Bay, Iloilo Province linked to Concepcion Bay and Concepcion Islands, Iloilo (2 LGUs - Pedada and Ajuy) ▪ Sapijan Bay, Capiz Province (involving 2 LGUs - Ivisan and Sapijan) ▪ Ibajay-Tangalan Bay, Aklan Province, (2 LGUs – Ibajay and Tangalan) 	<p>1.11 Free Prior Informed Consent (FPIC) obtained from all relevant barangays by Yr 1, as a measure of community support and engagement.</p> <p>1.12 Village (barangay) profiles completed using Rapid Rural Appraisal approaches by Yr 1 that establish resource management needs and capacity at each site.</p> <p>1.13 Exchange visits completed to existing MMPAs within each bay-scape by Yr 1 to enthuse and educate community champions and provide practical demonstration of conservation</p>	<p>1.1 ZSL Ethics approval, FPIC forms.</p> <p>1.2 Village profile reports and data.</p> <p>1.3 Exchange visit activity reports and participant lists.</p> <p>1.4 New MMPA ordinances, MMPA management plans, MPA Management Council Profile, criteria from Coral Triangle MPA Network implementation manual achieved</p> <p>1.5 Coastal resource and habitat assessment reports and GIS maps</p> <p>1.6 Infrastructure e.g. marker buoys, guardhouses</p> <p>1.7 MMPA social network registered</p>	<p>2 Local champions can be found which has always been possible in previous communities although sometimes can be complicated by underlying political agendas.</p> <p>3 Community-level support for conservation is motivated by shared experiences with similar communities. We have found previously that cross-visits are highly effective but only when they are well planned with defined objectives, clear structure and follow up.</p> <p>4 Engagement and support from local government is secured</p>

