

## Darwin Initiative Main Project Annual Report

### Darwin Project Information

Project Reference	21020
Project Title	Eels – A flagship species for freshwater conservation in the Philippines.
Host Country/ies	Philippines
Contract Holder Institution	Zoological Society of London
Partner institutions	TRAFFIC, Bureau of Fisheries and Aquatic Resources (BFAR), Biodiversity Monitoring Bureau (BMB)
Darwin Grant Value	£306,645
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Reporting period	1 <sup>st</sup> April 2015 – 31 <sup>st</sup> March 2016 (2)
Project Leader name	Matthew Gollock
Project website/blog/Twitter	<a href="https://www.zsl.org/conservation/regions/asia/freshwater-eel-conservation-in-the-philippines">https://www.zsl.org/conservation/regions/asia/freshwater-eel-conservation-in-the-philippines</a> <a href="https://twitter.com/zslmarine?lang=en-gb">https://twitter.com/zslmarine?lang=en-gb</a>
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### 1. Project Rationale

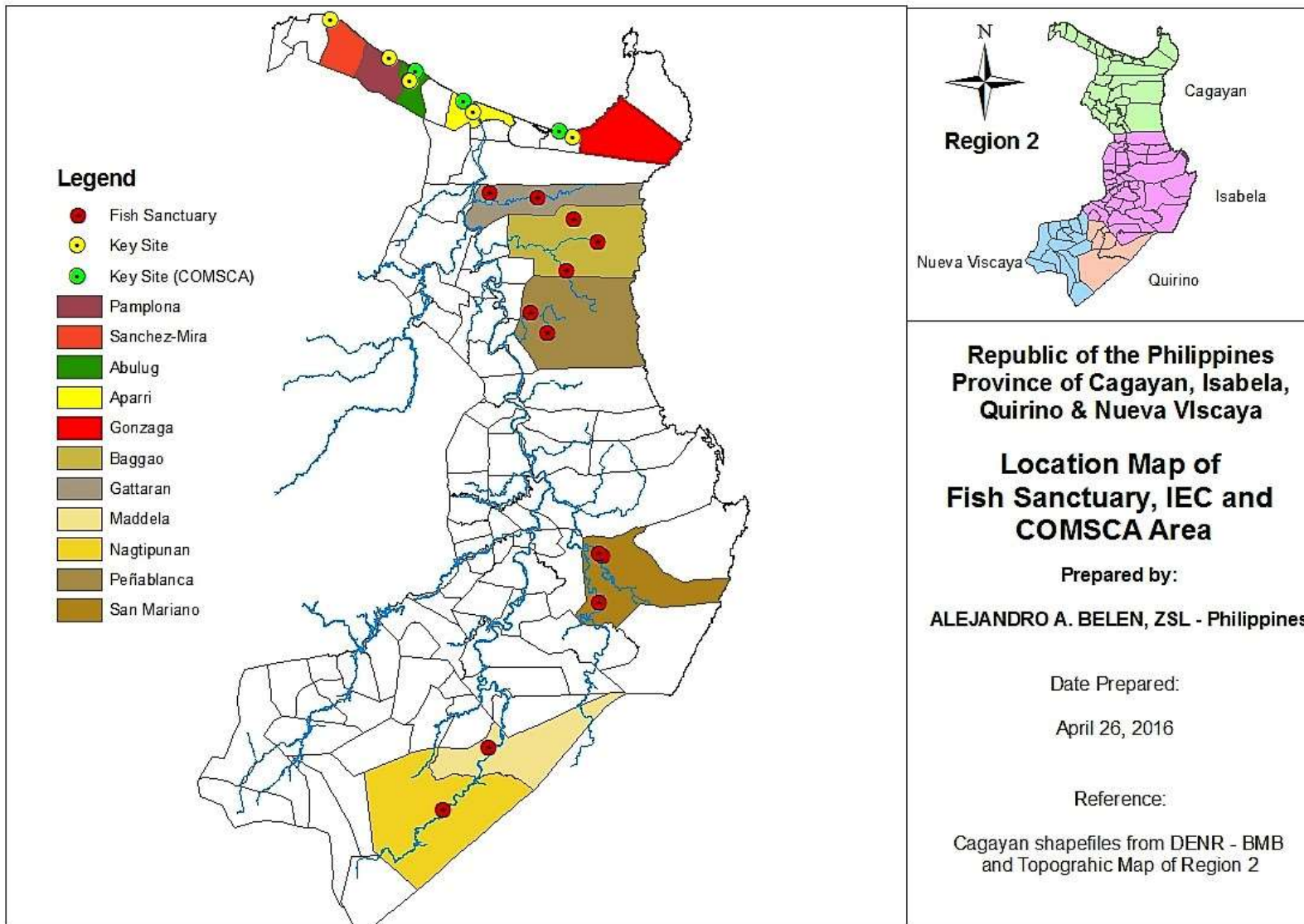
The rationale behind the project remains very similar to that submitted in the 2014-2015 annual report. This said there have been some approved changes that have amended some elements of the project. Despite our understanding that People's Organisations relating to fishers were not in existence, our socio-economic survey results indicated that this was not the case and that there were in fact Fisherfolk Associations (FFAs) in our focal area. As such, rather than creating new POs we felt it was sensible to engage with existing FFAs to achieve Output 3.

From our fisheries surveys we have found that there have been changes in the species composition of the eel catch, most likely due to changing oceanic conditions, and this has meant that demand for eels in Northern Luzon has reduced dramatically since the project began, as the favoured species, *Anguilla bicolor*, is not as abundant. As such it became clear that ensuring economic stability through livelihood interventions would be extremely difficult in light of the eel fishery being so volatile. Through conducting socio-economic surveys and focus group discussions, it became clear that; 1) communities are heavily dependent of fishing as a primary source of income, and 2) improving access to financial services i.e. savings and loans would be hugely beneficial for fishers, particularly as income was variable depending on what fish were in demand. In discussion with FFAs during a training course focussed on increasing organisational capacity, there was an appetite for developing Village Savings and Loan Associations – known locally as COMSCAs. This approach has now been incorporated into the project and will be discussed below.

The ZSL office is still based in Aparri, in Northern Luzon, however, we have now identified focal communities for carrying out project implementation and these are indicated on (Figure 1).

### 2. Project Partnerships

ZSL have continued to work closely with all three project partners throughout year 2. The partners were identified as to key to implementing the proposed project – which all focal points had input to prior to submission – and in the case of both BFAR and BMB, our in-country collaborators, ensuring that the project would have legacy. As stated in the year 1 report, BFAR are our primary in-country partner and our work on the data collection has been most closely with them. Further BFAR has been sponsoring and conducting a series of eel industry-related seminars and workshops which ZSL has participated in – most noticeably the Value Chain Analysis workshop in September 2015 where both ZSL and TRAFFIC staff presented project activities (See Annex 4). They are also covering costs for venue hire and attendance of



**Figure 1: Map indication focal sites – there are eight coastal FFAs that will receive a programme of IEC and training (three of which have self-selected to establish COMSCAs) and 12 communities linked to Freshwater Sanctuaries. The coloured areas indicate municipalities and associated LGUs.**

their staff to the enforcement workshop ZSL and TRAFFIC will also attend in May 2016 (output indicator 1.2 [OI 1.2]). BMB / DENR were involved in the habitat surveys and associated training and are being consulted as the write-up has progressed (OI 4.1-4.4). Both in-country partners are represented on the TWG and regularly input on the projects direction and progress (OI 1.1/2.1; see Annex 5).

The relationship between ZSL and BFAR is very fruitful and we are extremely saddened to know that the data collected from our project will be used directly to inform management of these species and the freshwater resources more broadly. That said, there have been challenges relating to the delayed approval of project activities – such as the enforcement workshop; but as this is occurring at the national scale we are often beholden to the availability of senior BFAR staff whose agendas change regularly. Further, the agendas of workshops are often finalised very close to the date of the meeting due to BFAR internal processes which can make planning problematic. ZSL are working to ensure that input is given to BFAR as earlier as possible in order to avoid this.

### **3. Project Progress**

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

We highlighted a number of slippages in timing in Y1 and identified a need for a three month extension to the project completion date – now 30/6/17. However, Y2 has still been very productive and below we describe progress on activities continuing or commencing in Y2:

##### 1.2 Regular national, regional and municipal eel stakeholder meetings and associated engagement relating to policy development are initiated (Y1Q1-Y4Q1).

Quarterly TWG meetings composed of representatives from ZSL, BFAR, BMB, DENR and other relevant stakeholders continue to be held to monitor project progress and encourage representative input (see Annex 5). ZSL communicates less formally with all TWG members during day to day activities when required. There is also on-going community engagement through the municipal Local Government Units (LGU) and barangay councils, in relation to the establishment of freshwater sanctuaries via barangay ordinances (see activity 4.3).

