



**BIODIVERSITY
CHALLENGE FUNDS**



Biodiversity Challenge Funds Projects **Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus**

Half Year Report

It is expected that this report will be a **maximum of 2-3 pages** in length.

If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2024

Please note all projects that were active before 1 October 2024 are required to complete a Half Year Report.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

Project reference	30-025
Project title	Developing sustainable near-shore sea cucumber aquaculture on Selayar Island, Indonesia
Country(ies)/territory(ies)	Indonesia
Lead Organisation	Centre For Sustainable Energy & Resources Management @ Universitas Nasional, Indonesia (CSERM-UNAS)
Partner(s)	Heriot-Watt University, UK (HWU)
Project leader	<i>Dr. Jito Sugardjito</i>
Report date and number (e.g. HYR1)	<i>HYR2 - April-September 2024</i>
Project website/blog/social media	https://cserm.unas.ac.id/

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

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your M&E systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

As of the second half-year of implementation, our project is proceeding according to plan and has produced all the outputs specified in the initial schedule. Adjustments have been made in response to field conditions. The following lists the specific results and related activities:

Output 2: Local Women from PKK (Family Welfare Empowerment Associations) trained in sea cucumber ranching at 3 project sites

2.2 Weekly workshops to engage local women in the process and provide basic training regarding monitoring, maintenance and harvesting practices

Weekly workshops have been running since May until October where the final materials will be delivered, with average participation as of September of 83.25% from a total of 106 participants (88.33% of the target). Workshop materials provide knowledge and operational procedure for sea pens, as well as sea cucumber monitoring and maintenance, and the biological aspects of

sea cucumbers, assisting participants to understand their behaviour and develop best practices to grow and harvest them. Assessment on the capability and knowledge of the participants will take place in October, during the final workshops.

2.3 Modify and refine pilot project operations to maximize productivity, produce SOP manual for local women

Expanded sea cucumber pens have been constructed according to designs developed through community consultations in January 2024. Between June-August operational developments have focused on regimented cleaning and predator removal (particularly crabs). Following observations of larger sea cucumbers with scars/damage from crab attacks (approx. 1% of cultured stock), monitoring and predator removal have been enhanced and now appear to have significantly reduced damage to stock. Security posts established across each of 3 locations are expected to be completed in October. Several sea pens on the east coast of Selayar have halted stocking due to the East monsoon and will continue in October when the East monsoon ends. Sea pens on the west coast of Selayar are stocked with sea cucumbers and the operations will adjust carefully when the west monsoon approaches. An SOP manual was distributed to every member during the first workshops and implemented right away, and the waterproof SOP was placed in the security posts.

2.4 Harvest, process and sell-back cultured stock (estimated)

A partial harvest of initial stock took place in October, in line with submitted changes in CR5_30-025, with 53 of the largest sea cucumbers harvested, intended primarily to serve as base materials for processing/preparation training program.

2.5 Participant feedback and focus groups (Women only)

Weekly discussions with participating women conducted across 4 locations (1 per month per village), supported by an active WhatsApp group chat to discuss specific concerns in real time with the field team. The members are grouped into small groups of 4 people who have monitoring books, they record monitoring and maintenance activities. These books were routinely checked and discussed with the field team and became sources for input and/or feedback on the implementation of the program. In particular, membership duties of participation in production cooperatives have been a key topic, with 5 individuals electing to suspend their membership duties temporarily in anticipation of production results. Of the suspended members, other participants actively cooperated to find replacement members to ensure that group activities continued to run smoothly.

Output 3: Expand aquaculture operations with profit from first harvest

3.1 Elect coordinator for aquaculture cooperative

Cooperatives have been established with full coordination and administrative roles identified, currently awaiting formal registration by Notaris Pembuat Akta Koperasi (Cooperative Establishment Deed Notary). The cooperative covers all locations and consists of administrators representing all locations. From each location there is also a female coordinator who manages maintenance and monitoring responsibilities.

3.2 Construct/expand new aquaculture sites

Sea pen expansion continues on schedule, with 3 remaining sea pens to be constructed as of September 2024. Materials and construction timetable in place. Total aquaculture operations now cover 3 hectares, with a total of 56 individual pens managed by cooperative sub-groups.