	<p>interventions.</p> <p>1.14 Appropriate governance structures for 17 MMPAs (defined by municipal ordinances) with equitable membership (at least 50% women, and representing major social groups within each community) established or strengthened and meeting at least monthly by Yr 3.</p> <p>1.15 Participatory site selection for 12 new MMPAs and municipal ordinances obtained for these by Yr 2, with total area equating to 15% of bay-scape waters.</p> <p>1.16 One MMPA social network composed of local People's Organization POs/MPA Management Councils (MMCs), and VSLAs established and meeting bi-annually in each bay-scape for experience sharing and cooperation by Yr 2. At least 50% women participating in decision making in the social network.</p> <p>1.17 All MMPAs pass the criteria for Philippines MPA Effectiveness Assessment Tool (MEAT) level 1 ("MPA is established – with participatory process, adoption of management plan, and appropriate legislations and governance) by Yr 2 and MEAT</p>	<p>with list of members, meeting minutes and action plan</p> <p>1.8 MEAT assessments submitted to national MPA Science Network</p> <p>1.9 VSLA savings books, savings loans taken, environment fund savings and annual share outs</p> <p>1.10 Social marketing plan, interview responses, evaluation data</p> <p>1.11 Peer reviewed paper</p>	<p>throughout the project. Following the national elections in April 2016, government should be stable for 3 years but level of bureaucracy and time around MPA ordinances can vary depending on the village and LGU officials.</p> <p>5 Boundaries between municipalities are defined or can be resolved, especially where they may affect MPA establishment.</p>
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	<p>level 2 (“MPA management is effectively strengthened”) achieved in all MMPAs by Yr 4, from level 0 or 1 and on track for level 3 (which can only be achieved after 5 years of operation).</p> <p>1.18 15 VSLAs (see output 3) contributing their environment funds to appropriate management committees and management committees leverage funds from municipal LGUs to sustain management activities by Yr 2.</p> <p>1.19 Social marketing campaign delivered across each bay-scape by Yr 2 with baseline set in Yr 1 and willingness to pay for community-based marine conservation increased 50% by Yr 4 (or to minimum of PhP100 p.a. where baseline is PhP0) – indicating increased support for conservation due to pro-poor design and successful social marketing.</p> <p>1.20 Peer reviewed paper submitted for publication on ecological impacts of project’s MMPAs by Yr 4.</p>		
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<p>2. Integrated Territorial Use Rights for Fisheries (TURFs) introduced within MMPAs (creating TURF-reserves or replenishment zones) in two bay-scapes to align fishers' incentives with sustainability and MPA management.</p>	<p>2.6 Buffer zones and managed fishing areas around MMPAs identified and established as part of MMPA ordinances and planning by Yr 2, of at least the same size (200ha) as the no-take zone at 17 MMPA sites.</p> <p>2.7 Rules on who can use these buffer zones and how, under what conditions, any benefit sharing arrangements, and how this is enforced included in appropriate management plans by Yr 2 and being implemented by Yr 3.</p> <p>2.8 Appropriate MMPA guardhouses designed to include opportunities to improve fisheries operations (e.g. seaweed drying platforms) by Yr 2 and implemented by Yr 3.</p> <p>2.9 Participation in MMPA management (number of people participating in patrols, attendance at monthly management committee meetings, proportion of apprehensions resulting in prosecutions) established at a minimum of 50% by Yr 2 and maintained >90% of capacity by Yr 4, including increasing # women fish/forest wardens in communities.</p> <p>2.10 Catch per unit effort (CPUE) electronic recording system in</p>	<p>2.1 TURF areas defined on GIS maps with approved municipal ordinances</p> <p>2.2 TURF rules documentation and MMPA management plans with list/directory of registered TURF users</p> <p>2.3 Kg of seaweed dried per month on guardhouses</p> <p>2.4 Patrol records, apprehensions and fines records</p> <p>2.5 CPUE data</p>	<ul style="list-style-type: none"> ▪ Communities can reach agreement on location of buffer zones and managed fishing areas. Often these are a mechanism for implementing existing (unenforced) laws on fishing gears. ▪ Improved diversity of function of MPA guardhouses will enhance enforcement of no-take zones and illegal fishing activities through additional surveillance and active engagement of fishers. ▪ Women engage as fish/forest wardens which may be facilitated through training specific women's enforcement teams as successfully applied in South Africa and Nepal. ▪ CPUE electronic recording system currently used in collaborative ZSL projects in Mozambique apply in a Philippines context or can be adapted. Good understanding of fisheries in the Philippines, staff expertise, and connections with fisheries experts and existing data (USAID projects) should facilitate this.
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	<p>place by the end of Yr 1 and data shows CPUE greater for fishers in buffer zones and managed fishing areas than fishers outside by Yr 4.</p>		
<p>4. Diversified Net-Works business model supports environmental management and biodiversity conservation, and clears up marine debris.</p>	<p>4.1 15 VSLAs with environment pouch contributing funds to support MMPA management by Yr 1.</p> <p>4.2 15 Village agents (one per barangay) trained and replicating VSLAs from the parent VSLA by Yr 2. At least 50% women trained as village agents.</p> <p>4.3 All VSLAs collecting discarded fishing nets and selling them into the supply chain by Yr 2.</p> <p>4.4 Private code for assurance of the</p>	<p>3.1 VSLA Profiles in ZSL VSLA M&E database</p> <ul style="list-style-type: none"> • No. of VSLAs • No. of village agents • No. of environment pouches • total amount loaned • No. of loans/loan use • Total amount of environment funds • Agreement on environment pouch expenditure <p>3.2 Directory of village agents with contact details.</p>	<ul style="list-style-type: none"> ▪ Available conservation/ environmental champions suitable as village agents ▪ Viable markets for plastic waste other than nylon ▪ Net-Works systems and M&E are robust enough to convert to a private code. Sharing of the toolkit, current data collection methods and results through a series of meetings with FLOCert (leading experts and behind Fair Trade certification) have suggested this

