

Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

Note: 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 2023

Project reference	28-021
Project title	Improving coastal resilience and ecosystem services through biodiversity restoration (Philippines)
Country(ies)/territory(ies)	Philippines
Lead partner	International Institute of Rural Reconstruction (IIRR)
Partner(s)	Zoological Society of London (ZSL)
Project leader	Julian Gonsalves, Ph.D.
Report date and number (e.g. HYR1)	April 1-September 30, 2023, HYR3
Project website/blog/social media	https://www.facebook.com/iirrasia/

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

Progress towards Outcomes

The project has made great strides in increasing awareness and active participation on mangrove conservation within the municipality, as evidenced by continued support for project activities from the coastal communities, as well as joint activities with the local government. Coastal agrobiodiversity has been expanded, both in reach and types, helping ensure improved food security, nutrition, and climate change adaptation for households in coastal areas. Youth and women are also being prioritized for engagement to ensure social equity.

Activities towards Outputs

Output 1: Total of 330 hectares of coastal areas with sparse mangrove cover rehabilitated, protected, and sustainably managed through community-led initiatives

The project has completed mangrove outplanting in 10.6 ha in 7 barangays, this includes the originally identified 7.9 ha for reforestation, plus an additional 2.6 ha of enrichment planting. Beach forest nurseries have also been set up in 4 barangays, with a total of ~1,500 seedlings from four species bagged. Monitoring quadrats have also been put up in all the barangays.

A total of 29.2 ha of abandoned fishponds (as confirmed by the Bureau of Fisheries and Aquatic Resources (BFAR)) in 2 project barangays are in various stages of regeneration, contributing to the restoration of mangrove cover and associated ecosystems. Communities in other barangays are also reporting increased mangrove cover because of natural regeneration.

For the law enforcement component of the project, a monitoring and patrolling planning workshop for Bantay Dagat (Fish Wardens) and Deputized Environment and Natural Resource

Officers (DENRO i.e., forest wardens) was conducted last September 20, 2023. Patrolling equipment has already been distributed (radios, flashlights, life vests) to the teams, and the patrolling plan is expected to be fully operationalized starting 3rd quarter of 2023. Partnership with the Philippine National Police (PNP) has also been established, with their role in law enforcement operations in coordination with the wardens defined. The project has also partnered with the EarthRanger team of the Allen Institute of Artificial Intelligence to implement a Geographic Information System (GIS)-based software solution as part of the coastal resource monitoring and patrolling plan.

The municipal ordinance on the mangrove local conservation area (LCA) has been approved. Currently, the focus is on finalizing the LCA management plan to operationalize the ordinance, and the plan is under review by the Sangguniang Bayan (Municipal Council) (SB) for adoption.

To further strengthen institutions taking up the cause of conservation and sustainable resource management, the Municipal Fisheries and Aquatic Resources Management Council (MFARMC) has also been reorganized with the assistance of the Municipal Agriculture Office (MAO). New officers have been elected and are currently being engaged.

In an ongoing attempt to strengthen frontline groups, a community organizer has been hired to improve people's organizations' (POs) capabilities and ensure their sustainability even after the project ends. Organizational assessment meetings have been conducted, and additional organizational development activities are being planned based on the findings generated from these meetings.

Dr. Jurgene Primavera has compiled the initial results of her study on beach forest species, identifying 6 "super spreader" species (characterized by early reproduction and low seeding requirements) that the project will prioritize for its reforestation initiatives.

Output 2. 700 hectares of coastal agroecosystems in 14 villages in Guinayangan are utilized for regenerative agriculture including promotion of agro-biodiversity.

Ten of the 14 project barangays were considered useful targets for agro-biodiversity enrichment (fruit trees and shrubs), while the remaining 4 peri-urban barangays (with their limited land area and tenurial issues) were targeted through home/vertical gardens and small livestock interventions.

A major accomplishment in this reporting period has the enrichment of climate-hardy, resilient, nutrient-dense indigenous vegetable biodiversity (both inter- and intra-species diversity) in coastal home gardens. 97 households in ten barangays received diversity kits (containing over 40 different species/cultivars). Initial reviews indicate that community-level, spontaneous exchange of germplasm is already taking place.

Livestock biodiversity has received attention with the reintroduction of native chicken breeds that the Philippines used to be known for (*Paraokan*, *Daraga* and *Banaba* breeds). This science-informed strategy is targeting 3 specific barangays which could be future suppliers of these vanishing breeds of chickens. In addition, 80 households in the 12 barangays have also received just one breed of *Banaba* for upgrading the local native stock (characterized by non-descript populations that have been genetically degraded due to inbreeding). This effort complements well the other efforts to introduce Muscovy and Mallard duck breeds to 114 households in 10 barangays, mostly women.

The previously distributed native pig breeds (research station-sourced) have now grown to 40 beneficiaries, in 8 barangays. These native breeds are serving as effective low carbon footprint approach to raising livestock for additional income, high protein food, and enhancing local food systems in a culturally appropriate and inclusive manner, while fostering spontaneous community managed dissemination. Despite the incidence of swine flu in the country, these breeds are demonstrating to be resilient and hardy to diseases and climate change. With

support of the local government unit (LGU), the project's focus will now shift to animal husbandry and (low-cost) feed management.

As of the reporting period, 188 households in 10 barangays are reporting at least 70 percent survival of the 3,537 fruit trees distributed (four species known to be especially suitable to coastal agriculture: santol, calamansi, jackfruit and cashew). The focus for the rest of the year will shift to additional lessons in regenerative agriculture methods (in the context of El Nino).

