Darwin Initiative Main & Extra Annual Report

To be completed with reference to the "Project Reporting Information Note": (https://www.darwininitiative.org.uk/resources/information-notes/)

It is expected that this report will be a maximum of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2025

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Darwin Initiative Project Information

Scheme (Main or Extra)	Main
Project reference	DIR29S2\1056
Project title	Securing Spermonde's seascape through community-based coral reef fisheries management
Country/ies	Indonesia
Lead Organisation	Fauna & Flora International (FFI)
Project partner(s)	Maros Pangkep Geopark Management Body (BP Geopark Maros Pangkep), Indonesia
	BBKSDA (Balai Besar Konservasi Sumber Daya Alam) / Regional Natural Resources Conservation Agency of South Sulawesi, Indonesia
	National Marine Protected Areas Agency (Balai Kawasan Konservasi Perairan Nasional-BKKPN), Kupang, Indonesia
Darwin Initiative grant value	£455,722.00
Start/end dates of project	01 April 2023 – 31 March 2026
Reporting period (e.g. Apr 2024 – Mar 2025) and number (e.g. Annual Report 1, 2, 3)	1 Apr 2024 – 31 Mar 2025, Annual Report 2 (AR2)
Project Leader name	Subhan Usman
Project website/blog/social media	-
Report author(s) and date	Subhan Usman, Darwan Saputra, Ratih Rimayanti, Muhammad Nursan, Muhammad Chaidir, Alfian, Donny Gunaryadi, 19 April 2025

1. Project summary

The Spermonde Islands lie in South Sulawesi Province, Indonesia, comprising c. 120 islands and sand cays, of which < 50% are inhabited. This archipelago is included in the newly accepted (September 2022) Maros-Pangkep UNESCO Global Geopark that extends from the karst mountains of Sulawesi to the island of Kapoposang, 40 miles offshore, and its designated Marine Protected Area covering 311,594 ha.

The Spermonde seascape supports approximately 500 coral species, 1200 fish species and 65,000 people with at least 10,000 fisheries-dependent households. The waters of this archipelago are also a habitat for numerous threatened coral reef species, including sharks, rays (EN), napoleon wrasse (EN), sea cucumber, and groupers (CR).



Despite this, Spermonde is under threat from unsustainable, illegal and destructive fishing practices, as well as poorly managed fisheries. Low knowledge and awareness of local communities, as well as their low involvement in decision making and fisheries management, are some of the problems faced in efforts to improve management. In addition, fishermen's livelihoods are hampered by ineffective markets, fishermen's low level of market knowledge, and inadequate quality control.

In response, **this project aims** to stabilise fish stocks, support productive and sustainable fisheries, improve ecosystem health and resilience and secure livelihoods. This will be achieved by establishing sustainable fishing practices, monitoring systems and co-management actions; developing market systems for marine products; supporting local livelihoods; and integrating evidence-based recommendations into MPA and Geopark management plans for sustainability including land-based/terrestrial plans.

To achieve the goal, there are **4 outputs** in this project. Output 1: support an initial Ecosystem Approach for Fisheries Management (EAFM) assessment, consisting of the collection of ecological, socio-economic and management baselines, conducted by Fauna & Flora with community participation. Output 2: strengthening the existing fisher group already active at the project site and establishing an additional fisher group which replicates the same local governance model. Output 3: take a Participatory Market Systems Development approach to secure livelihoods and fair fish markets, refine and adapt it through use for conservation purposes. And Output 4: promote integrated management of terrestrial, coastal and marine environments by ensuring information on marine ecosystems is incorporated into the management and zoning plan of the Geopark.

2. Project stakeholders/ partners

Main partners:

- 1. Maros Pangkep Geopark Management Body (*Badan Pengelola*-BP Geopark Maros Pangkep). The Maros Pangkep Geopark Management Body acts as a liaison, bridging our work with other governmental efforts in the geopark. They support the implementation of our community initiatives, particularly with women's fisheries groups. The relationship between Fauna & Flora and the management body has been positive, characterised by regular and open communication. Since collaborating with us, they have developed greater awareness and knowledge of the marine environment and its conservation.
- 2. BBKSDA (*Balai Besar Konservasi Sumber Daya* Alam), Regional Natural Resources Conservation Agency of South Sulawesi, Makassar, Indonesia. As our exclusive formal partner under the Ministry of Environment and Forestry (MoEF), with whom we have a Memorandum of Understanding (MoU), they play a key role in planning, implementing, and coordinating with other stakeholders for the Spermonde project. The BBKSDA actively participates in project activities and, despite their terrestrial background, demonstrates a growing knowledge in marine conservation. This collaboration has effectively bridged their organisational roles with community involvement.
- 3. National Marine Protected Areas Agency (*Balai Kawasan Konservasi Perairan Nasional-BKKPN*), Kupang, Indonesia. The BKKPN is a technical implementation unit under the Ministry of Marine Affairs (MMAF) and Fisheries, responsible for managing Marine Protected Areas (MPAs). It oversees the Kapoposang MPA, which is part of the Spermonde Archipelago. In this project, BKKPN provides valuable technical assistance, particularly in refining coral reef monitoring in Kapoposang. They have facilitated the engagement of community groups in community-based patrols, involving 25 individuals. The conservation programs they run in and around Kapoposang Island are progressing well, in collaboration with these community groups.

Other partners/stakeholders:

- 1. Provincial's Marine Affair and Fisheries Service (*Dinas Kelautan dan Perikanan-DKP* Sulawesi Selatan) and its marine service branch (*Cabang Dinas Kelautan-CDK*) of Pangkep Coordination and collaboration on fisheries management and practices primarily occur through their engagement, they maintain an exceptionally positive relationship with the local community and fisher groups.
- 2. Coastal and Marine Resources Management Office (*Balai Pengelolaan Sumber Daya Pesisir dan Laut*-BPSPL) of Makassar It is a technical implementation unit under the Directorate General of Marine Spatial Management Ministry of Marine Affairs and Fisheries of the Republic of Indonesia. They play a role in marine ecosystem protection, empowering coastal communities, and enforcing marine-related laws and regulations.
- 3. Directorate-General of Surveillance and Control of Marine and Fishery Resources (Direktorat Jenderal Pengawasan Sumber Daya Kelautan dan Perikanan-Dirjen PSDKP) under the MMAF The initial relationship has been established, and we plan to enhance our collaboration with them starting in year 2 to coordinate community surveillance activities more effectively.
- 4. Pangkep Regency Tourism Office Coordination is conducted for the development of community-based tourism on Kapoposang Island. We recently organised a joint training session for a community group.