	<p>nylon and seaweed supply chains developed and fully tested by Yr1 demonstrating transparent and sustainable supply chain.</p> <p>4.5 24 families trained and actively farming 6ha of seaweed per community for 7 communities by Yr2 following social and environmental criteria and meeting assurance standards.</p> <p>4.6 A minimum of 50 families farming a minimum of 25ha of seaweed per community within 7 communities by Yr4, generating 3,000 tonnes of dry seaweed p.a. that meets assurance standards for Net-Works Social and Environmental criteria and supports MMPAs. Technical specifications developed for the community-level production of blue carbon and marine PET (plastic in bottles) by Yr 2</p> <p>4.7 At least 50% of VSLAs producing and selling at least three new products into the supply chain by Yr 3, with 100% selling at least one product by Yr 3.</p> <p>4.8 Total of 100 tonnes of ocean-bound plastics (including nets and other materials) diverted into the supply chain from the three bay-scapes by Yr 4.</p> <p>4.9 Proportion of beach quadrats with plastics present reduced</p>	<p>3.3 Net quantities and sales records</p> <p>3.4 Technical specification document included in Net-Works Toolkit</p> <p>3.5 Business plans, VSLA records in M&E database, kg and price records through sales and return on investment reports, transport/export permits in supply chain.</p> <p>3.6 kg of plastic waste collected from project sites, kg of plastic recycled into viable product.</p> <p>3.7 kg of seaweed produced per family per month.</p> <p>3.8 Biophysical survey data from of beaches using our tried and tested photoquadrat method for detecting the abundance of marine plastics</p>	<p>is the case.</p> <ul style="list-style-type: none"> ▪ BFAR issue seaweed farming permits according to their current guidelines. ▪ Sustainable seaweed farming methods are adopted by families and not undermined by existing accepted practices e.g. use of polluting plastic ties. ▪ Loss of seaweed production due to weather/disease is within contingency parameters set within the business model (based on scientific research and extensive discussions with key stakeholders). ▪
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	from 60% to 40% by Yr 4 at all sites.		
<p>4. Plan Vivo certificates for blue carbon in MMPAs from mangroves and seagrasses provide a mechanism for increased protection of coastal greenbelts and sustainable financing for coastal communities.</p>	<p>1.1 At least 106.5ha of mangrove forest areas in MMPAs (output 1) with approval granted by the LGU for stable tenure (e.g. CBFMAs granted) at two of our focal bay-scapes by the end of year 1.</p> <p>1.2 Ecosystem service pools identified and baselines established, and alternative scenarios i.e. business as usual determined at our two focal bay-scapes by the end of year 1.</p> <p>1.3 Different project interventions identified and finalised through community consultations across two focal bay-scapes (i.e. REDD, sustainable use zones, reforestation) by the end of yr1 for submission under Plan Vivo. Confirm and implement ZSL’s empirical research findings (Thompson et al 2014; Duncan et al. in prep) that suggest we have a mean of \$14-43K tradeable carbon per annum at our two focal bay-scapes based on current market VCS prices for Plan Vivo Standard by the end of year 2.</p>	<p>4.1 Project registration certificate, Payment for Ecosystem Services agreement in place and copy of issuances.</p> <p>4.2 Project design document</p> <p>4.3 Agreements/ signed documents</p> <p>4.4. Technical specification document</p> <p>4.5. Technical specification document</p> <p>4.6. Meeting minutes/Constitutions and By Laws /Local Community Organiser contracted</p> <p>4.7 Survey results and amended Project Design Document</p>	<ul style="list-style-type: none"> ▪ Stable land tenure is existing or can be established for project sites ▪ Community agreement and buy-in to implement Plan Vivo ▪ Project is validated and verified under the Plan Vivo Standard. ▪ Plan Vivo and ZSL are able to secure buyers for each tonne of CO2e generated from the project ▪ Market price for tradeable carbon remains fairly stable and high therefore project costs are offset and communities benefit from income.

	<p>1.4 Community-based management groups/ VSLAs established to implement and manage routine project activity, benefit sharing mechanism and report to the co-ordinator (ZSL) at both the focal bay- scapes by the end of year 2 with at least 50% women involved in project management</p> <p>1.5 At least 106.5 ha mangrove area protected within the MMPAs under a financial sustainability mechanism through carbon financing across two focal bay-scapes (Tangalan Bay, Aklan and Pedada Bay, Ajuy, Iloilo) by the end of year 3.</p> <p>1.6 Approved Verified Carbon Standard methodology for Tidal Wetland and Seagrass Restoration VM0033 used to map carbon potential at 3 bay wide ecosystems for inclusion in Plan Vivo by the end of year 4.</p>		
<p>5. Break donor dependence and create financially sustainable community-based management</p>	<p>5.1 Establish a business model for managing the revenues and costs associated with the supply chain for goods and services from communities (outputs 3 and 4) by Yr 1.</p>	<p>5.1 Business models 5.2 Contracts 5.3 Training workshop reports, attendance sheets, evaluations and follow up assessments 5.4 Local government annual budget allocation, Barangay/PO</p>	<ul style="list-style-type: none"> ▪ Efficient approaches to MMPA management can be developed to ensure costs are within the scope of resources available within business models and local government resources. ▪ Funds can be accessed to the