##### 1.3 Governmental policy development and implementation process is supported (Y1Q3-Y4Q1).

In the past year, our partner BFAR has developed a number of initiatives in light of recommendations in the report produced by TRAFFIC as part of Activity 1.1 (OI 1.3). To increase transparency and traceability of eel trade in-country, it is being proposed that transport permits, issued by BFAR, now have specific locations identified to ensure movement within the country can be traced (see Annex 6). Further, to improve the accuracy of export data it has been proposed that there will be a distinction made between anguillid eels and *Monopterus* sp. (swamp eels) on all permits, an issue that had meant data relating to anguillid eels was often very inaccurate (see Annex 7). Eel farms are now being registered in the Philippines, which had not previously been occurring (see Annex 7).

BFAR have committed to using data produced from the project to strengthen the national Fisheries Administrative Order (FAO) 242 which relates to eel export – the specifics of this strengthening are still being discussed within BFAR. A timeframe for these policy changes has not been confirmed at the time of writing, as there are national elections in the Philippines in May.

We have included an update on the trade of anguillids in the Philippines (see Annex 8).

##### 1.4 Enforcement training courses are run in fisher communities and river wardens deputised (Y2Q2-Y3Q3).

TRAFFIC and ZSL have been trying to finalise a date with BFAR for the enforcement workshop for the past six months. The date has been moved three times to our frustration due to calendar conflicts within BFAR but has now been confirmed as 16<sup>th</sup>-18<sup>th</sup> May. This aims to focus on training BFAR staff who have the potential to come in to contact with illegal trade networks e.g. enforcement staff and customs officers (OI 1.2/1.4). As previously stated in our Y2 half year report, training of communities will focus on managing inland freshwater resources (OI 4.3/4.4; see Activities 4.1-4.4), as under the current legislative framework they have no remit to enforce illegal fishing and trade.

1.5 Relevant CITES authorities are engaged to ensure existing and future legislation relating to trade in anguillid eels is fully implemented (Y1Q1-Y4Q1).

CITES regulations relating to species found in the Philippines remain unchanged (see section 4) - we continue to communicate with the national CITES co-ordinator, Edwin Alesna. At the time of writing, none of the species of eels in the Philippines were being proposed for listing at CoP17 this year, and as such illegal shipments of the European eel to East Asia remain the primary CITES concern. Both TRAFFIC and ZSL are engaged in a number of fora that have allowed communication of the project and legislation in the Philippines relating to trade in eels, in the context of CITES, at the international level. For example, the situation in the Philippines was presented to the Japan Fisheries Agency at a meeting in September 2015 by TRAFFIC staff, and both the project leader and a TRAFFIC staff member has been invited to a small workshop in May 2016 relating to aquatic species listed on CITES appendix. The IUCN Anguillid Eel Specialist Group – chaired by the Project Leader and including the TRAFFIC project focal point – has also been highlighted in a proposal to CITES by the EU (<http://ec.europa.eu/environment/cites/pdf/cop17/eels.pdf>).

2.1 Regular national, regional and municipal eel stakeholder meetings and associated engagement relating to management plan are initiated (Y1Q1-Y4Q1).

Similar to activity 1.2 the TWG meetings have allowed regular assessment by both partners and stakeholders of the progress and direction of the development of eel management (OI 2.1). The most recent TWG meeting was specifically devoted to drafting an outline for the eel management plan (EMP) (see Annex 5). In addition to this, we are ensuring that training in our focal sites includes basic fisheries management and data collection techniques to ensure the EMP is input to once implemented (OI 2.3/3.6).

A Value Chain Analysis (VCA) workshop was held in September 23rd-25th 2015 by BFAR and included their staff, industry stakeholders and project staff from ZSL and TRAFFIC, with a view that elements of the output would inform the EMP (See Annex 4). We are waiting for the report from this workshop from BFAR.

2.2 Eel fishery is assessed, recommendations developed and eel management plan – including a best practice guide - is produced (Y1Q2-Y2Q3).

As stated above, the drafting of the eel management plan has begun. This is behind schedule partially due to the delay in the project starting, but also due to the volume of data that has been collected as part of our fisheries, habitat and socio-economic surveys (OI 3.1/4.1; see Y1 report for examples of collected data). We feel it is essential that this is properly analysed to make the EMP as robust as it can be. We expect the document to be completed by Y3Q3.

Our fisheries dependent survey monitoring the annual cycle of species composition and abundance has just been completed and the data is presently being analysed. This is being corroborated through molecular analysis carried out by BFARs National Fisheries Research and Development Institute (NFRDI) (see Annex 9). As indicated in our Y2 half year report, there has been a shift in the composition of the eel catch away from *Anguilla bicolor*, the species preferred by the East Asian market, and there is significantly less eel fishing in Cagayan than there was three years ago. Communications with colleagues at BFAR indicate that fisheries in Mindanao are far more active. This situation will be taken in to account in the EMP.

Market surveys are continuing in order to monitor the changing prices in glass eels.

2.3 Key sites and appropriate methods for fisheries independent monitoring of anguillids are identified and data collection initiated (Y1Q3-Y4Q1).

Twelve key sites have been identified for the establishment of 'Fish Sanctuaries' as part of our engagement with LGUs and carrying out the habitat survey (see Figure 1 and Activities 4.1 - 4.4). It has been agreed with the communities that are adjacent to the sanctuaries that biodiversity monitoring – including fisheries-independent monitoring of eels – would be implemented. We are presently having eel traps made and expect that the monitoring will begin throughout Y3Q1 and Y3Q2 as the sanctuaries are established (OI 2.2).

3.1 Baseline socio-economic and needs assessments are carried out in fisher communities (Y1Q2-Y2Q3).

This has been completed - 12 municipalities consisting of 61 barangays and 2,575 fisherfolks were engaged (OI 3.1; see Y1 report for questionnaire). Follow-up focus-group discussions were carried out in the identified eight key coastal fishing sites (see Figure 1).

3.2 Household fisheries-related income is monitored through socioeconomic surveys and analysed and fed into fisheries management plan development and implementation (Y1Q2-Y4Q1).

Analysis and report writing is on-going and we expect to complete this by Y3Q2 (OI 3.1). The results have identified that 'eel fishers' *per se* do not exist; there are general fishers who catch eels when there is demand and an acceptable price, and making a significant impact on income has been challenging. We have therefore shifted the focus of our intervention from income to savings, and the monitoring of this will be through the COMSCAs (see Activities 3.5 and 3.6).

3.3 Existing Fisherfolk Associations are enhanced and strengthened at key locations across the range of the fishery and regular meetings between FFAs, local government and other key stakeholders are established (Y1Q2-Y4Q1).

Eight existing FFAs - Bisagu, Aparri; Toran, Aparri; Abulug, Centro; Pamplona, Nagupacan; Sanchez Mira, Namuac; Santa Ana, Centro; Gonzaga, Caroan; and Camalaniugan, Sapping have been identified for further training and engagement (see Figure 1) as part of the socio-economic survey (OI 3.2). We are meeting with them regularly and will be discussing the draft eel management plan with key stakeholders in the FFAs (OI 2.1).

3.4 Training of existing Fisherfolk Associations in organisational capacity and collection of fisheries dependent data e.g. CPUE and in basic fisheries management theory and techniques is initiated in concert with IEC programme (Y1Q3-Y4Q1).

Training in increasing capacity was delivered 18th-21th November 2015 as a first step (see Annex 10) (OI 3.3). Members from six of our eight key sites were able to attend – the other two were unable due to the fishing season, but were briefed by ZSL staff afterwards. Resources for the training and education programme are presently being developed and activities will be initiated before the end of Y3Q1 – this is slightly later than suggested in the Y2 half-year report but report-writing has been more time-consuming than expected.

3.5 VSLA training is carried out in key locations and, through self-selection within the FFAs and associated communities are developed with facilitation, and established (Y2Q4-Y3Q4).

This activity was added in Y2Q4 and was identified from the results of the socio-economic survey. Three FFAs - Bisagu, Aparri; Abulug, Centro; and Gonzaga, Caroan - have self-selected to establish COMSCAs (the Filipino term for VSLAs) which ZSL staff are now facilitating through initial training and on-going engagement – Abulug, Centro will commence in earnest after the election (OI 3.4; see Annex 11). This process requires an intervention of 12 months – decreasing in intensity throughout the cycle. The groups have chosen to include an environmental fund which will be used for activities which will benefit natural resources.