- 5. Regional Development Planning Agency (*Badan Perencanaan Pembangunan Daerah*-Bappeda) of Pangkep Regency: Coordination is underway to contribute insights to coastal development and research in Spermonde, encompassing the management of coral reef areas and community empowerment initiatives.
- 6. Fisheries extension officers under the MMAF based in Pangkep Regency support education and public awareness on fisheries practices.
- 7. Village government of Podang-podang Village and Kapoposang Village Collaboration is underway to align the project with the villages' medium-term development plan. Thus far, the response has been overwhelmingly positive, instilling confidence in our team regarding community empowerment activities in the villages. These activities align with the project plan, particularly concerning fisheries marketing, which will be integrated with the Village-Owned Enterprises.
- 8. Hasanuddin University (*Universitas Hasanuddin—Unhas*) Collaboration has commenced to facilitate the completion of the Ecosystem Approach to Fisheries Management (EAFM) assessment and the implementation of coral reef monitoring.
- 3. Project progress
- 3.1 Progress in carrying out project Activities
- 3.2 Conduct baseline EAFM assessment (including fish resources, habitats and ecosystems, fishing techniques, and economic, social, institutional factors) Completed by Y1
- 3.3 Conduct gaps assessment to identify gaps and priority interventions for sustainable fisheries management (fishing practices, market measures and MPA management actions) in 2 fishing communities Completed by Y1
- 3.4 Conduct training needs assessments for both women and men in two communities Completed by Y1
- 3.5 Develop action plan for sustainable fisheries management practices in two fishing communities

The action plan for the fisheries and women's groups in Podang-Podang was completed by Y1. This year's action plan preparation took place on Kapoposang Island on June 4-5, 2024, involving two established groups: the fisher group "Bangkit Bersama" and the women's fish processing and marketing group "Cemara Laut." The activities were attended by all group members, including 15 from the fisher group and 12 from the women's group. The resulting action plans include enhancing production skills for commodities, promoting the groups and their products, and innovating fishing gear (Annex 4.1. Activity 1.4). We plan to conduct this activity again in the third year to develop a more extensive action plan.

3.6 Conduct a series of workshop/meetings to strengthen inter-stakeholder dialogue and improve MPA/Geopark management

Continuing the meetings from the first year, throughout September 2024, we held a series of stakeholder meetings in the Maros-Pangkep Geopark area. These meetings also served as preparation for Activity 4. The stakeholders included BBKSDA of South Sulawesi, Provincial's Marine Affairs and Fisheries Service of South Sulawesi, Maros Pangkep Geopark Management Body, and the National Marine Protected Areas Agency. The meetings were informal, discussing each party's activity plans within the Geopark area. Previously, on August 9, we met with the Regent of Pangkajene and Islands to present the project's progress and plan to meet again in the third year for the implementation of fisheries' Participatory Market System Development (PMSD).

We also held a coordination meeting with stakeholders on March 21, 2025. This meeting aimed to discuss the overall project progress and coordinate the roles and responsibilities between institutions in marine management. The meeting was attended by representatives from the Ministry of Forestry (Head of BBKSDA of South Sulawesi), the Ministry of Marine Affairs and Fisheries (National Marine Protected Areas Agency and Coastal and Marine Resources

Management Office of Makassar), the head of Marine Affairs and Fisheries Service of South Sulawesi, and local NGOs. One of the outcomes of this meeting was the highlight from the Head of Marine Affairs and Fisheries Service regarding the persistent destructive fishing practices in Spermonde, which we reported during this meeting. He stated that further steps need to be taken to address this issue (Annex 4.2. Activity 1.5)

2.1. Facilitate the establishment and strengthening of fisher groups

We have established fisher groups and community monitoring groups on Podang-Podang Island. This activity was part of the action plan preparation for each group (Activity 1.4). Following this, we conducted group strengthening activities for the groups in Podang-Podang and Kapoposang from July 2024 to January 2025. We also organized a sustainable fisheries discussion and public outreach on conservation area on March 24-27, 2025, featuring National Marine Protected Areas Agency and Marine Service Branch of Pangkep as speakers, and carried out boat measurement activities for the issuance of boat certificates on September 9, 2024, resulting in measurement documents for 66 fishing boats. These activities involved a total of 118 participants (Annex 4.3. Activity 2.1).

2.2. Share results from the EAFM assessment (per Output 1) and collect and incorporate feedback from community consultations

We conducted the dissemination of the EAFM study results on June 28, 2024. This activity involved 32 participants from EAFM Learning Centre Hasanuddin University, BBKSDA of South Sulawesi, National Marine Protected Areas Agency, Maros Pangkep Geopark Management Body, Coastal and Marine Resources Management Office, Directorate-General of Surveillance and Control of Marine and Fishery Resources of Makassar, the government of Mattiro Dolangeng Village, the government of Mattiro Ujung Village, and community representatives. During this activity, participants provided input of activity plans for the Spermonde area. Some of the proposed activities are already being implemented, including those supported by the project, such as the registration of fishing boats carried out in collaboration with the Marine Service Branch of Pangkep (Annex 4.4. Activity 2.2).

2.3 Facilitate action plan development for fisheries improvements in 2 community fisher group

The action plan preparation this year was conducted only on Kapoposang Island, as it was already carried out on Podang-Podang Island in the first year. This action plan preparation was done concurrently with the action plan reported in Activity 1.4. The action plan in Activity 1.4 focused more on micro agendas related to the groups, while the action plan in this section pertains to a broader fisheries audience on the island. The resulting action agendas include the continuation of fish landing monitoring activities, the need for a plan to manage the credentials/legalities of fishing boats, and discussions on sustainable fisheries (Annex 4.5. Activity 2.3).

2.4 Facilitate co-creation and use of project information materials, including flyers, information to use in face-to-face meetings, and at other project meetings, training events and Workshops

We created educational and public outreach media about conservation areas and sustainable fisheries for the community, in collaboration with the National Marine Protected Areas Agency and the Marine Service Branch of Pangkep. Three media products were produced: two types of posters for marine species and ecosystem protection campaigns, and one catalogue of fish species targeted by fishers in Podang-Podang and Kapoposang, available in two languages. This catalogue supports efforts to link fish marketing, serving as a dictionary of fish species for buyers and fishers. The conservation area information session was held on Podang-Podang and Kapoposang Islands from February 24-27, 2025, with 41 participants from various sectors. This activity resulted in a plan to establish a cooperation network among stakeholders to support more effective and sustainable fisheries resource management (Annex 4.6. Activity 2.4).

Lastly and most importantly, we have developed an online dashboard to display the status of fisheries in Spermonde, accessible to fishers and any partners via a barcode. This platform is in Indonesian, as our primary target audience is local and national partners. The dashboard includes a general map of fishing areas, the number of fishers contributing data, total catch data per fishing gear at each location, the number of fish species caught per gear, the percentage weight of catch per fish species, and Catch Per Unit Effort or CPUE (<u>fish-landing dashboard</u>).

2.5 Facilitate a series of training sessions for community-based fisheries management in monitoring surveillance standard/protocols, fisheries management, fish landing monitoring, SMART patrol

During this reporting year, four sub-activities were implemented under this activity: (1) SMART Patrol training for marine ecosystem, (2) implementation of SMART Patrol, (3) fish-landing monitoring, and (4) a study on destructive fishing. The SMART Patrol training was attended by 29 participants, including fishers and representatives from relevant marine agencies—BBKSDA, Marine Service Branch of Pangkep, National Marine Protected Areas Agency, Coastal and Marine Resources Management Office of Makassar, and Directorate-General of Surveillance and Control of Marine and Fishery Resources. The SMART Patrol implementation involved 10 fishers from each community monitoring group (*pokmaswas*) on the two islands, along with 10 personnel from government agencies. The fish-landing monitoring activity recorded daily catches from 45 boats operating in Podang-podang and Kapoposang over a period of 138 days. The resulting data were further analysed using the Length-Based Spawning Potential Ratio (LBSPR) method.