	<p>5.2 Recruit a small and local team at each bay-scape to maintain the supply chain and provide technical support to communities in MMPAs by Yr 2.</p> <p>5.3 Build the capacity of the local support team to manage the supply chain and support MMPAs through Training of Trainers in Net-Works, mangroves and MMPAs by Yr 3.</p> <p>5.4 Revenues from the supply chain generate around PhP80,000 (£1,333) monthly per bay-scape through new products to support the salaries and field activities of a small and local technical support team to maintain the supply chain and provide technical support to MMPAs by Yr 4.</p>	<p>resolutions for budgetary request, Municipal Annual Investment Plans</p>	<p>right level to support MMPAs sustainably by Yr 4. We already have a strong track record with existing business models and counterpart funding from local government.</p>
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Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1. Effective community-based management of 17 MMPAs across the 3 bay-scapes (Pedada and Aju Bay and Concepcion Bay); Sapian Bay; and Ibajay-Tangalan Bay/Sibuyan Sea)
 - 1.1 Project presentation and consultation meetings towards generation of Free Prior Informed Consent from municipal and barangay (village) governments and people's organizations
 - 1.2 Community (barangay) and People's Organization (PO) profiling using existing RRA tools
 - 1.3 Participatory site selection for 12 new MMPAs through:
 - 1.3.1 Coastal resource and habitat assessments
 - 1.3.2 GIS mapping – Dalton? 40% time for data management incl bio etc.
 - 1.4 Exchange/learning visits of community leaders/champions to existing Mangrove in MPAs (MMPAs) within each bay-scape
 - 1.5 Establishment or strengthening of governance structures of MMPAs with equitable membership
 - 1.5.1 MMPA Management Council (MMC) formation and profiling
 - 1.5.2 MMPA management planning
 - 1.5.3 MMPA demarcation and zoning
 - 1.5.4 MMPA ordinance drafting, lobbying and approval by municipal governments

- 1.6 MMPA infrastructure establishment
 - 1.6.1 MMPA marker buoys
 - 1.6.2 MMPA guard house construction
 - 1.7 MMPA social network established composed of local POs/MMCs and VSLAs
 - 1.7.1 Annual meetings for experience sharing and cooperation
 - 1.8 Annual conduct of MPA Management Effectiveness Assessment Tool (MPA MEAT)
 - 1.9 Formation/strengthening of VSLAs
 - 1.10 Roll-out Social Marketing campaign across each bay-scape
 - 1.10.1 Undertake willingness to pay survey for community-based marine conservation
 - 1.11 Preparation and submission of publication on ecological impact of MMPAs
2. Integrated Territorial Use Rights to Fisheries (TURFs) introduced within MMPAs (creating TURF-reserves or replenishment zones) in two bay-scapes to align fishers' incentives with sustainability and MPA management
- 2.1 Identification and demarcation of buffer zones for TURF areas
 - 2.2 TURF governance and management planning
 - 2.3 Registration of fishers participating in TURF
 - 2.3 Construction of seaweed drying platforms in MMPA guard houses
 - 2.4 Fish catch/CPUE monitoring in TURF and control areas
3. Diversified NetWorks™ business model supports environmental management biodiversity conservation, and clears up marine debris
- 3.1. Setting up environmental funds of formed/strengthened VSLAs, including profiling and databasing
 - 3.2. VSLA village agents training and replication
 - 3.3. Discarded fishing nets collection/recycling through NetWorks™ supply chain undertaken by VSLAs
 - 3.4. Development and test-run of private code for assurance of nylon and seaweed supply chains
 - 3.5. Training on seaweeds farming and implementation among 50 target families in 7 communities
 - 3.6. Development of technical specifications for community-level production of blue carbon and plastics
 - 3.7. Production and selling of 3 new products by VSLAs into the supply chain
 - 3.8. Biophysical survey data collection of marine plastics using photoquadrat method
4. Develop and pilot a Plan Vivo certification for blue carbon in MMPAs from mangroves and seagrasses.
- 4.1 Community consultations and key stakeholder meetings carried out to develop Project Idea Note and submitted to Plan Vivo
 - 4.2. Technical specifications developed including the identification of viable carbon pools, other ecosystem services and development of carbon accounting methodologies.