3.6 Data collection and analysis from VSLAs (Y3Q1-Y3Q4).

Data on saving and loans per member of the COMSCAs is submitted to ZSL quarterly and as such we will receive the first report in Y3Q1 (OI 3.5; see Annex 12).

3.7 Fisheries dependent data collection is initiated and submitted to BFAR (Y1Q4-Y4Q1).

As stated in the Y2 half year report, we expect data gathering to commence in Y3Q1 via the key FFAs once training has been delivered, but the depressed state of the eel fishery may mean data specific to these species is lacking (OI 3.6). We will be highlighting the importance of this data collection for all exploited species.

3.8 Fisheries dependant and independent data are used to optimise fishery and inform annual management actions to ensure sustainability Y2Q1-Y4Q1).

Data from Activities 2.3 and 3.7 will be used to ensure that objectives of the EMP are achieved once it has been implemented (OI 3.6).

4.1 Baseline biodiversity, habitat and threat surveys of the Cagayan River are carried out and reports produced (Y1Q2-Y2Q3).

The habitat survey was carried out in Y2 as described in the Y2 half year report (OI 4.1/4.2). The survey report is presently being drafted and edited. We expect it to be finalised in the next six weeks.

4.2 Meetings with key stakeholders relating to potentially damaging activities are held, and mitigation activities are proposed in light of reports produced in 4.1 (Y1Q2-Y4Q1).

Twelve key sites have been identified through Activity 4.1 (OI 4.3; see Figure 1). In collaboration with the associated communities, we aim to use these as case studies for threat mitigation in the region. Through on-going engagement at the local, regional and national level, we will be able to highlight the threats freshwater systems face and how they can be reduced and/or managed.

4.3 Mitigation measures are developed and implemented in key sites along the Cagayan River (Y2Q1-Y4Q1).

Freshwater Sanctuaries – protected areas, where no fishing can take place - have begun to be established at the key sites; six have been identified as poor quality and six good quality to allow comparison (OI 4.3; see Annex 13). An IEC programme will also be implemented during Y3Q1 and Y3Q2 – in concert with the training described in Activity 4.4 - as part of the engagement with these communities to highlight the importance of freshwater systems and how the threats can impact them and those that rely on them. River wardens will be deputised as part of this engagement.

4.4 Monitoring of biodiversity indicators on the Cagayan River is initiated (Y2Q3-Y4Q1).

Communities will be trained in baseline biodiversity and fisheries independent monitoring during Y3Q1 and Y3Q2, and we are facilitating communications between BFAR and BMB, and focal communities/LGUs to ensure the data is submitted and utilised by the appropriate government agency (OI 4.4).

5.1 Seed stock for farming at BFAR facilities are collected in collaboration with selected fisher communities (Y1Q2-Y2Q4).

This has occurred as part of Activity 2.2, however, after extended discussion, it was agreed that this element of work would be brought to an early close (see Activity 5.2), and as such this activity has been halted.

5.2 Farming conditions e.g. water quality / feed regimes are optimised and methodologies are produced (Y1Q2-Y2Q4).

As stated in the Y2 half-year report the farming project experienced high mortality due to issues beyond our control, such-as high temperatures and poor groundwater quality on-site – tilapia cultured by BFAR also died during this period. As such, our ability to optimise growth conditions have been limited and those that did survive were not showing good growth rates. We have engaged a number of the eel farms that have proliferated in the Philippines during the last two years to compare methods and many of them have had similar issues trying to culture these tropical species. In addition to this, the abundance of the species that has the highest market value has declined in the region over the past three years. As such, we concluded that community-based farming would not be feasible or cost-effective (OI 5.2/5.3).

5.3 Feasibility study – including recommendations – is produced (Y2Q4-Y3Q2).

The date for production of the feasibility study was brought forward after it was decided to end this element of the project early. The data is presently being consolidated and analysed, and report writing will commence once this has been completed (OI 5.3).

### 3.2 Progress towards project outputs

<b>Output 1:</b>	<b>Local and national legislation and policy is amended to ensure any international trade is sustainable and CITES commitments are being met.</b>		
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>
<b>Indicator 1.1</b> Trade analysis carried out to inform development of management plan and policy and legislation	No analysis carried out prior to project initiation.	Trade analysis complete and recommendations to government produced.	<a href="http://goo.gl/0LGxwc">http://goo.gl/0LGxwc</a>



development by end of year 1.				
<b>Indicator 1.2</b> Enforcement capacity is increased to ensure sustainable management through training of government and communities (including appointment of local river wardens) through years 2 and 3.	Poor government enforcement capacity in relation to trade in illegal eels.	Enforcement workshop has been planned for May 2016.		Close liaison with BFAR to ensure appropriate attendees to workshop – this will allow follow-up with regards to effectiveness of enforcement.  The reference to community training is more appropriate for Output 4 and a change request will be submitted to amend the indicators accordingly.
<b>Indicator 1.3</b> New, scientifically-informed, legislation developed through a consultative process is implemented at the local, regional and national level by the end of year 3.	National legislation was in place but illegal trade was still occurring.	Improved traceability of national trade is being addressed. Data from project is being shared with BFAR to inform development of FAO 242.	Annexes 6 and 7	Measured through the implementation of new legislation.
<b>Indicator 1.4</b> Illegal exports are reduced by the end of year 3.	The scale of illegal trade was poorly understood.	We are still monitoring the sale of glass eels via online adverts – export of eels under 15cm is illegal from the Philippines and as such these adverts are a proxy for illegal trade.	Annex 7	It will be very difficult to determine whether there has been a measurable decline in illegal trade, however, we believe that with improvements in enforcement and traceability in the Philippines, illegal trade will be impacted.
<b>Output 2:</b>	<b>Sustainable eel management plan for the Cagayan River Basin integrated from the community to the national level.</b>			
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>	
<b>Indicator 2.1</b> Eel management plan is developed with stakeholder engagement by middle of year 2.	No EMP is in place.	Biological and socio-economic data has been collected during Y2 to input to the EMP. EMP development and stakeholder engagement process has begun.	Annex 5	ZSL are co-ordinating the EMP development and are monitoring progress through stakeholder input/approval. A change request will be submitted to amend completion date.
<b>Indicator 2.2</b> Collection of fisheries-independent data on eel species in the Cagayan is initiated by the end of year 1.	No fisheries independent monitoring in place.	Sites for monitoring have been identified – Fish sanctuaries. Training in monitoring will be carried out in Y3.	Figure 1	Training and IEC materials will be produced as evidence of progress. A change request will be submitted to amend initiation date.
<b>Indicator 2.3</b> Eel population and fisheries data indicate that new management practices are ensuring stocks of the multiple anguillid species in the	No stock assessment had taken place.	Fisheries and market has been collected during Y2 and will inform the EMP which is presently being drafted.		Due to the huge variability in demand nationally and internationally for glass eels, long-term monitoring of the stocks through fisheries may

catchment are not impacted to their detriment by the end of year 3.				be challenging. We are discussing this with BFAR and will address the issue as part of the EMP.
<b>Output 3</b>	<b>Existing Fisherfolk Associations (FFAs) are trained to manage eel fisheries, collect fisheries dependent data at the community level, and attain financial stability through VSLAs.</b>			
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>	
<b>Indicator 3.1</b> Needs and socio-economic assessments identify key capacity issues to be addressed by FFAs and number of beneficiaries identified and disaggregated by household and gender by the end of Q3 year 2.	No socio-economic assessment had taken place.	Socio-economic assessment was completed.		Data is presently being analysed, however, it is very time-consuming and as such we expect the report to be written by Y3Q2.
<b>Indicator 3.2</b> Candidate FFAs are identified and the process of establishment is initiated by the end of year 1.	FFAs were established but often only existed in name only.	FFAs in eight key sites were identified through the socio-economic survey and through engagement with barangay councils. A capacity building workshop was held.	Figure 1 and Annex 10.	
<b>Indicator 3.3</b> Training courses are held to teach FFAs and other associated stakeholders about data collection, enforcement and fisheries management during years 2 and 3.	FFAs had little, if any, training.	IEC and training materials are being developed for implementation in Y3.		Activities related to this have been delayed and as such we will amend the indicator to include a more realistic timeline.
<b>Indicator 3.4</b> VSLAs are established in three key locations (with a maximum of 25 persons per group) to include members from candidate FFAs and associated communities during year 3 – these will be self-reliant by Q1 Y4.	No COMSCAs had been established in FFAs.	COMSCA training delivered to three communities and groups established.	Annex 11	ZSL staff will engage with COMSCAs for the full 12 months until self-reliance to monitor progress.
<b>Indicator 3.5</b> Using baseline data collected from the socio-economic survey, disaggregated by household and gender, VSLAs are monitored during Y3 to ensure savings and loan use increases and members have greater financial stability by end of Q1 year 4.	No savings monitoring had taken place.	Will begin Y3.	Annex 12	
<b>Indicator 3.6</b> Collection of fisheries-dependent and national trade data on the anguillid species of the Cagayan River is initiated and delivered to BFAR in-line with management plan recommendations by the end of Q4 year 2.	No fisheries dependent data had been collected to date.	Training will begin in Y3.		A change request will be submitted to amend the timeline.
<b>Output 4</b>	<b>Aquatic survey methods are established to monitor the freshwater biodiversity</b>			