The LBSPR method is an approach used to assess the reproductive potential of fish stocks based on length distribution. Measurement of LBSPR relies on easily obtainable length data and enables stock condition estimates by incorporating species-specific growth parameters. We applied this method to analyse five snapper and grouper species in Podang-podang and Kapoposang, namely Timor (red) Snapper (*Lutjanus timorensis*), Mahogany Snapper (*Lutjanus mahogoni*), Sixbar Grouper (*Epinephelus sexfasciatus*), Spotted coralgrouper (*Plestropomus maculatus*), and Orang-spotted grouper (*Epinephelus coioides*).

The analysis showed that most of the species caught by fishers in Podang-podang had Spawning Potential Ratio (SPR) values below 0.20, indicating high exploitation pressure and a potential risk to population sustainability. However, it should be noted that the data collected in Podang-podang were not yet sufficient to produce a representative analysis at this time. In contrast, the SPR value in Kapoposang was 0.42, suggesting that the grouper stock in Kapoposang is in healthy condition, although continued monitoring remains necessary.

We successfully gathered updated data and insights on destructive fishing practices in the Spermonde region through a dedicated study. We undertook this study because of the urgency of the issue in Spermonde and in response to a key highlight from the previous year's annual report review, which strongly encouraged further investigation.

The study engaged 14 informants: 4 key stakeholders and 10 primary sources, including former and current destructive fishing practitioners from five islands. To ensure a comprehensive and in-depth analysis, we adopted the 2003 report framework developed by Destructive Fishing Watch Indonesia (DFW Indonesia) as a guide for defining the study's scope.

We are currently finalising the report Overall Overall destructive fishing practices in Spermonde have not significantly changed since the DFW Indonesia study conducted 22 years ago. The issue remains deeply entrenched and continues to be driven by substantial conflicts of interest (Annex 4.8. Activity 2.5).

3.1 Conduct market linkages and gaps assessment using Participatory Market System Development (PMSD) market mapping approach

This year, we established market linkages by visiting fishery companies and retail outlets with fishers and village officials. We visited three fishery companies and four retail outlets. The Head of Mattiro Ujung Village of Kapoposang Island used the information to reactivate his live fish collection business on a larger scale. However, fishers still face challenges in meeting the quality and quantity standards required by companies.

We also held a meeting on March 18, 2025, bringing together the government, fishers, and entrepreneurs. Attendees included the Fisheries Service of Pangkep Regency, the Regional Research and Development Agency of Pangkep Regency, and representatives from three companies: Buana Laut, Wahyu Pradana, and Reski Abadi. Companies challenged fishers to meet their demands. The Head of the Fisheries Service of Pangkep expressed the need for an

ice factory in Podang-Podang and plans to visit the island to assess feasibility, showing readiness to meet with the Regent of Pangkep along with Fauna & Flora team (Annex 4.9. Activity 3.1).

3.2 Facilitating the development of action plans by priority stakeholder groups to improve commodity / product quality and meet market standards from two communities, including gender-disaggregated measures

We integrated this activity with Activities 1.4, 2.3, and 3.1. From this integration, we developed an action plan for market link-up by visiting companies (as reported in Activity 3.1).

3.3 Facilitate monitoring and evaluation of stakeholder action plan implementation

Monitoring and evaluation of the action plan implementation were conducted for all groups in Kapoposang and Podang-Podang, including fisher groups and fish processing and marketing groups, from February 24-27, 2025. The monitoring and evaluation were carried out through observations and interviews with group members using the assessment forms of the MMAF. The assessment results indicated that both fisher groups on both islands, "Bangkit Bersama" and "Podang-Podang Jaya," are categorised as Beginner. The fish processing and marketing group "Ombang Cantik" is also categorised as Beginner, while the "Cemara Laut" group is categorised as Intermediate (Annex 5.1. Activity 3.3).

3.4. Facilitate Participatory Impact Assessment to identify project impacts and attribution - Scheduled in Y3

3. 5 Facilitate training to strengthen markets and livelihoods

Under this activity, we have implemented the action plan agendas for the fisher groups and women's fish processing groups. Five action plan agendas were carried out this year: (1) Boat measurement for boat legalisation, (2) Sustainable fisheries discussion, (3) Fish product packaging training, (4) Legalisation of fishery products, and (5) Developing business model canvas. The last three activities were primarily aimed at the women's fish processing and marketing groups. Additionally, we exhibited products at the Maros Pangkep Geopark exhibition, featuring products from the women's groups such as dried fish, cakalang fish sambal, cooking coconut oil, and virgin coconut oil (Annex 5.2. Activity 3.5).

4.1 Facilitate stakeholder workshops to develop models of land-based impacts on marine environment

We conducted an additional survey on land-based impact. This survey aimed to calculate the environmental load generated on land that would impact the marine ecosystem. The results were used as discussion material in a multistakeholder workshop. The survey included water quality measurements in three river basins with 14 sampling stations and a social survey on the use of fertilizers and pesticides involving 50 fish farmers and rice field cultivators.

The workshop was held on December 18, 2024, hosted by the Maros Pangkep Geopark Management Body. It was attended by the BBKSDA of South Sulawesi, National Marine Protected Areas Agency, Bantimurung National Park Authority, Marine Service Branch of Pangkep, Hasanuddin University, the Center for Standardization and Industrial Services for Plantation Products, Metal Minerals, and Maritime, the Environmental Agency of Makassar, the Environmental Agency of Pangkep, and two major mining companies in Pangkep (Semen Tonasa and Semen Bosowa). This activity resulted in four main recommendations. These include the control of pollution and proper wastewater management, effective sediment management, and the stabilisation of riverbanks to prevent erosion. Additionally, the study highlighted the need for increased community awareness and greater stakeholder engagement in environmental issues. Lastly, it emphasized the importance of preventing nutrient pollution from agricultural runoff to safeguard water quality and ecosystem health (Annex 5.3. Activity 4.1).

3.2 Progress towards project Outputs

Output 1. By EOP, the Ecosystem Approach for Fisheries Management (EAFM) is being implemented by two fishing communities with support from MPA/Geopark managers

The dissemination of the EAFM Report was conducted on June 28, 2024, involving 32 participants from various parties. The assessment resulted in 20 recommendations across four categories (Activity 2.2). Additionally, the EAFM assessment results were supplemented with data from the fish-landing monitoring (Activity 2.5), the coral reef ecosystem condition survey (Activity 2.5), and the PMSD capacity building (Activity 3.1).

To gain support from MPA authority and the Maros Pangkep Geopark Management Body for community-led EAFM implementation, a series of multistakeholder discussions were held involving both parties. These discussions took place from August to October 2024, emphasizing the need for synergy in natural resource utilisation monitoring (see Activity 1.5).