Banana has proven to be a major income generating opportunity for coastal households. A total of 152 households in 9 barangays have received over 1,600 suckers of *latundan*, a valued dessert banana in the Philippines. These households also serve as local gene banks for this variety. In four of these barangays, ten individuals act as custodians of banana diversity, each with ten varieties including those from the Philippines national gene banks. Six additional banana field gene banks will be set up in the next couple of months so each of the ten barangays will have ten local banana varieties. Over the next few years these assets will support food security, nutrition and household level food processing.

During the project, staff have partnered with beneficiaries in coastal areas who have received prior interventions from IIRR, and are by default conservationists with an already rich diversity of trees, shrubs, vines, and small livestock in their backyard. These 65 individuals (mostly women) in 12 barangays have been designated as biodiversity custodians. The individuals will be encouraged to develop plant nurseries to further promote climate hardy species currently found in coastal belts.

Output 3. Around 1,000 poorest households in 14 coastal villages with improved livelihood security and resilience resulting from regenerative agriculture and sustainable use of resources found in the designated multiple-use mangrove forests.

A quarter of the 110 households with ducks are already starting to sell eggs (raw or processed) thus demonstrating ways to augment local food systems and empower women economically. Two additional youth groups aside from those reported in Output 2 are now serving as production facilities for eggs and meat. These two group-based enterprises are co-funded by a London Stock Exchange Group (LSEG) project being implemented by IIRR. Incubators have also been provided to each of these two barangays to allow faster hatching of eggs and ensure sustainability of the enterprise. Currently, they are selling native chicken eggs in the community and will later be selling live native chicken and chicks

A total of 70 households are currently involved in enterprise development. These households are engaged in the production of buli woven products, coconut by-products, nipa vinegar, and sweetened banana and jackfruit in jar. The previously established coco by-products initiative led by LGU has pilot tested the production of coco peat, coco fiber and coco chunks (all with applications for commercial gardening). The community in Himbubulo Este will receive support from IIRR in market link establishment and training. In addition, a new initiative between IIRR and the LGU is a biochar project. IIRR is supporting the establishment of ten barangay-based biochar drums. This production effort is in the pilot stage with the market links currently being finalized.

These groups participated in the Guinayangan Agri-fair during the town fiesta in June. All their products were market tested locally during this event. Total sales showed that coco peat, commonly used as used as a plant medium and soil fertility enhancers, had the most market potential. Nipa vinegar also came out as a favorite in the consumable products. Buli woven products were also popular, and the group now accepts orders for the different woven products especially now that these bags and baskets are being patronized by the local government as their packaging for tokens and giveaways to visitors and guests.

An intern from the University of the Philippines- Department of Agribusiness Management and Entrepreneurship assisted the project in finalizing the business plan of the youth group and a market/feasibility study for the coco by products and the buli woven products.

A project staff attended a regional oyster conference hosted by the University of the Philippines Marine Science Institute as part of improving technical capabilities for the oyster enterprise. BFAR Region 4A also conducted an ocular inspection last September to check on the status of the oyster floating rafts already deployed in 2 project and 1 non-project barangays. The project provided a counterpart for the oyster enterprise by sponsoring trainings for fishers in 3 barangays. Participatory Action Research (PAR) is currently being conducted with 169 households that are part of the oyster production in these barangays.

As of September 2023, a total of 11 beneficiaries have been provided stingless bee hives by the project. The Cavite State University's bee program has been continuously providing technical guidance both to project staff and the beneficiaries.

Outcome 4. Knowledge and good practices derived from the project are shared widely to the public as well as to various agencies of the government within Guinayangan and in the province to mobilize policy, funding, and public support.

IIRR signed a MOA with Guinayangan Academy and an MOU with Guinayangan Elementary School last semester. These documents affirmed the continued commitment of these institutions to the project's environmental education campaigns for elementary and high school students.

Multiple mangrove planting/IEC activities have been conducted, a number of which have been initiated by the Municipal Environment and Natural Resources Office (MENRO). These activities also included mangrove seedling maintenance by the youth, where they picked up trash from the reforestation areas and removed epiphytes on the mangrove seedlings.

To raise awareness on solid waste management and as part of the International Coastal Cleanup Day celebration on September 16, 2023, concurrent cleanup activities were conducted in all 14 project barangays in cooperation with the MENRO and the various fisher folk POs.

Two posters generated by the project were presented during the 17th Philippine Association of Marine Science Symposium last July 2023. The first poster presented the results of the mangrove community structure surveys spearheaded by ZSL, while the second presented the effects of COVID-19 on gleaning practices in the municipality.

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.

None.

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/No

Formal Change Request submitted: Yes/No

Received confirmation of change acceptance Yes/No

Change request reference if known:

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2023 – 30 September 2023)

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 2024)?

Yes No Estimated underspend: £

4c. 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.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

Addressing the Y2 Annual Report review on the project's progress on safeguarding, all project staff participated in a seminar conducted by the US office of IIRR last September 20, 2023 on the organization's safeguarding policies. Rico Locaba, Project Field Team/Quezon Learning Community Manager, has been designated as the safeguarding focal person for the project. This seminar reviewed the organization's safeguarding mechanisms and reiterated that the policy not only covers children, but other vulnerable members of the community as well. For reporting of youth/children participation in activities, their numbers are routinely disaggregated in attendance reports, and their roles during these activities well-defined.