<b>in the Cagayan River Basin and key threats are mitigated against.</b>				
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>	
<b>Indicator 4.1</b> Baseline biodiversity assessment of the Cagayan River has been carried out by the end of year 1 and standardised methodology has been adopted by partner agencies by the middle of year 2.	No biodiversity study had been carried out in the region using a standardised methodology.	Habitat surveys carried out in key sites around the Cagayan River Basin in collaboration with BMB, BFAR and LGUs.	See Annex 13 of Y1 report for standardised data collection sheet.	The report is presently being written and will be completed in the next six weeks.
<b>Indicator 4.2</b> Threat assessment is carried out to prioritise mitigation activities by the middle of year 2.	No threat assessment has been carried out in the CRB.	This was carried out at key sites as part of the habitat survey.		See above.
<b>Indicator 4.3</b> Threat mitigation actions are developed and implemented in collaboration with stakeholders responsible for potentially damaging activities by the end of year 3.	No mitigation activities had been implemented.	Twelve key sites identified for establishment as Freshwater Sanctuaries – will be protected from damaging activities and monitored by community volunteers/river wardens.	See Annex 13.	Sites were identified in collaboration with barangay councils.
<b>Indicator 4.4</b> A suite of biodiversity indicators is developed and regular monitoring at key sites on the Cagayan River is initiated by the end of year 3.	No monitoring was in place.	In collaboration with BMB, a suite of monitoring for eels, and other freshwater flora and fauna are presently being developed.		IEC and training will be delivered in Y3 and monitoring reports from sanctuaries will evidence progress.
<b>Output 5</b>	<b>Pilot farming project and long-term feasibility study for eel farming is complete.</b>			
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>	
<b>Indicator 5.1</b> Pilot farming project at BFAR facilities is initiated by the end of year 1.	No eel culture was in place at the BFAR facilities.	Eel farming feasibility study was on-going in Y2.	See Annex 11 of Y1 report for monitoring sheets	
<b>Indicator 5.2</b> Communities and other stakeholders are engaged, through site visits, throughout years 1 and 2.	Very few communities /eel stakeholders had been exposed to the farming of the species.	We have carried out a number of courtesy visits to eel farms in the Philippines and engage with the national trader's organisation (IGAT) regularly. This has highlighted that many of the commercial enterprises are experiencing similar problems.		It was agreed that communities would not be invited to the pilot farm to manage expectations.
<b>Indicator 5.3</b> Feasibility study of the pilot project is completed by the end of Q2 year 3.	No feasibility study in place.	The farm study is being finalised and the report drafted.		

### 3.3 Progress towards the project Outcome

<b>Outcome:</b>	<b>Conservation of eels measurably improves freshwater biodiversity in the Cagayan River as a result of ecologically sustainable, community-led management and exploitation, and equitable national and international trade.</b>			
	<b>Baseline</b>	<b>Change by 2016</b>	<b>Source of evidence</b>	<b>Comments</b>
<b>Indicator 1.</b> Local and	FAO 242	New legislation is	Annex 6 and 7	We are working with BFAR

national legislation is effective in managing the supply chain of eels, and local enforcement capacity is increased resulting in a reduction of illegal trade by 25% by the end of year 3.	was in place however illegal export of glass eels was continuing.	being introduced to increase transparency and enforcement capacity is being increased through training.		to strengthen FAO 242. TRAFFIC continue to monitor online activity.
<b>Indicator 2.</b> Eel fisheries are sustainably managed and equitable, as a result of the establishment and implementation of fisheries management plans by the end of year 3.	No EMP was in place.	Biological and socio-economic data has been collected during Y2 to input to the EMP. EMP development and stakeholder engagement process has begun.	Annex 5	We expect the EMP to be in place by the end of Y3Q3. Due to the highly variable nature of the fishery, ensuring the national trade is equitable is likely to be beyond the scope of the project; however we have established COMSCAs to ensure that fishers are able to save when eel prices are high. We will submit a change request to amend this indicator.
<b>Indicator 3.</b> Four FFAs are established resulting in improved local stakeholder capacity, and government staff capacity is increased through training ensuring the eel fishery management plan is effective by the end of year 3.	Eight existing FFAs have been utilised rather than establishing new ones.	Capacity training was given to six of the key sites	Annex 10	IEC/training focussed on fisheries management will be delivered in Y3. Government staff capacity will be addressed via the enforcement training.
<b>Indicator 4.</b> Key threats to the freshwater environment are identified and mitigation plans in place resulting in a 5% improvement in abiotic indicators of freshwater biodiversity by the end of year 3.	A comprehensive habitat survey and threat assessment had not taken place.	Habitat survey and threat assessment have been carried out. Mitigation is being approached by the establishment of freshwater sanctuaries in twelve sites.	Annex 13	Monitoring will be established in Y3 via IEC and training at the twelve sites. We are working with BMB to develop easily-identifiable flora and fauna indicator species.
<b>Indicator 5.</b> The pilot farming project is managed by ZSL and government staff resulting in the development of a feasibility study report by Q2 the end of year 3.	A pilot study had not been established.	A pilot study, including feed trials was ongoing during year 2.		A feasibility study is presently being drafted.

### 3.4 Monitoring of assumptions

#### **Outcome:**

1. Riverine exploitation projects e.g. mining are not developed further.

We are not aware of any increased exploitation within the CRB – mining has decreased from our discussions with LGUs and BFAR.

2. Currency rates/rate of inflation does not fluctuate to levels that compromise delivery of the project.

Currency rates have not impacted the project.

3. Prices of eels in black market does not increase to such a high level that illegal fisheries proliferate and enforcement becomes impossible.

Prices have declined from when the project began, however, Illegal trade continues and enforcement is poor, however, BFAR are taking steps to address this (Annex 6 and 7).

4. Eel fishery does not collapse.

The fishery has not collapsed within the Philippines but has shifted intensity from the project site to the Southern islands. We are expanding the scope of the EMP to address this.

5. Management plan is accepted by fisher communities.

LGUs and Barangay councils have been engaged from the beginning of the project in relation to its aims and the development of an EMP. There is large-scale support for the management of the eel resources as indicated by the on-going engagement of FFAs.

6. Supply-chain actors buy in to the long-term development of sustainable fisheries management.

We have engaged consolidators and traders, and market sellers, from the beginning of the project. There has been no initial resistance to the programme of work – this will be detailed in the socio-economic report which includes data specifically relating to traders.

7. Pilot farming project is successful.

The pilot study has indicated that farming of tropical eel species at the community level would be extremely challenging. This has also been the experience of many of the commercial farms that have established over the past three years.

8. Natural disaster does not affect project sites.

To date we have been mercifully free from any major natural disasters.

**Outputs:**

1. All key stakeholders are willing to engage in the fora for development of management plans and policy development, and associated training courses.

The TWG has attendance from government agencies, NGOs and fishers representatives, all of whom are essential to both management and policy development. The establishment of both COMSCAs and fish sanctuaries is indicative of a commitment to the aims of the project.

2. There will be no resistance to proposals in changes in legislation locally, regionally and nationally.

At present there have been no meaningful changes in policy at the national level, however, changes to permitting will be implemented in Y3 by BFAR. Fish Sanctuaries require a barangay ordinance, and as such, support from the communities within the barangay - these have begun to be ratified in the twelve key sites (see Annex 13).

3. Changes in government at next election do not impact on the government partners and project objectives.

The election will be held on 9<sup>th</sup> May 2016. We discussed the possibilities of an impact with BFAR colleagues and their only concern was the possibility of delays due to imposed periods of inactivity either side of the election. To date the project has not been impacted by this.

4. Newly developed enforcement measures are effective.

We will monitor this in collaboration with BFAR as they are implemented during Y3.

5. Fishers are willing to amend practices in line with management plan recommendations.

We will monitor this in collaboration with BFAR as they are implemented during Y3.

6. Key stakeholders relating to potentially damaging activities on the Cagayan River engage with project staff to discuss mitigation and CSR.