We collaborated with the Marine Service Branch of Pangkep and the community to issue fisher cards "Kusuka" (*Kartu Pelaku Usaha Kelautan dan Perikanan*) and legalise fishing boats on Podang-Podang and Kapoposang Island. A total of 40 Electronic Fishing Vessel Logbook, 110 boat certificates, Business Identification Numbers for 112 fishers, and "Kusuka" cards for 112 fishers were issued. These documents were prioritised in the fisher action plan.

Output 2. By EOP, two communities are actively co-managing their fisheries resources through monitoring and surveillance patrols

This year, we formed several groups in Podang-Podang and Kapoposang (Activity 2.1). In Podang-Podang, we established community monitoring groups, following similar groups already formed in Kapoposang by the National Marine Protected Areas Agency before the project began. Following the formation of monitoring group in Podang-Podang, we conducted training activities to strengthen the groups in Podang-Podang and Kapoposang from July 2024 to January 2025 (Activity 2.5).

The training activities included SMART Patrol training for marine, SMART Patrol implementation, and community-involved fish-landing monitoring. The SMART Patrol training was attended by 29 participants, consisting of fishers and marine agencies (BBKSDA, Marine Service Branch of Pangkep, National Marine Protected Areas Agency, Coastal and Marine Resources Management Office, and Directorate-General of Surveillance and Control of Marine and Fishery Resources). The SMART Patrol implementation involved 10 fishers from each community monitoring group on both islands and 10 government agency representatives. This year's fish landing activities recorded daily catches from 45 boats from Podang-Podang and Kapoposang Islands over 138 days. The fish landing monitoring also produced data on the distribution of fishing grounds for fishers in Podang-Podang and Kapoposang.

Output 3. Fisheries livelihoods in two coastal communities are more secure and sustainable through implementation of Participatory Market Systems Development

Training sessions to strengthen livelihood capacities and efforts to build fishery product marketing networks were conducted (Activity 3.5). These training sessions were followed by market link-up efforts (Activity 3.1) through visits to buyers who had not been previously accessed by the island communities. From these visits, the Head of Mattiro Ujung Village of Kapoposang Island attempted to reactivate his live fish collection business. Additionally, a stakeholder meeting was held (also under Activity 3.1) to support the development of the fishery business in Spermonde. This meeting brought together the Pangkep Regency government, fishery companies as buyers, and fisher representatives. During the meeting, companies challenged the fishers to meet their demands. The fishers have not been able to meet the companies' demands due to two factors: they are still tied to their old patrons, and they have not been able to meet the consistency in quality and quantity standards required by the companies. In this meeting, the Head of the Fisheries Service of Pangkep stated the need to build an ice factory in Podang-Podang and will conduct a feasibility survey on the island.

Output 4. By 2026, the management and zoning plan of the Geopark for the Spermonde Karst island include actions to mitigate land-based impacts on marine ecosystems

We conducted a survey to determine the environmental load generated in the Maros-Pangkep Geopark area. This included water quality surveys at 14 points in three river basins and coastal areas, and a social survey on the use of fertilizers and pesticides among fish farmers and farmers. The survey results were then used as discussion material in a stakeholder workshop, which was the main agenda of this output. The workshop was held on December 18, 2024, attended by stakeholders within the Maros-Pangkep Geopark area, including two national cement companies, Semen Bosowa company and Semen Tonasa company. The workshop produced a compilation document of the stakeholders' work plans and recommendations from the Maros-Pangkep Geopark Management Body, indicating that further surveys are needed, particularly on sedimentation patterns in rivers with mining activities.

3.3 Progress towards the project Outcome

Outcome: By 2026, the Spermonde seascape benefits from community-based marine monitoring, sustainable fishing practices, market development, and protection in terrestrial plans, supporting local livelihoods and stabilising fish stocks

Indicator 0.1 By End of Project (EOP), sustainable fishing practices piloted in 2 communities including 2,800 people, and advocated into Kapoposang MPA and Maros-Pangkep Geopark management

Based on the review notes from the NIRAS team last year, the target number of people impacted by this project was deemed unrealistic at 2,800 people. We agree with this assessment and have revised the target number to 1,300 people. This new figure is determined based on the population of both islands, totalling 1,759 individuals (2023), and the trend of people involved in the project implementation so far.

By the end of the second year, a total of 1,057 people have been reached, both directly and indirectly. This number consists of 919 men and 138 women, detailed as follows. The program outreach activities involved 29 men from village government, community leaders, fishers, and women fish processing and marketing group members. In the dissemination of the EAFM (Activity 2.2), 48 people participated in the preparation of sustainable fisheries management action plans in two groups (Activity 1.4), consisting of 36 men and 12 women. A total of 31 people were involved in the formation of community monitoring groups (Activity 2.1), including 30 men and 1 woman. The sustainable fisheries training involved 350 people (337 men, 13 women). The SMART Patrol training involved 29 men, and the monitoring activities involved 19 men.

In the implementation of fish-landing monitoring (activity 2.5), four enumerators from the island's residents were involved, consisting of 2 men and 2 women. Additionally, 8 male ship captains participated in the data collection. In the capacity-building activities, 149 people were involved, including 55 men and 94 women from women's groups and fisher groups. The destructive fishing study involved 14 people, including 13 men and 1 woman. In the workshop on strengthening dialogue among stakeholders to reduce land-to-sea impacts within MPAs and Maros-Pangkep Geopark (Activity 1.5), 32 participants were involved, including 25 men and 7 women.

Indicator 0.2 By EOP, two community-based monitoring surveillance teams established and conducting at least 40 patrol surveillance actions per month

The Mattiro Ujung community monitoring group on Kapoposang Island has been formed with 10 male members. The Podang Lestari monitoring group on Podang-podang Island was formed in the second year of the program with 31 members, including 30 men and 1 woman.

Indicator 0.3 By EOP, catch per unit effort (CPUE) of priority fisheries target species of grouper are stable

Length-Based Spawning Potential Ratio (LBSPR)Analysis

In this second year, we have assessed the catch status of groupers and snappers based on the fishing activities conducted by fishers in Podang-podang and Kapoposang. We applied the LBSPR method (as per Activity 2.5) to assess the spawning potential of the fish. We measured at least 5 species of groupers and snappers such as Timor (red) Snapper (*Lutjanus timorensis*), Mahogany Snapper (*Lutjanus mahogoni*), Sixbar Grouper (*Epinephelus sexfasciatus*), Spotted coralgrouper (*Plestropomus maculatus*), and Orang-spotted grouper (*Epinephelus coioides*).

Based on the catches of fishers in Podang-podang, those snappers and groupers have a Spawning Potential Ratio (SPR) below 0.20, indicating a very high risk to their population sustainability. Red Snapper has an SPR of 0.26, indicating moderate fishing pressure. One group of groupers has an SPR of 0.45, indicating a healthier condition. Based on the catches of fishers in Kapoposang, the grouper stock is still in healthy condition with an SPR of 42%. It is recommended to maintain a minimum catch size above L50 (35 cm) to ensure stock sustainability. Regular monitoring is needed to identify changes in population length structure and ensure sustainable exploitation.