- 4.3 Socioeconomic surveys conducted to inform sustainable use zones/payment mechanisms
 - 4.4 Community nursery/monitoring groups identified and trained and monitoring plans developed
 - 4.5 Community mangrove forest registered/ approval granted from relevant authorities
 - 4.6 Management body/Peoples Organisation for Tangalan Bay Project area identified and established
 - a. Payment for Ecosystem Services (PES) agreement template developed through community consultations
 - b. Project Design Document developed and technical specification finalised and submitted to Plan Vivo
 - 4.9 Project reviewed and validated by Plan Vivo
 - 4.10 Project registered under the Plan Vivo Standard
 - 4.11. Project registered with the Market Environmental registry
 - 4.12 Plan Vivo implemented at the community level and first annual report submitted to Plan Vivo
 - 4.13 Approved Verified Carbon Standard methodology for Tidal Wetland and Seagrass Restoration VM0033 trialled for expansion of Plan Vivo to include Seagrass and compared to current methods.
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- 2. Break donor dependence and create financially sustainable community-based management
 - 2.1 Recruitment of small local teams at each bayscape to maintain the supply chain and provide technical support to communities in MMPAs
 - 2.2 Capacity building of local support teams to manage the supply chain and support MMPAs
 - 2.2.1 Training of Trainers on NetWorks™ business model
 - 2.2.2 Training of Trainers on mangroves in MPAs

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
Established codes								
2	1x MSc on seaweed (Uni of Oxford) Two MSc projects assigned to Uni of Exeter students and underway	F M F	1x UK 1x UK 1x India	1 complete 2 in progress				
6A	Mangrove and Beach Forest Training of Trainers		Filipino	46				
6A	Seaweed farmers training	15 M; 2 F	Filipino	17				
9	MPA management plans**							
10	Community manual flipchart for Mangrove and Beach Forest rehabilitation			1				
14B	27th April 2018. Nick Hill presenting Net-Works which was selected as a finalist for the St Andrews Prize for the Environment. 19th February 2018. Heather Koldewey and Godof Villapando. Visiting Professors Public Lecture and Roundtable: International Wildlife Trade. Event organised by British Embassy in the Philippines. Ateneo de	2 M: 1 F	UK Filipino	9				

	<p>Manila University, Manila, Philippines. 14th February 2018. Heather Koldewey. Plenary speech at International Year of the Reef launch at Princes International Sustainability event with VIPs, business leaders and HRHs Prince Charles and Prince Harry. 22nd January 2018. Conservation for Communities. Workshop 'Sharing best practice in marine conservation and research' organised by CIIMAR (Interdisciplinary Centre Of Marine And Environmental Research - University of <i>Porto</i>) and ZSL, Portugal. 13th December 2017. Heather Koldewey. Opening Plenary speaker. Perspectives on reef conservation. European Coral Reef Symposium, University of Oxford, UK. 5th December 2017. Heather Koldewey. MSc Conservation and Ecology students lecture and workshop, University of Exeter, Cornwall</p>							
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	<p>campus. 16th October 2017 – Nick Hill presented Net-Works in a lecture to Exeter University 2nd year students studying Marine Vertebrate Conservation. 26th July 2017. Heather Koldewey. Keynote speaker. Marine Ecology and Conservation Network conference, University of Exeter Penryn campus. 27th April 2017. Guest speaker – Pew Bertarelli Global Ocean Legacy The Science and Culture of Marine Conservation on Rapa Nui, Easter Island, Chile.</p>							
22	<p>3 pilot sites 1) Tambaliza, Concepcion 2) Salvacion-Malangabang, Concepcion 3) Punta Buri, Ajuy</p>		Filipino					
23	<p>Match funding grants secured from a) National Geographic and b) Adventist Development and Relief Agency</p>							

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. weblink or publisher if not available online)
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Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

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.	√
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.	X
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.	√
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.	X
Have you involved your partners in preparation of the report and named the main contributors	√
Have you completed the Project Expenditure table fully?	√
Do not include claim forms or other communications with this report.	