The habitat survey revealed that threats were often linked to communities – e.g. fly-tipping, slash and burn agriculture – as such we have engaged barangays through the process of establishing fish sanctuaries (see Annex 13). The adoption of this process with the key sites indicates that stakeholders are willing to discuss and implement mitigation.

7. Local stakeholders do not view eel farming as a 'silver bullet' but part of an overall management strategy

We did not initiate community visits to the farm to manage expectations. Engagement with all stakeholders has taken a cautionary line with regards to the feasibility of eel farms.

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

Our impact statement is as follows - *'To promote conservation and sustainable management of freshwater biodiversity in the Philippines to meet CBD targets and support equitable community-level fisheries free from over-exploitation and involvement in illegal international trade.'* Our project is recognised as being one of the first to address freshwater conservation on this scale in the Philippines and is focussing on the largest river basin in the country (as stated in our stage 2 application). As such, it is raising awareness of freshwater conservation at the national level, supporting the recognition of this ecosystem as one in need of urgent attention in relation to CBD targets (see section 5 below). Assessing key sites (OI 4.1/4.2) and establishing mitigating interventions such as Fish Sanctuaries (OI 4.3) will ensure freshwater systems are better understood and protected.

A key element of the project relates to increasing capacity and natural resource stewardship in key sites through IEC and training (OI 2.2/2.3/3.2/3.3/4.4), the aim of which is to ensure our focal communities will be more resilient to the threat of poverty (see section 6 below). The project has identified that 'eel fishers' *per se* do not exist; there are general fishers who catch eels when there is demand and an acceptable price, and making a significant impact on income has been challenging. Consequently, we have thus shifted our focus towards savings in three of the key sites (OI 3.4; see previous references to COMSCAs), and this, in concert with training, will further empower these communities.

## **4. Contribution to SDGs**

SDG targets relevant to the project are: 1.4 (Equal access – including finance mechanisms) 6.6/15.1 (Freshwater conservation/protection), 12.2 (Sustainable use) 15.5 (Biodiversity protection) 15.7 (Wildlife trafficking) and 17.9 (Capacity building). Through capacity building and establishment of COMSCAs (OI 3.3/3.4) we are increasing the opportunities for fisherfolks, many of whom are living hand to mouth. And by ensuring that the aquatic resources they rely upon are managed and protected effectively through the establishment of management plans and mitigation actions (OI 1.2/1.3/3.1), and increasing these communities understanding and stewardship of them, the project will have a lasting positive impact.

## **5. Project support to the Conventions, Treaties or Agreements**

The national CITES contact has been kept apprised of the project but at the time of writing, no species of anguillid eel were being proposed for addition to a CITES Appendix (see Section 3.1: 1.5 for further text relating to CITES-focussed activities).

BMB are the national representatives in relation to the CBD and we have regular communications with them as project partners. As stated in the Y1 report, both the 4<sup>th</sup> (<https://www.cbd.int/doc/world/ph/ph-nr-04-en.pdf>) and 5<sup>th</sup> (<http://www.cbd.int/doc/world/ph/ph-nr-05-en.pdf>) National Report to the CBD highlight freshwater systems as a focus of urgent conservation attention. The projects fundamental aim is to increase our understanding of the largest freshwater system in the Philippines and begin to implement management measures that will protect these resources – Outputs 1-4 are all underpinned by this aim.

We highlighted the following Aichi targets 1, 6 and 14 as being relevant to the project in our stage 2 application. Community engagement and stewardship of natural resources is being addressed through Outputs 2, 3 and 4, which also relate to the development of the eel management plan.

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

The initial results of the socio-economic survey (OI 3.1) have indicated that fisherfolks are often living hand to mouth with limited governance and empowerment within the community. Further, income can often be variable in coastal communities due to the changes in glass eel species composition and external demand. The project is working to address these issues broadly, but specifically in the eight focal coastal communities and the twelve communities that are supporting the establishment of the Fish Sanctuaries (Figure 1).

Training in resource management will be rolled out in Y3 with the aim of increasing both the understanding and stewardship of aquatic ecosystems and their services (OI 3.3). This will increase capacity and skills, and empower communities to ensure that the natural resources

they rely upon are well managed. The capacity training (Annex 10) offered to the key coastal FFAs was aimed at empowering these groups and ensuring they were able to engage in fora where issues that would impact them and the natural resources they rely upon are discussed. Due to the uncertainty of income due to factors beyond our control, we shifted the focus of our livelihood intervention from income to savings by offering COMSCA training to three communities (OI 3.4). In the two sites where COMSCAs have begun, there have already been pay-outs relating to healthcare and livelihood development. The decision to include an environmental fund by the groups highlights the wish to invest in biodiversity (see Annex 12). Additionally, these funds are potential leverage for matched funding from LGUs allowing larger scale activities to occur. As COMSCAs are self-sufficient after 12 months with a very low rate of failure we view this as a long-term impact on poverty - 89% are still in existence after 5 years with a 98% membership retention; see key facts <http://www.vsla.net/>.

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

We are still analysing the socio-economic survey data but this will be disaggregated by gender to determine any disparities. One major impact of the project on females has been the introduction of COMSCAs – from the two we have established 75% of the membership are women which is in line with the estimate provided in the ‘key facts’ here <http://www.vsla.net/> (see also Annex 11, the sign in sheet has 16 females and 1 male). This indicates that women are often the ones that control the finances in a household and the COMSCAs give them a mechanism to do this in a more structured way.

## **8. Monitoring and evaluation**

We have a number of systems in place in order to monitor and amend the project as it progresses. Communications are key to this process and occur on a daily (emails between partners), weekly (Project leader with in-country project manager; in-country staff meetings), monthly (ZSL monthly reports – see Y1 report for example), quarterly (TWG meetings – Annex 5), bi-annually (Darwin reporting and associated project visits by project leader including comprehensive logframe and budget review with staff and TWG) and annually (ZSL staff performance reviews). These communications/processes ensure that we are assessing the project activities against the indicators and associated spend. The identification of key FFAs and communities and the progression of interventions such as the training workshops, EMP, Fish Sanctuaries and COMSCAs are indicative that the project is having a positive impact and achieving its aims (OI 2.1/3.2/3.3/3.4/4.3). The project was used as a monitoring and evaluation case study at a recent DI workshop – a copy of the presentation can be provided on request.

## **9. Lessons learnt**

The projects biggest flaw could arguably be that it was over-ambitious in its scope. Several of the streams of work are behind schedule, though we do expect to complete them before the project ends. However, despite this, there has been huge support for it in-country and the objectives are broadly being met. The socio-economic survey was over-ambitious in scale and on reflection we would reduce the number of questions and participants, as the analysis has slowed progress towards report writing and the EMP production. However, it has been invaluable with regards to engagement with stakeholders at the national, local and individual level which has garnered support for the project and year three activities. Further it has identified our focal FFAs and helped to guide interventions (COMSCAs) and IEC/training needs and materials.

Illegal trade is still a problem and one that we are recognising will be very challenging to impact. Through our work and discussion with partners since the project began, the scale of the issue is larger than originally understood. Further the fluctuation in recruitment – possibly due to changing oceanic conditions – was something that has occurred since the project began. As such, demand through legal channels is very variable and requires grow-out to >15cm, the illegal market is obviously a lucrative alternative. This said we do feel that our relationship with BFAR has stimulated steps towards addressing the issue of illegal trade and we see this as a theme of work that we will continue beyond the life of this project.

In the past month we have agreed that the farming of anguillid eels is not feasible at the community level at present. However, as a feasibility study, this has served its purpose, we have managed stakeholder expectations from its inception and it has also encouraged engagement with industry – many of whom have suffered similar issues to us.

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

TWG minutes have been included in the annexes and frequency clarified (quarterly).  
Assumptions have been assessed as requested

### 11. Other comments on progress not covered elsewhere

N/A

### 12. Sustainability and legacy

ZSL have positioned themselves as an important player in the field of eel, and freshwater, conservation in the Philippines. Data from the project is going directly to BFAR, the government agency responsible for managing eel resources and to BMB, who manage the freshwater habitat more broadly. The project is working to initiate self-sustaining community-based initiatives - FFAs/COMSCAs and Freshwater Sanctuaries - that will begin to feed data to these GOs should the project cease. Building relationships between the communities and the agencies is a key element of the work. Within the agencies themselves ZSL and TRAFFICs work has led to developments in improving the chain of custody and associated enforcement, and the production of an EMP will have a lasting impact on management of these species. The above is in-line with our present exit strategy.

### 13. Darwin Identity

In-country the Darwin logo sits side-by-side with partner logos on all communications relating to the project (see Annex 14; also see fish sanctuary signage in Annex 13). Further, in all consultation meetings or publications, DI, and specifically DfID, is acknowledged as the funder. This project has not been borne out of any previous work by ZSL in this part of the Philippines and as such is a stand-alone Darwin project, however, ZSL have (had) a number of DI-funded projects and within our partners, such as BFAR and BMB, DI is a known entity.