Catch per Unit Effort (CPUE) Analysis

Based on the analysis results in the second year, the CPUE trends on both islands generally show a variance that is not too wide or relatively close to the expected trend at indicator 0.3. In Podang-podang, of the 3 fishing gears, namely "jaring tarik berkantong" or pocket seine net with square mesh (replacing previous "cantrang" or Danish Seine net with diamond mesh), "perre-perre" or traditional beach seine, and bottom gillnet, all showed minor changes. The CPUE of this pocket seine net in the first year was 503.59, and in the second year it was 397.09. Perre-perre in the first year was 85.84 and in the second year it was 71.45. As for bottom gillnet, in the first year it was 3.64 and in the second year it was 1.3.

In Kapoposang Island, there are 2 fishing gears: handline and octopus' line. The CPUE of handline in the first year was 344.59 and in the second year it was 1,265.1. For the octopus' line, in the first year it was 227.00, and in the second year it was 313.95. The large difference in CPUE values for the handline is estimated to be due to the difference in the amount of data analysed. The data in the second year was twice as much (6 months of data) as the data in the first year (3 months), and the handline is the most numerous fishing gear in Kapoposang.

However, it should be noted that the amount of data processed from both islands is still very small to see CPUE trends, which is only data from 2 years, consisting of observations for 3 months in the first year and 6 months in the second year.

Indicator 0.4 By EOP, fisheries-dependent livelihood security is improved in two communities through Participatory Market Systems Development (PMSD)

Training sessions for capacity building of fisher groups and women's groups on both islands have been conducted, reaching 149 participants (55 men, 94 women). This was followed by market link-up efforts, where they met with buyers who had not previously been reached by the fishers and women's groups. The market link-up efforts have not yet yielded tangible results for the communities on both islands because the fishers and women's group members have not been able to meet the quality and quantity standards required by the companies/buyers. However, this effort has provided valuable information to both parties and motivated the village head in Kapoposang to resume the live fish collection business he once ran. Additionally, from the stakeholders' meeting to support fisheries livelihoods on both islands held on March 18, 2025, the Pangkep Regency government stated that they would consider building an ice factory in Podang-podang.

Indicator 0.5 By EOP, land-based impacts on marine ecosystems are incorporated into relevant areas of the management and zoning plan of the Geopark

A land-based impact survey has been conducted to estimate the environmental burden arising from land activities to the sea, followed by a meeting of stakeholders to discuss the issue. Both activities were organised by Fauna & Flora and hosted by the Maros Pangkep Geopark Management Body. There are no concrete plans yet regarding the integration of the survey results into the geopark zoning, but the management body wants this activity to continue and has stated the need for further observation regarding sedimentation in one of the main watersheds in Pangkep, the Pangkep Watershed.

3.4 Monitoring of assumptions

Overall, the project is still on track—with some target revisions as suggested in the year 1 report. The activities carried out are still in line with the achievements and design outlined in the work plan. The notes provided in the review of the year 1 report have also been very helpful in setting the direction and targets of this project. Additionally, we continue to maintain good relationships with our partners, including the BBKSDA of South Sulawesi, National Marine Protected Areas Agency, Provincial Marine Affairs and Fisheries Service of South Sulawesi, Maros Pangkep Geopark Management Body, Regional Development Planning Agency of Pangkep Regency, Fisheries Service of Pangkep. Communication with these parties has reached an informal level. Likewise, we maintain good relationships with other partners such as Hasanuddin University, the regency government, village governments, and local NGOs. The communities in both project locations also show positive acceptance of this project.

3.5 Impact: achievement of positive impact on biodiversity and multidimensional poverty reduction

This project is expected to have a significant impact on poverty alleviation and biodiversity conservation through the implementation of all project outputs by the community and partners. The implementation of the Ecosystem Approach to Fisheries Management (EAFM) by the community (output 1) is expected to result in a sustainable fisheries management. This is complemented by marine resource monitoring activities conducted by the community (output 2), accompanied by additional income generated through improved market chains resulting from the implementation of Participatory Market System Development (output 3). Additionally, more effective area management by the managing authorities is anticipated through the implementation of Output 4.

The project has made substantial progress towards its objectives in the second year. All planned activities have been successfully implemented, including the dissemination of the EAFM (see narrative activity 2.2 and complete report annexes), the formation and strengthening of fisher groups and women's groups (activity 2.1), and the preparation of group action plans (activity 1.4). Additionally, the PMSD assessment has provided valuable insights into the commodity supply chain for community products on both islands (activity 3.1).

While significant impact on the issue has not yet been fully realised, the groundwork laid by these activities is paving the way for future success. As part of Outputs 1 and 4, a stakeholder workshop involving all relevant authorities related to the management of the Spermonde area was successfully conducted. This workshop aimed to synchronise the work programs of the stakeholders and resulted in agreements among the participants, particularly regarding land-based impact activities (activity 4.1).

4. Project support to the Conventions, Treaties or Agreements

This project supports:

- 1. Convention on Biological Diversity (CBD),
- 2. National Biodiversity Strategic Action Plan (NBSAP),
- 3. International Coral Reef Initiative (ICRI) objectives,
- 4. Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) objectives,
- 5. FAO Code of Conduct for Responsible Fisheries,

- 6. Global Goals for Sustainable Development (SDGs), And in the development of this project implementation, this project also supports:
- 7. Indonesia's national direction against Illegal, Unreported and Unregulated (IUU) Fishing through many regulations, such as: (7.1) Law No. 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries, (7.2) Regulation of Minister of Marine Affairs and Fisheries No. 24/Permen-KP/2020 concerning Organization and Work Procedures of the Task Force for Eradicating Illegal Fishing (7.3) Presidential Regulation No. 115 of 2015 Concerning the Task Force for Eradicating Illegal Fishing.
- 8. Regulation of Minister of Marine Affairs and Fisheries (MMAF) of the Republic of Indonesia Number 36 of 2023 concerning Placement of Fishing Equipment and Fishing Assistance Equipment in Measured Fishing Zones and State Fishery Management Areas of The Republic of Indonesia in Land Waters.

Conventions, Treaties or Agreements	Support description
CBD and NBSAP	This project contributes primarily to Article 8(a) by supporting the establishment of marine protected areas to preserve biodiversity, 8(c) in promoting management practices that conserve and enable sustainable use of biodiversity, and 8(e) by fostering development, in particular by improving community knowledge of fisheries markets and supply chains whilst identifying opportunities to add product value. This project also supports Article 13(b) through the information, education and communication resources produced and shared.
ICRI	International Coral Reef Initiative (ICRI) is a state-level partnership advises all UN Environment bodies and other international conventions (including CITES, CMS) on coral reefs. It also works with member governments to compile global reef datasets (through the Global Coral Reef Monitoring Network). This project will contribute to ICRI objectives by developing/adopting best practices in sustainable management of coral reefs and associated ecosystems, alongside capacity building and increasing awareness.
CTI-CFF	Indonesia signed the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) in 2009. This project will contribute to food security through sustainable management of marine natural resources.
FAO Code of Conduct for Responsible Fisheries	Indonesia ratified the FAO Code of Conduct for Responsible Fisheries in 1995. It was adopted in Resolution 4/95 by the FAO Conference on 31 October 1995. This project will contribute to implementing the principles of responsible fisheries in a disciplined manner.