3.3 Establish SOP for monitoring, maintenance

SOP has been established, agreed upon and distributed to local village operations for reference by cooperative sub-groupings. Based on the SOP, female participants make an agreement on the sea pen monitoring and maintenance schedule (generally at least once every two weeks) and are involved in monitoring the growth of sea cucumbers. Security guards also actively supervise the sea pens, help collect sea cucumbers during growth monitoring, and repair the sea pen.

3.4 Monitor and maintain aquaculture sites, ongoing harvest and restock

Restocking of aquaculture sites along the Western coastline was conducted between May-June in Iowa, between June-September in Bontobangun. As many as 70% of sea pens have been stocked with sea cucumbers, with restocking adjustments in several locations, especially the East coast, due to seasonal conditions. Restocking plans impacted by the Eastern Monsoon are expected to be complete in October 2024. Hatchery established in partnership with Regional Planning and Development Agency & Fisheries Agency to provide reliable juvenile stock to supplement wild-collected sea cucumbers and limit impact on remaining wild populations. As of the end of September, the productive output has recorded 4000 juveniles, with a nursery for pre-pen growth during monsoon seasons in development. These are expected to be distributed in November 2024.

3.5 Weekly field officer site visits

Field visits are integrated within weekly monitoring, stock checking and community engagement. Based on these weekly visits, obstacles such as the decreasing survival rate of sea cucumbers and their relation to sea cucumber stocking operations were identified, efforts to facilitate communication between groups at each location were increased, enhanced security guard coordination, and administrative preparations for establishing a sea cucumber farmer cooperative.

2. 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.

Hesitation from some participants to commit financially to the administrative requirements of the cooperative framework before large-scale processing and sale of sea cucumbers limited initial cooperative membership. Participants from each village will be established in representative roles, with membership expanded over time. Cooperative structure is flexible enough to support new members' entrance at any time, with an agreement between local buyer, cooperative administration and fisheries agency (as the supplier of supplemental juvenile stock) to ensure island-wide coordination of sea cucumber industry and access to hatchery stock as an incentive for membership.

Variable sizes of first-round sea cucumber stock have resulted in an early production crop of approximately 53 market-weight sea cucumbers. These will be used as raw materials for an expedited preparation and processing training program, in anticipation of a larger harvest in Q3Y2. This change to proposed activities has been identified and granted in CR5-30-025.

The impact of seasonal weather fluctuations on growth rates of cultured sea cucumber stock has been more significant than initially estimated, resulting in delayed/variable growth rates at certain times of year. The production SOP, including restocking, harvesting, and sea pen design will be modified to mitigate the impact of these seasonal changes and ensure a stable production system in place during Y2Q3-Q4.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	Yes
Formal Change Request submitted:	Yes
Received confirmation of change acceptance:	Yes
Change Request reference if known: 1) CR4-30-025: Sea cucumber hatchery 2) CR5-30-025: Sea cucumber training program	

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2024 – 30 September 2024) Actual spend:
4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2025)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
4c. If you expect and underspend, then you should 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 re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes to your project if necessary. Please DO NOT send these in the same email as your report. NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.
5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?
N/A

6. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent annual report. If your project was subject to an Overseas Security and Justice Assistance assessment please use this space to comment on any changes to international human rights risks, and to address any additional mitigations outlined in your offer letters. Please provide the comment and then your response. If you have already provided a response, please confirm when.
We will continue to strive to achieve the outputs/outcomes as outlined in the original program plan, and we also appreciate the support for agreed-upon adjustments that were required. We will attach the raw data of ecological and socioeconomic surveys and monitoring along with the second-year update in the second annual report.

Checklist for submission

For New Projects (i.e. starting after 1st April 2024)	
Have you responded to any additional feedback (other than caveats) received in the letter you received to say your application was successful which requested response at HYR (including safeguarding points)? You should respond in section 6, annexes other requested materials as appropriate.	
If not already submitted, have you attached your risk register ?	
For Existing Projects (i.e. started before 1st April 2024)	
Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, annexes other requested materials as appropriate.	Yes
For All Projects	
Include your project reference in the subject line of submission email.	Yes

Submit to BCFs-Report@niras.com .	Yes
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	Yes
Have you reported against the most up to date information for your project ?	Yes
Please ensure claim forms and other communications for your project are not included with this report.	Yes