We do not have a project specific Twitter, however, we do have a general ZSL Marine and Freshwater Twitter account which project updates are posted on (e.g. <https://twitter.com/ZSLMarine/status/712232642674954240?lang=en-gb> ).

### 14. Project Expenditure

Project spend (indicative since last annual report)	2015/16 Grant	2015/16 Total Darwin Costs	Variance	Comments
Staff costs (see below)			+10%	
Consultancy costs			0	
Overhead Costs			+6%	
Travel and subsistence			+8%	
Operating Costs			-21%	We had envisioned that the enforcement workshop would be taking place in Y2 but due to a number of date changes due to BFAR staff availability it has now been moved to Y3.
Capital items (see below)			-34%	Both cost and necessity of aquaculture equipment was over-estimated.
Others (see below)			+1%	
<b>TOTAL</b>				

We acknowledge that there is an overspend of £XXXX – primarily related to the administrative error indicated above. ZSL will absorb this extra cost.

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2015-2016

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p><b>Impact</b> To promote conservation and sustainable management of freshwater biodiversity in the Philippines to meet CBD targets and support equitable community-level fisheries free from over-exploitation and involvement in illegal international trade.</p>		<p>Our work this year has focussed more broadly on the freshwater environment with habitat surveys taking place and an increased engagement with local governments and communities with the aquatic resources they rely upon. This has included establishment of protected areas. We have also been working with communities to establish VSLAs which will help to buffer the periods during which external demand for eels is low.</p>	
<p><b>Outcome</b> Conservation of eels measurably improves freshwater biodiversity in the Cagayan River as a result of ecologically sustainable, community-led management and exploitation, and equitable national and international trade.</p>	<p><b>Indicator 1.</b> Local and national legislation is effective in managing the supply chain of eels, and local enforcement capacity is increased resulting in a reduction of illegal trade by 25% by the end of year 3.</p> <p><b>Indicator 2.</b> Eel fisheries are sustainably managed and equitable, as a result of the establishment and implementation of fisheries management plans by the end of year 3.</p>	<p>BFAR are presently exploring and developing ways to improve permitting and traceability of trade of anguillid eels in-country. The proposal of new customs codes to specifically identify anguillid eels is aimed at reducing illegal exports.</p> <p>Consolidation of socio-economic, habitat and fisheries data, and first steps in developing EMP.</p>	<p>On-going engagement with policy-makers at the municipal, regional and national level.</p> <p>Enforcement training workshop in May 2016.</p> <p>Implementation of strengthened permitting / customs initiatives.</p> <p>Continued monitoring of East Asian Customs import data and online adverts.</p> <p>Drafting of EMP and support from key stakeholders.</p> <p>EMP is adopted nationally.</p> <p>Data from eel fisheries is collected by key communities and submitted to BFAR.</p>



	<p><b>Indicator 3.</b> Four FFAs are established resulting in improved local stakeholder capacity, and government staff capacity is increased through training ensuring the eel fishery management plan is effective by the end of year 3.</p> <p><b>Indicator 4 .</b>Key threats to the freshwater environment are identified and mitigation plans in place resulting in a 5% improvement in abiotic indicators of freshwater biodiversity by the end of year 3.</p> <p><b>Indicator 5.</b> The pilot farming project is managed by ZSL and government staff resulting in the development of a feasibility study report by Q2 the end of year 3.</p>	<p>Eight key FFAs have been identified and capacity training has been carried out. Training in the establishment of COMSCAs has been carried out in three of these communities.</p> <p>Habitat survey was completed. Twelve focal sites were identified for establishing Fish Sanctuaries and associated monitoring.</p> <p>A range of feed regimes were trialed in order to optimise growth, however, mortality was high and growth rates not considered high enough for commercial needs.</p>	<p>Continuation of training programme to include fisheries management and data collection.</p> <p>Initiation of data collection.</p> <p>COMSCAs mature to become self-sufficient.</p> <p>Fish Sanctuaries are established and ratified by Barangay council.</p> <p>Monitoring of focal sites initiated on a monthly basis, and data submitted to BMB / BFAR.</p> <p>River wardens deputised.</p> <p>Complete feasibility study.</p>
<p><b>Output 1.</b> Local and national legislation and policy is amended to ensure any international trade is sustainable and CITES commitments are being met.</p>	<p><b>Indicator 1.</b> Trade analysis carried out to inform development of management plan and policy and legislation development by end of year 1.</p> <p><b>Indicator 2.</b> Enforcement capacity is increased to ensure sustainable management through training of government and communities (including appointment of local river wardens) through years 2 and 3.</p> <p><b>Indicator 3.</b> New, scientifically-informed, legislation developed through a consultative process is implemented at the local, regional and national level by the end of year 3.</p>	<p>N/A</p> <p>Enforcement workshop to be carried out held May 2016. River wardens will be deputised as part of Output 4 activities.</p> <p>In progress – in-country permitting / customs procedures and policy are being reviewed and strengthened. FAO 242 is being reviewed in light of data gathered as part of the project.</p>	

	<b>Indicator 4.</b> Illegal exports are reduced by the end of year 3.	In-progress - customs data and on-line resources are presently being monitored - update carried out September 2016.
<b>Activity 1.1</b> Trade policy, enforcement and existing data review, and policy and legislation development document is drafted and agreed.		Complete – update produced (see Annex 8)
<b>Activity 1.2</b> Regular national, regional and municipal eel stakeholder meetings and associated engagement relating to policy development are initiated.		Quarterly TWG meetings (see Annex 5). ZSL communicates less formally with all TWG members during day to day activities when required. On-going community engagement through LGUs and barangay councils.
<b>Activity 1.3</b> Governmental policy development and implementation process is supported.		BFAR has developed a number of initiatives relating to traceability and transparency in the chain of custody (Annexes 6 and 7). BFAR have committed to using data produced from the project to strengthen the national Fisheries Administrative Order (FAO) 242 which relates to eel.
<b>Activity 1.4</b> Enforcement training courses are run in fisher communities and river wardens deputised.		TRAFFIC, ZSL and BFAR enforcement workshop will take place 16 <sup>th</sup> -18 <sup>th</sup> May. This will focus on training BFAR staff who have the potential to come in to contact with illegal trade networks e.g. enforcement staff and customs officers. Training of communities will focus on managing inland freshwater resources (see Activities 4.1-4.4).
<b>Activity 1.5</b> Relevant CITES authorities are engaged to ensure existing and future legislation relating to trade in anguillid eels is fully implemented.		We continue to communicate with the national CITES co-ordinator, Edwin Alesna, but at the time of writing, none of the species of eels in the Philippines were being proposed for listing at CoP17 this year. Both TRAFFIC and ZSL are engaged in a number of fora that have allowed communication of the project and legislation in the Philippines relating to trade in eels, in the context of CITES, at the international level.
<b>Output 2.</b> Sustainable eel management plan for the Cagayan River Basin integrated from the community to the national level.	<b>Indicator 1.</b> Eel management plan is developed with stakeholder engagement by middle of year 2.  <b>Indicator 2.</b> Collection of fisheries-independent data on eel species in the Cagayan is initiated by the end of year 1.  <b>Indicator 3.</b> Eel population and fisheries data indicate that new management practices are ensuring stocks of the multiple anguillid species in the catchment are not impacted to their detriment by the end of year 3.	Biological and socio-economic data has been collected during Y2 to input to the EMP. EMP development and stakeholder engagement process has begun. We expect this to be complete Y3Q3.  Sites for monitoring – fish sanctuaries - have been identified and training/IEC in monitoring will be carried out in Y3.  Fisheries and market has been collected during Y2 and will inform the EMP which is presently being drafted. Due to the huge variability in demand nationally and internationally for glass eels, long-term monitoring of the stocks through fisheries may be challenging. We are discussing this with BFAR and will address the issue as part of the EMP.
<b>Activity 2.1.</b> Regular national, regional and municipal eel stakeholder meetings and associated engagement relating to management plan and policy development are initiated.		TWG meetings have allowed regular assessment by both partners and stakeholders of the progress and direction of the development of eel management. The most recent TWG meeting was specifically devoted to drafting