SDGs	 This marine-focused project primarily contributes to SDG14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Specific targets include 14.2, by promoting sustainable use and improved management of the high-biodiversity Spermonde marine environment; 14.4, by working to end destructive fishing practices, including the use of explosives, and by contributing scientifically to integrated marine/ coastal/ terrestrial management plans; 14.5, by supporting the conservation of the marine environment in line with commitments made by the Government of Indonesia; and 14.b by supporting improved access to markets for small-scale artisanal fishers resident in the archipelago. Through its participatory processes, the project also contributes to: SDG16.6, in developing effective, accountable and transparent institutions at the community level through training for fishers and local associations in areas such as financial management, gender and governance; SDG5.5 by creating opportunities for women's leadership and supporting their inclusion with dedicated training and activities; SDG8.4 by working to decouple economic growth from environmental degradation, through more sustainable fisheries practices, and SDG12.2, by promoting the sustainable management and use of the Spermonde seascape natural resources, including their connections to coastal and terrestrial areas for an integrated approach.
Indonesia's national direction against IUU Fishing	 This project contributes to reducing IUU fishing in Indonesia through: Facilitation of the issuance of Fisheries Business Permits (SIUP) and Fishing Permits (SIPI) on Podang-podang Island Facilitation of ship measurements and issuance of ship pass documents on Kapoposang Island Strengthening community-based marine surveillance groups and SMART patrol training which will be implemented in Y2
Regulation of Minister of MAF No. 36/2023 concerning Placement of Fishing Equipment and Fishing Assistance Equipment	This project contributes to the government's "measurable fishing" programme (formalised through Regulation of the Minister of MAF No. 36/2023 concerning Placement of Fishing Equipment and Fishing Assistance Equipment) through the implementation of an action plan for the Podang-podang Island fishermen group to conduct training regarding modification of <i>Cantrang</i> (Trawls or Seine Net) into <i>Jaring tarik Berkantong</i> (Pocketed Drag Fish Net). This modification also contributes to the issue of destructive fishing.

5. Project support for multidimensional poverty reduction

This project supports multidimensional poverty reduction by increasing the capacity of coastal communities to access, utilise, and conserve their marine resources, particularly fisheries. It aims to improve the quality of decent work in coastal areas and enhance community involvement in sustainable fisheries management. The project focuses on training and supporting community groups, facilitating the legalisation of small-scale fishing vessels, and improving post-harvest fish quality. These efforts help fishers sell their catch more easily and at higher prices. Community involvement in Podang-Podang Island and Kapoposang Island has increased significantly. The project encourages collaboration on data collection, group activities, SMART patrols, and participation in decision-making for their action plans.

This year, a series of activities have been carried out to support the fisher community. Initially, fisher groups and women's groups were formed, followed by the preparation and implementation of group action plans. These included training sessions to strengthen the groups, legalising fishing vessels, and issuing fisher identity cards (activities 1.4, 2.1, 2.3, and 2.5). Additionally, to promote the conservation of fish resources and biodiversity, community monitoring groups were established, and training and implementation of SMART patrols were conducted (activity 2.5). Educational and outreach media were also created to emphasise the importance of managing conservation areas and sustainable fisheries (activity 2.4).

The inputs provided to the community were further supported by market link-up efforts in Output 3. A market gap assessment using the PMSD approach (activity 3.1) was followed by visits to fish buyer companies and a workshop with fisheries stakeholders. These efforts helped fishers in Podang-podang and Kapoposang discover new marketing opportunities. Additionally, the Pangkep Regency government expressed their intention to build an ice factory on Podang-podang Island to support local fishing activities.

The meetings between fishers and buyers have not yet established a new marketing channel due to the fishers' inability to meet the required quality and quantity standards. We recognise the need for further programmatic steps to address this gap, such as establishing an intermediary business entity. We plan to report this to the Regent of Pangkep, presenting fisheries potential data from the fish-landing monitoring activities in Y3.

6. Gender Equality and Social Inclusion (GESI)

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	X
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	

The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	
onaligo	

This project aims to improve gender equality by providing training and capacity building to 6 community entrepreneurship groups, targeting 30% female membership. Currently, 41% of the members in the 4 formed community groups are women. This is an encouraging development achieved in just two years, especially considering that previously all fisheries management activities—including capacity-building efforts—were exclusively carried out by and for men.

In terms of participation—not limited to direct beneficiaries—women made up 13% of total participants across all activities. During the kick-off meeting, female participation reached 20%. In the action plan development and group formation activities, women represented 55% of participants. Participation in the administrative and financial training was 47%, while the branding and marketing workshop had the highest female representation at 83%. In the marketing group action plan monitoring and evaluation sessions, women made up 78% of participants. For the fish-landing data collection activity, female participation was 57%, and in the Business Model Canvas capacity-building training, it reached 54%.

The increased participation of women marks an important first step in promoting gender equality, particularly in the context of natural resource management. Moving forward, we hope to see more meaningful engagement, with women actively involved not only in economic activities but also in political and social dimensions of community decision-making.

7. Monitoring and evaluation

The Monitoring and Evaluation (M&E) Plan, designed in a user-friendly format, includes a foundational work plan. A functional online dashboard facilitates effective project management and performance tracking. These tools provide insights into project performance, governance, and key lessons learned. Project performance is assessed by comparing output indicators and budget expenditures against the approved project documents. Governance structures clearly outline the roles of each staff member, supported by a cross-sectoral team.

The dashboard tracks the status of current-month activities, indicating whether tasks are on track, delayed, or ahead of schedule (Project Tracking Monitoring Tools - Spermonde.xlsx). (Project Tracking Monitoring Tools - Spermonde.xlsx). It provides real-time progress updates while monitoring the quality and delivery of outputs. Budget expenditure comparisons reflect the project's investment value.

Clear guidelines ensure accurate completion of M&E documentation, covering progress updates, indicator quality, challenges, and budget monitoring. Comprehensive staff training has been provided to ensure competency in data entry and referencing key documents.

8. Lessons learnt

Overall, project implementation this year proceeded smoothly, with all planned activities executed without major issues. However, the intended outputs have not yet been fully achieved. Four key lessons emerged from this year's implementation:

Effective stakeholder communication remains a critical success factor. Although widely recognised as essential, the importance of strong communication and relationship-building with stakeholders was reaffirmed during this year's activities. For instance, Activity 4.1 involved sensitive discussions concerning two major extractive companies (cement manufacturer) operating within the geopark area. The activity proceeded smoothly due to effective collaboration with the Maros Pangkep Geopark Management Body, which hosted the workshop, enabling better anticipation of sensitive issues. Likewise, the coordination meeting

under Activity 1.5 was successfully conducted—despite limited preparation time—owing to strong relationships with key agencies, including the South Sulawesi's Marine Affair and Fisheries Service and the BBKSDA of South Sulawesi.

