



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31st October 2018)

Project reference	24-014
Project title	Carrots and sticks: incentives to conserve hilsa fish in Myanmar
Country(ies)/territory(ies)	Country 1: Republic of the Union of Myanmar (also known as Burma); Country 2: Bangladesh (collaborating country)
Lead organisation	International Institute for Environment and Development (IIED)
Partner(s)	Department of Fisheries; WorldFish; Network Activities Group (NAG); and Yangon University Zoology Department
Project leader	Dr Essam Yassin Mohammed
Report date and number (e.g., HYR3)	April 2018 – September 2018; HYR2
Project website/blog/social media etc.	https://www.iied.org/carrots-sticks-incentives-conserve-hilsa-fish-myanmar

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

1. Enhanced understanding of the biology and ecology of hilsa fishery

-Activity 1.1-1.4

Work is ongoing for the yearlong Gonadosomatic index (GSI) study, which started in November 2017. In April-September 2018, information on more than 400 samples of hilsa gonads (length and weight) was collected in the sample sites (see map below). The aim is to show whether the fish migrate upstream to spawn once or twice a year, and if twice in which areas. This will have a bearing on possibly extending the fishing closed season to cover the apparent second spawning peak in November-December. The preliminary results of the study will be available in February 2019.

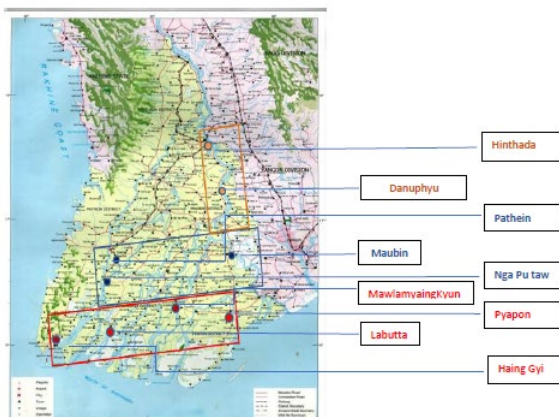


Figure 1. Map of sampling sites

Mapping of barrages, tides, flood control and others has been carried out to get a better understanding of the interference to some of the longitudinal (north-south) migration routes.

Most of the barrages are placed by the Ministry of Agriculture Livestock and Irrigation (MoALI) Irrigation and Water Utilization Management Department (IWUMD) to ensure there is freshwater for rice irrigation without consulting fishers or carrying out Environmental Impact Assessments to assess the negative impacts of such barriers on fish spawning routes.

2. Enhanced understanding of the complex socioeconomics of hilsa fishery in the Ayeyarwady Delta

-Activity 2.1 & 2.3 Socioeconomic assessment of hilsa fishing communities in Ayeyarwady Delta and estimation of short-term economic cost (opportunity cost)

This report was finalised in September 2018 by NAG and it will turn into a discussion paper in collaboration with the IIED team, to be published in January 2019 (preliminary results available upon request).

-Activity 2.2 and 3.1 Assessment of preferences using the choice experiment method and monetary estimation of non-use value of hilsa fishery

The report on assessment of preferences and economic valuation of non-use value of hilsa fishery is due by Y3 of the project but is already underway and progressing with the initial design of the CE survey, by IIED in collaboration with NAG.

3. Divergency in views

Fishers are aware that Hilsa abundance is reducing in the region, and conservation measures need to be considered. That said DoF statistics tell a different story with increasing catches – this may be a product of increasing fishing pressure. This needs to be checked with the '**FAO TCP TCP/MYA/3601 - Improvement of data collection of fisheries and aquaculture production: pilot system for the Yangon Region**' project.

On the other hand, fisherfolk in Burma are also aware of the opportunity cost they bear during closed fishing season(s). There is a gap between how much people are willing to give up before knowing the benefit of conservation and the actual income they currently getting from the Hilsa fishery. To bridge that gap, not only the Hilsa fisherfolk but also the Hilsa industry need to know the worth of conservation, which can be achieved after a certain (unknown) time. Thus, the economic valuation of the Hilsa sector will inform decision-makers about it's possible future. Moreover, stakeholders, the government and even people outside the sector need to be aware of the value the sector brings to the country and how well conservation will provide national benefits in the future.

4. Transboundary Hilsa Fishery management: Bangladesh – Burma dialogues

As it has been communicated to the Darwin Initiative in the Y1 report, a formal Bangladesh – Burma dialogue is currently not possible due to the political environment in the region. Therefore, the creation of a knowledge exchange platform that includes participants of both countries was suggested. A good opportunity to encourage Bangladesh – Burma collaboration was provided by the visit of the Fisheries Research Vessel Fridtjof Nansen, which has been in Burmese waters carrying out fisheries assessments from 20th August to 29th September 2018. The crew included a Bangladeshi and a Burmese participant, Mr. Thaung Htut was on board from Burma and Mr. Rizwan Ali from Bangladesh. The results of this survey will be available mid-2019.



5. Publications

A paper called “Productivity and coastal fisheries biomass yields of the northeast coastal waters of the Bay of Bengal Large Marine Ecosystem” by Michael Akester (WorldFish) has been accepted for publication in August 2018 in Deep Sea Research Part II: Topical Studies in Oceanography. Link: <https://doi.org/10.1016/j.dsr2.2018.08.001> It specifically refers to the Darwin Initiative and this project as the results may help with the establishment of a transboundary hilsa fishery management system in the Bay of Bengal (output 5 of the project).

6. Conferences attended

The project team presented preliminary results of the project at the 3rd World Small-Scale Fisheries Congress in Chiang Mai, Thailand, on 22nd-26th October 2018. The congress theme was ‘Transdisciplinarity and Transformation for the Future of Small-Scale Fisheries’. The title of the team’s presentation was ‘Carrot and Sticks: Incentives to Conserve Hilsa (*Tenualosa illisha*) in Burma’ and details about the project and its first-year progress were presented. Darwin funding support was highlighted.

7. Monitoring and Evaluation – project team meeting in Yangon, Burma

A team from IIED (Essam Y. Mohammed, Geraldine Galvaing, Ahmed S. Khan and Eugenia Merayo) visited Yangon, Burma, on the 30th-31st July 2018 and had a meeting with in-country partners; WorldFish, Yangon University and NAG. The purpose of the meeting was to assess the project progress, evaluating the first year of the project and then making sure that in Y2 the difficulties encounter in Y1 are no longer an issue. The project team as a whole had the opportunity to go through the project activities and timelines and an updated log frame was agreed. A new team meeting to monitor and evaluate the project progress has been scheduled for Feb/March 2019 (dates tbc).



During the IIED visit to Burma in late July 2018, the project leader had the opportunity to provide NAG with the basis of economic valuation methods, which allows NAG to have a clearer understanding of the principles behind economic value and methods. It will help towards output 3 of the project and contributes to capacity building of in-country partners.

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

There are no notable problems or unexpected developments.

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

Discussed with LTS: Yes/No

Formal change request submitted: Yes/No

Received confirmation of change acceptance Yes/No

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

Yes No Estimated underspend: £

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

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

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

N/A

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document. Additionally, if you were funded under R24 and asked to provide further information by your first half year report, please attach your response as a separate document.

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

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