	<p>an outline for the eel management plan (EMP) (see Annex 5). VCA workshop was held in September 23rd-25th 2015 by BFAR and elements of the output would inform the EMP (See Annex 4).</p>
<p><b>Activity 2.2.</b> Eel fishery is assessed, recommendations developed and eel management plan – including a best practice guide - is produced.</p>	<p>EMP data consolidation and drafting has begun and we expect it to be completed by Y3Q3. Our fisheries dependent survey is being corroborated through molecular analysis carried out by BFAR's NFRDI (see Annex 9). There has been a shift in the composition of the eel catch away from <i>Anguilla bicolor</i>, the species preferred by the East Asian market, and there is significantly less eel fishing in Cagayan and that fisheries in Mindanao are far more active. This situation will be taken in to account in the EMP. Market surveys are continuing in order to monitor the changing prices in glass eels.</p>
<p><b>Activity 2.3.</b> Key sites and appropriate methods for fisheries independent monitoring of anguillids are identified and data collection initiated</p>	<p>Twelve key sites have been identified for the establishment of 'Fish Sanctuaries' and communities that are adjacent to the sanctuaries will carry out fisheries-independent monitoring of eels. We expect that the monitoring will begin throughout Y3Q1 and Y3Q2 as the sanctuaries are established.</p>
<p><b>Output 3.</b> Existing Fisherfolk Associations (FFAs) are trained to manage eel fisheries, collect fisheries dependent data at the community level, and attain financial stability through VSLAs.</p>	<p><b>Indicator 1.</b> Needs and socio-economic assessments identify key capacity issues to be addressed by FFAs and number of beneficiaries identified and disaggregated by household and gender by the end of Q3 year 2.</p> <p><b>Indicator 2.</b> Candidate FFAs are identified and the process of establishment is initiated by the end of year 1.</p> <p><b>Indicator 3.</b> Training courses are held to teach FFAs and other associated stakeholders about data collection, enforcement and fisheries management during years 2 and 3.</p> <p><b>Indicator 4.</b> VSLAs are established in three key locations (with a maximum of 25 persons per group) to include members from candidate FFAs and associated communities during year 3 – these will be self-reliant by Q1 Y4.</p> <p>Socio-economic assessment was completed. Data is presently being analysed, however, it is very time-consuming and as such we expect the report to be written by Y3Q2.</p> <p>FFAs in eight key sites were identified through the socio-economic survey and through engagement with barangay councils. A capacity building workshop was held.</p> <p>IEC and training materials are being developed for implementation in Y3.</p> <p>COMSCA training delivered to three communities and groups established.</p>

	<p><b>Indicator 5.</b> Using baseline data collected from the socio-economic survey, disaggregated by household and gender, VSLAs are monitored during Y3 to ensure savings and loan use increases and members have greater financial stability by end of Q1 year 4.</p> <p><b>Indicator 6.</b> Collection of fisheries-dependent and national trade data on the anguillid species of the Cagayan River is initiated and delivered to BFAR in-line with management plan recommendations by the end of Q4 year 2.</p>	<p>This will begin in Y3.</p> <p>Training will begin in Y3.</p>
<p><b>Activity 3.1.</b> Baseline socio-economic and needs assessments are carried out in fisher communities.</p>		<p>This has been completed - 12 municipalities consisting of 61 barangays and 2,575 fisherfolks were engaged. Follow up focus-group discussions were carried out in the identified eight key coastal fishing sites (see Figure 1).</p>
<p><b>Activity 3.2.</b> Household fisheries-related income is monitored through socioeconomic surveys and analysed and fed into fisheries management plan development and implementation.</p>		<p>Analysis and report writing is on-going and we expect it to be complete by the end of Y3Q1. We have shifted the focus of our intervention from income to savings, and the monitoring of this will be through the COMSCAs (see Activities 3.5 and 3.6).</p>
<p><b>Activity 3.3.</b> Existing Fisherfolk Associations are enhanced and strengthened at key locations across the range of the fishery and regular meetings between FFAs, local government and other key stakeholders are established (Y1Q2 to Y4Q1).</p>		<p>Eight existing FFAs have been identified for further training and engagement (see Figure 1). We are meeting with them regularly and will be discussing the draft eel management plan with key stakeholders in the FFAs.</p>
<p><b>Activity 3.4.</b> Training of existing Fisherfolk Associations in organisational capacity and collection of fisheries dependent data e.g. CPUE and in basic fisheries management theory and techniques is initiated in concert with IEC programme (Y1Q3 to Y4Q1).</p>		<p>Capacity training was delivered 18th-21th November 2015 - members from six of our eight key sites were able to attend; the other two were unable due to the fishing season, but were briefed by ZSL staff afterwards. Resources for the training and education programme are presently being developed and activities will be initiated before the end of Y3Q1.</p>
<p><b>Activity 3.5.</b> VSLA training is carried out in key locations and, through self-selection within the FFAs and associated communities are developed with facilitation, and established (Y2Q4 to Y3Q4).</p>		<p>Three FFAs have self-selected to establish COMSCAs (the Filipino term for VSLAs) which ZSL staff are now facilitating through initial training and on-going engagement (see Annex 11).</p>
<p><b>Activity 3.6.</b> Data collection and analysis from VSLAs (Y3Q1 to Y3Q4).</p>		<p>Data on saving and loans per member of the COMSCAs is submitted to ZSL quarterly and as such we will receive the first report in Y3Q1 (see Annex 12).</p>
<p><b>Activity 3.7.</b> Fisheries dependent data collection is initiated and submitted to BFAR (Y1Q4 to Y4Q1).</p>		<p>We expect data gathering to commence in Y3Q1 via the key FFAs once training has been delivered, but the depressed state of the eel fishery may mean data specific to these species is lacking. We will be highlighting the importance of this data collection for all exploited species.</p>
<p><b>Activity 3.8.</b> Fisheries dependant and independent data are used to optimise fishery and inform annual management actions to ensure sustainability.</p>		<p>Data from Activities 2.3 and 3.7 will be used to ensure that objectives of the EMP are achieved once it has been implemented.</p>

<p><b>Output 4</b> Aquatic survey methods are established to monitor the freshwater biodiversity in the Cagayan River Basin and key threats are mitigated against.</p>	<p><b>Indicator 1.</b> Baseline biodiversity assessment of the Cagayan River has been carried out by the end of year 1 and integrated into Department of Environment and Natural Resources river management plan by the middle of year 2.</p> <p><b>Indicator 2.</b> Threat assessment is carried out to prioritise mitigation activities by the middle of year 2.</p> <p><b>Indicator 3.</b> Threat mitigation actions are developed and implemented in collaboration with stakeholders responsible for potentially damaging activities by the end of year 3.</p> <p><b>Indicator 4.</b> A suite of biodiversity indicators is developed and regular monitoring at key sites on the Cagayan River is initiated by the end of year 2.</p>	<p>Habitat surveys carried out in key sites around the Cagayan River Basin in collaboration with BMB, BFAR and LGUs. The report is presently being written and will be completed in the next six weeks.</p> <p>This was carried out at key sites as part of the habitat survey.</p> <p>Twelve key sites identified for establishment as Freshwater Sanctuaries – will be protected from damaging activities and monitored by community volunteers/river wardens.</p> <p>In collaboration with BMB, a suite of monitoring for eels, and other freshwater flora and fauna are presently being developed. IEC and training will be delivered in Y3 and monitoring reports from sanctuaries will evidence progress.</p>
<p><b>Activity 4.1.</b> Baseline biodiversity, habitat and threat surveys of the Cagayan River are carried out and reports produced.</p>		<p>The habitat survey was carried out in Y2 and we expect the report to be finalised in the next six weeks.</p>
<p><b>Activity 4.2.</b> Meetings with key stakeholders relating to potentially damaging activities are held, and mitigation activities are proposed in light of reports produced in 4.1.</p>		<p>Twelve key sites have been identified and in collaboration with the associated communities, we aim to use these as case studies for threat mitigation in the region. Through on-going engagement at the local, regional and national level, we will be able to highlight the threats freshwater systems face and how they can be reduced and/or managed.</p>
<p><b>Activity 4.3.</b> Mitigation measures are developed and implemented in key sites along the Cagayan River.</p>		<p>Freshwater Sanctuaries have begun to be established at the key sites; six have been identified as poor quality and six good quality to allow comparison (see Annex 13). An IEC programme will also be implemented to highlight the importance of freshwater systems and how the threats can impact them and those that rely on them. River wardens will be deputised as part of this engagement.</p>
<p><b>Activity 4.4.</b> Monitoring of biodiversity indicators on the Cagayan River is initiated.</p>		<p>Communities will be trained in baseline biodiversity and fisheries independent monitoring during Y3Q1 and Y3Q2, and we are facilitating communications between BFAR and BMB, and focal communities/LGUs to ensure the data is submitted and utilised by the appropriate government agency.</p>
<p><b>Output 5</b> Successful pilot farming project and long-term feasibility study for eel</p>	<p><b>Indicator 1.</b> Pilot farming project at BFAR facilities is initiated by the end of year 1</p>	<p>Eel farming feasibility study was on-going in Y2.</p>