A market-driven approach enhances the sustainability of project outcomes. Lessons from activities under Output 3 emphasise the importance of aligning project strategies with market mechanisms. Engaging with private sector actors that apply sustainability standards to their sourcing practices—followed by preparing local fishers to meet these requirements—can support more effective and lasting shifts toward sustainable resource use. This approach, however, requires sustained engagement and long-term planning.

Efforts to reduce destructive fishing must be geographically targeted. Findings from the destructive fishing assessment (Activity 2.5) indicate an overall decline in destructive practices across the Spermonde waters compared to two decades ago. However, incidents persist in specific locations. These findings suggest that future interventions should focus more intensively on these high-risk areas, potentially through IT-based surveillance systems that involve the wider public, tailored alternative income generation (AIG) activities combined with market-oriented strategies. It is essential that these AIG initiatives provide viable, competitive livelihood alternatives to ensure uptake and sustainability.

A longer implementation timeframe is necessary to achieve ecological outcomes. Indicators such as CPUE stability (Indicator 0.3) require extended timeframes due to the complex variables influencing ecological change. These include both internal factors (e.g., local fishing practices) and external environmental drivers (e.g., oceanographic conditions). Achieving measurable improvements in ecosystem health and fisheries sustainability will require longer-term investment beyond the current project duration.

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

In response to the review of last year's annual report, we undertook four key actions: (1) revising the target number of project beneficiaries, (2) conducting a Length-Based Spawning Potential Ratio (LBSPR) analysis for grouper species, (3) carrying out research on destructive fishing practices, and (4) preparing justification for the environmental benefits of modifying "cantrang" (Danish seine with diamond mesh) into "jaring tarik berkantong" (pocket seine net with square mesh). However, the fourth activity could not be completed, as the MMAF—which is leading the gear modification initiative—has not yet released the results of its study.

The original target of 2,800 training beneficiaries, as stated in the project design, was deemed unrealistic in last year's review (Section 8: Monitoring, evaluation and lessons learnt, p. 6). We fully agreed with this observation and revised the target to 1,300 individuals. This adjusted figure is based on the population of the two target islands and aligned with the implementation trends observed during the project.

Following feedback in Section 2: Comments and queries for Project Leader (p. 2), we conducted an LBSPR analysis for grouper species. The results are presented in Section 2.5 and referenced under Indicator 0.3. We also acknowledge the recommendation in the same review to establish a "cantrang"-free zone. This initiative is being planned for implementation in the next project year.

Destructive fishing remains a central concern of the project and was highlighted in the previous review (Sections 4.3 and 12). In response, we conducted a focused study to better understand the issue within the Spermonde Islands. Findings indicate that while destructive fishing practices have declined over the past two decades, they persist on one or two islands. We conclude that addressing this issue requires a dedicated project with targeted interventions, such as introducing viable alternative livelihoods in those areas. These efforts could be further strengthened through a market-driven approach to sustainability.

10. Risk Management

No new risks have emerged so far. Existing risks have been listed in the Risk Register, where mitigation has been designed for all risks (Risk & Register Framework Spermonde 2024)

11. Scalability and durability

In Section 8, we assessed our collaboration with partners as successful. The BBKSDA of South Sulawesi served as the main implementing partner at the site level, working alongside National Marine Protected Areas Agency, the Provincial's Marine Affair and Fisheries Service of South Sulawesi, and the Maros Pangkep Geopark Management Body, all of which hold authority in the Spermonde region. These institutions directly benefited from the project through support for community groups, data collection (social, economic, and biophysical), and workshops aimed at aligning joint efforts.

At the community level, as also detailed in Section 8, both island communities demonstrated strong acceptance, including support from village governments. This is evidenced by the involvement of boat owners and middle traders—initially not the target of the fish-landing monitoring—who later expressed interest in participating. Notably, the Head of the Pangkep's Fisheries Agency initiated efforts to replicate the fish landing data collection model on other islands as part of the district's fisheries production recording strategy. Moreover, the high level of participation from fishers in forming fisher groups reflects community support that exceeded the initial invitations. Collaboration with partner institutions and local government authorities played a critical role in fostering this acceptance.

12. Darwin Initiative identity

Fauna & Flora consistently communicates information about the Darwin Initiative in project outreach efforts, targeting partner institutions, local governments, and the community. This communication serves as a strategic measure to prevent deviations from project guidelines and improper use of budget by implementing partners. By referencing the provisions of the Darwin Initiative alongside those of Fauna & Flora, explanations regarding budget allocation and expenditure become authoritative and indisputable. Additionally, the Darwin Initiative logo is prominently featured on project dissemination and visibility materials, including presentation materials, training attributes, and report documents.

13. Safeguarding







14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2024 – 31 March 2025)

Project spend (indicative) since last Annual	2024/25	2024/25	Variance	Comments (please explain
Report	Grant	Total Darwin Costs	%	significant variances)
	(£)	(£)		

Staff costs (see below)		
Consultancy costs		
Overhead Costs	†	
Travel and subsistence	†	
Operating Costs	1	
Capital items (see below)		
Others (see below)		
Audit Cost		
TOTAL	142,097.0	142,097.0

For detailed please refer to the financial report

Table 2: Project mobilised or matched funding during the reporting period (1 April 2024 – 31 March 2025)

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)			
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			

15. Other comments on progress not covered elsewhere

We successfully carrying out preliminary research on destructive fishing in the Spermonde region. We undertook this study because of the urgency of the issue in Spermonde and in response to a key highlight from the previous year's annual report review, which strongly encouraged further investigation.

To conduct this study, we engaged 14 informants, comprising 4 key stakeholders and 10 primary sources, which included both former and current practitioners of destructive fishing from five islands. We based our analysis on the 2003 report framework by Destructive Fishing Watch Indonesia (DFW Indonesia) to

ensure a thorough examination of the issue. Our findings reveal that, despite the passage of 22 years since the original DFW Indonesia study, destructive fishing practices in Spermonde remain largely unchanged. The persistence of these practices is deeply rooted in significant conflicts of interest among regional stakeholders.

16. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds to edit and use the following for various promotional purposes (please leave this line in to indicate your agreement to use any material you provide here).

File Type (Image / Video / Graphic)	File Name or File Location	Caption including description, country and credit	Social media accounts and websites to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No

Annex 1: Report of progress and achievements against logframe for Financial Year 2024-2025

Project Summary	SMART Indicators	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
Impact: Spermonde's coral reef			
1 .	s coastal communities both socially and		
economically			
Outcome: By 2026, the Spermonde seascape benefits from community-based marine monitoring, sustainable fishing practices, market development, and protection in terrestrial plans, supporting local livelihoods and stabilising	0.1 By End of Project (EOP), sustainable fishing practices piloted in 2 communities including 1,200 people and advocated into Kapoposang MPA and Maros- Pangkep Geopark	0.1 In the second year, the project reached a total of 1,048 individuals through efforts to promote sustainable fisheries. This figure represents the cumulative number of participants in project activities, consisting of 910 men and 138 women.	0.1 Continue the implementation of activities so that the target for sustainable fisheries continues to progress and the number of people exposed to the program reaches the target.
fish stocks	0.2 By EOP, two community-based monitoring surveillance teams established and conducting at least 40 patrol surveillance actions per monthpark management	0.2 The establishment of Community-Based Monitoring Groups (<i>Pokmaswas</i>) was carried out in Year 2, and community-based surveillance activities were implemented in collaboration with PSDKP, BKKPN, and the Pangkep District Fisheries Office (CDK),	0.2 Conduct SMART-based patrols and organise relevant patrol data to support the duties and functions of the group.