farming is complete.	<p><b>Indicator 2.</b> Communities and other stakeholders are engaged, through site visits, throughout years 1 and 2.</p> <p><b>Indicator 3.</b> Feasibility study of the pilot project is completed by the end of Q2 year 3.</p>	<p>We have carried out a number of courtesy visits to eel farms in the Philippines and engage with the national trader's organisation (IGAT) regularly. This has highlighted that many of the commercial enterprises are experiencing similar problems.</p> <p>The farm study is being finalised and the report drafted.</p>
<b>Activity 5.1.</b> Seed stock for farming at BFAR facilities are collected in collaboration with selected fisher communities.		After extended discussion, it was agreed that this element of work would be brought to an early close, and as such this activity has been halted.
<b>Activity 5.2.</b> Farming conditions e.g. water quality / feed regimes are optimised and methodologies are produced.		The farming project experienced high mortality due to issues beyond our control, such-as high temperatures and poor groundwater quality on-site. As such, our ability to optimise growth conditions have been limited and those that did survive were not showing good growth rates. We have engaged eel farms that have proliferated in the Philippines during the last two years to compare methods and many of them have had similar issues. In addition to this, the abundance of the species that has the highest market value has declined in the region over the past three years. As such, we concluded that community-based farming would not be feasible or cost-effective.
<b>Activity 5.3.</b> Feasibility study – including recommendations – is produced.		The data is presently being consolidated and analysed, and report writing will commence once this has been completed.

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Goal/Impact</b>			
To promote conservation and sustainable management of freshwater biodiversity in the Philippines to meet CBD targets and support equitable community-level fisheries free from over-exploitation and involvement in illegal international trade.			
<b>Purpose/Outcome</b> Conservation of eels measurably improves freshwater biodiversity in the Cagayan River as a result of ecologically sustainable, community-led management and exploitation, and equitable national and international trade.	<p><b>Indicator 1.</b> Local and national legislation is effective in managing the supply chain of eels, and local enforcement capacity is increased resulting in a reduction of illegal trade by 25% by the end of Q1 year 4.</p> <p><b>Indicator 2.</b> Eel fisheries are</p>	<p><b>Indicator 1.</b> Trade analysis report – included proposed changes to legislation; Updated local and national legislation; Customs import and export data; Seizure reports; Increased number of trained / trainer enforcement staff; Enforcement reports; Stakeholder meeting minutes;</p> <p><b>Indicator 2.</b> Eel management plan;</p>	<p>Riverine exploitation projects e.g. mining are not developed further.</p> <p>Currency rates/rate of inflation does not fluctuate to levels that compromise delivery of the project.</p> <p>Prices of eels in black market does not increase to such a high level that illegal fisheries proliferate and enforcement becomes impossible.</p>

	<p>sustainably managed and equitable, as a result of the establishment and implementation of fisheries management plans by the end of Q1 year 4.</p> <p><b>Indicator 3.</b> Four FFAs are established resulting in improved local stakeholder capacity, and government staff capacity is increased through training ensuring the eel fishery management plan is effective by the end of year 3.</p> <p><b>Indicator 4 .</b>Key threats to the freshwater environment are identified and mitigation plans in place resulting in a 5% improvement in abiotic indicators of freshwater biodiversity by the end of year 3.</p> <p><b>Indicator 5.</b> The pilot farming project is managed by ZSL and government staff resulting in the development of a feasibility study report by Q2 the end of year 3.</p>	<p>Training manuals; Stakeholder meeting minutes; fisheries-independent data sets</p> <p><b>Indicator 3.</b> Socioeconomic survey reports; POs terms of reference; Legal ratification and registration of active, effective POs; POs meeting minutes; Training materials; Fisheries datasets;</p> <p><b>Indicator 4.</b> Biodiversity and threat survey reports; Habitat mitigation plan; Abiotic indicator analysis dataset; Stakeholder meeting minutes;</p> <p><b>Indicator 5.</b> Farming ponds in existence; Farming training materials; Farming records; Feasibility study report – including business plan.</p>	<p>Eel fishery does not collapse.</p> <p>Management plan is accepted by fisher communities.</p> <p>Supply-chain actors buy in to the long-term development of sustainable fisheries management.</p> <p>Pilot farming project is successful.</p> <p>Natural disaster does not affect project sites.</p>
<p><b>Output 1</b> Local and national legislation and policy is amended to ensure any international trade is sustainable and CITES commitments are being met.</p>	<p><b>Indicator 1.</b> Trade analysis carried out to inform development of management plan and policy and legislation development by end of year 1.</p> <p><b>Indicator 2.</b> Enforcement capacity is increased to ensure sustainable management through training of government and communities (including appointment of local river wardens) through years 2 and 3.</p> <p><b>Indicator 3.</b> New, scientifically-informed, legislation developed through a consultative process is implemented at the local, regional and national level by the end of year 3.</p>	<p>Trade analysis report; export/import logs; Stakeholder meeting minutes; policy advice documents; policy documents; enforcement records</p>	<p>All key stakeholders are willing to engage in the fora for development of management plans and policy development, and associated training courses.</p> <p>There will be no resistance to proposals in changes in legislation locally, regionally and nationally.</p> <p>Changes in government at next election do not impact on the government partners and project objectives.</p> <p>Newly developed enforcement measures are effective.</p>



	<b>Indicator 4.</b> Illegal exports are reduced by the end of year 3.		Fishers are willing to amend practices in line with management plan recommendations.
<b>Output 2</b> Sustainable eel management plan for the Cagayan River Basin integrated from the community to the national level	<p><b>Indicator 1.</b> Eel management plan is developed with stakeholder engagement by middle of year 2.</p> <p><b>Indicator 2.</b> Collection of fisheries-independent data on eel species in the Cagayan is initiated by the end of year 1.</p> <p><b>Indicator 3.</b> Eel population and fisheries data indicate that new management practices are ensuring stocks of the multiple anguillid species in the catchment are not impacted to their detriment by the end of year 3.</p>	Eel management plan; fisheries-independent data sets; Training manuals; Stakeholder meeting minutes	
<b>Output 3</b> Existing Fisherfolk Associations (FFAs) are trained to manage eel fisheries, collect fisheries dependent data at the community level, and attain financial stability through VSLAs.	<p><b>Indicator 1.</b> Needs and socio-economic assessments identify key capacity issues to be addressed by FFAs and number of beneficiaries identified and disaggregated by household and gender by the end of Q3 year 2.</p> <p><b>Indicator 2.</b> Candidate FFAs are identified and the process of establishment is initiated by the end of year 1.</p> <p><b>Indicator 3.</b> Training courses are held to teach FFAs and other associated stakeholders about data collection, enforcement and fisheries management during years 2 and 3.</p> <p><b>Indicator 4.</b> VSLAs are established in three key locations (with a maximum of 25 persons per group) to include members from candidate FFAs and associated communities during year 3</p>	Socio-economic assessments reports; Training course records and materials; fisheries-dependent data sets; POs terms of reference;	

	<p>– these will be self-reliant by Q1 Y4.</p> <p><b>Indicator 5.</b> Using baseline data collected from the socio-economic survey, disaggregated by household and gender, VSLAs are monitored during Y3 to ensure savings and loan use increases and members have greater financial stability by end of Q1 year 4.</p> <p><b>Indicator 6.</b> Collection of fisheries-dependent and national trade data on the anguillid species of the Cagayan River is initiated and delivered to BFAR in-line with management plan recommendations by the end of Q4 year 2.</p>		<p>Key stakeholders relating to potentially damaging activities on the Cagayan River engage with project staff to discuss mitigation and CSR.</p>
<p><b>Output 4</b> Aquatic survey methods are established to monitor the freshwater biodiversity in the Cagayan River Basin and key threats are mitigated against.</p>	<p><b>Indicator 1.</b> Baseline biodiversity assessment of the Cagayan River has been carried out by the end of year 1 and integrated into Department of Environment and Natural Resources river management plan by the middle of year 2.</p> <p><b>Indicator 2.</b> Threat assessment is carried out to prioritise mitigation activities by the middle of year 2.</p> <p><b>Indicator 3.</b> Threat mitigation actions are developed and implemented in collaboration with stakeholders responsible for potentially damaging activities by the end of year 3.</p> <p><b>Indicator 4.</b> A suite of biodiversity indicators is developed and regular monitoring at key sites on the Cagayan River is initiated by the end of year 2.</p>	<p>Biodiversity and threat assessment report; Habitat mitigation plan; Stakeholder meeting minutes; monitoring reports and datasets.</p>	