	0.3 By EOP, catch per unit effort (CPUE) of priority fisheries target species of grouper are stable.	using the SMART system (as detailed in Output 2). 0.3 Fish landing monitoring surveys were conducted in two fishing communities (two islands) during the second year, resulting in CPUE data using the LBSPR method, as well as information on the fishing grounds used by local fishers. These datasets will support sustainable fishing practices and strengthen community-based surveillance.	0.3 Continue the Fish-landing monitoring for the Year 3
	0.4 By EOP, fisheries-dependent livelihood security is improved in two communities through Participatory Market Systems Development (PMSD)	0.4 The second year of PMSD activities was implemented in alignment with the establishment of fisher and women's groups, group training sessions, the development of group action plans, and the execution of those action plans.	0.4 Continue advancing the sustainable market development through active community participation, while consistently providing capacity-building training.
	0.5 By EOP, land-based impacts on marine ecosystems are incorporated into relevant areas of the management and zoning plan of the Geopark	0.5 Implemented in Year 2. One stakeholder alignment workshop was conducted (as part of Output 1). During this event, plans for zoning discussions related to the impacts of land-based activities were presented to participants.	0.5 Conduct the second part of land-based impact survey and develop a policy brief in Year 3.
Output 1: By EOP, the Ecosystem Approach for Fisheries Management (EAFM) is being implemented by two fishing communities with support from MPA/Geopark managers	1.1 By the end of Year 1, baseline EAFM information—specifically on socio-economic, ecological, and governance aspects—was made available (Completed in Y1) 1.2 By the end of Year 1, gaps and priority interventions for sustainable fisheries management were identified	 1.1 Baseline EAFM information has been colled 1.2 Gaps and priority interventions have been pursued next year. 1.3 Needs assessments have been conducted year. 1.4 The development of action plans for fisher carried out and will be continued next year. 	identified and will be further

	in two fishing communities (Completed in Y1)	1.5 Stakeholder dialogues have been conduct strengthened in the coming year.	ted and will be further
	1.3 By the end of Year 1, a training needs assessment was conducted for both women and men in two communities, involving at least 60 participants (Completed in Y1 and Y2)		
	1.4 By the end of Year 1, action plans for sustainable fisheries management practices were developed in two fishing communities (Completed in Y1 and Y2)		
	1.5 By the end of the project, stakeholder dialogues were strengthened to improve the management of the MPA/Geopark (Completed in Y1 and Y2)		
	sessment (including fish resources, and techniques, and economic, social,	Done Y1	Done Y1
1.2 Conduct gaps assessment	heries management (fishing practices,	Done Y1	Done Y1
1.3 Conduct training needs ass two communities	essments for both women and men in	Done Y1	Done Y1
	tainable fisheries management nities	Has been implemented on Podang-podang Island and produced 7 action plans (done Y1) and implemented on Kapoposang (Y2) (3 of which are action plans related to reducing IUU fishing).	Fauna & Flora will facilitate the implementation of action plans
		(Action plans related to reducing IUU fishing have been implemented)	

1.5 Conduct a series of worksho stakeholder dialogue and impro	ops/meetings to strengthen intervee MPA/Geopark management	A workshop and a series of discussions were held with each partner on multistakeholder cooperation in the management of the Spermonde area. The sessions were attended by six relevant authorities in Spermonde (BBKSDA of South Sulawesi, BKKPN, DKP, Maros Pangkep Geopark Management Body, and the Pangkep District Government) as well as the government representatives from two villages. Four points of agreement on the management of Spermonde were produced.	The next stakeholder workshop will be conducted based on the points of agreement obtained from this workshop. Each point of agreement will, if feasible, be elaborated into a work plan for each party involved.
Output 2: By EOP, two communities are actively comanaging their fisheries resources through monitoring and surveillance patrols 2.1 By the end of Year 2, fisher and women's groups on Kapoposang Island have been established. 2.2 By the end of Year 2, the dissemination of EAFM assessment results, involving multiple stakeholders, has been carried out. 2.3 By the end of Year 2, two action plans for community fisher groups aimed at enhancing fisheries have been implemented. 2.4 By the end of Year 2, project information materials were cocreated and are being used by two communities. 2.5 Between Year 1 and the end of the project, at least six training sessions were conducted to support sustainable fisheries management		2.1 Fisher and women's groups have been estalling in Year 1, and groups will be formed or 2.2 Implemented in Year 2 and will continue in 2.3 Implemented in Year 2 and will continue in 2.4 Implemented in Year 2 and will continue in 2.5 Two training sessions were held in Year 1 and additional sessions will be conducted in Year 1.	n Kapoposang Island in Year 2. nto Year 3. nto Year 3. nto Year 3. , four training sessions in Year 2,
2.1 Facilitate the establishment	and strengthening of fisher groups	Capacity building for each of the fisher groups and women's groups on	Capacity building for the groups was carried out based

	Kapoposang and Podang-podang Islands has been successfully facilitated.	on the outcomes of the action plans, including efforts for sustainable fisheries management and the development of markets based on PMSD
2.2 Share results from the EAFM assessment (per Output 1) and collect and incorporate feedback from community consultations	The dissemination of EAFM was successfully conducted, involving the Pangkep District Government, local communities, village governments, the Geopark Management Body, CDK, BPSPL, PSDKP, and the EAFM Learning Center from Hasanuddin University.	The results of the EAFM assessment and dissemination serve as a reference for the development of a multistakeholder collaboration plan.
2.3 Facilitate action plan development for fisheries improvements in 2 community fisher groups	Capacity building for the fisher groups and women's groups on Kapoposang Island and Podang-podang Island has been successfully carried out.	These activities will continue into Year 3
2.4 Facilitate co-creation and use of project information materials, including flyers, information to use in face-to-face meetings, and at other project meetings, training events and workshops	Publication and outreach materials for the management of conservation areas and sustainable fisheries are available on Kapoposang Island and Podang-podang Island.	These activities will continue into Year 3.
2.5 Facilitate a series of training sessions for community-based fisheries management in monitoring surveillance standard/protocols, fisheries management, fish landing monitoring, SMART patrol	Training on Sustainable Fisheries, capacity building, and the development of PMSD marketing networks, as well as SMART Patrol training, have been successfully conducted.	These activities will continue into Year 3.

Output 3:

Fisheries livelihoods in two coastal communities are more secure and sustainable through implementation of Participatory Market Systems Development

- 3.1 By the end of Year 2, the development of fisheries market networks was successfully implemented using the Participatory Market Systems Development (PMSD) approach.
- 3.2 By the end of Year 2, action plans were developed by priority stakeholder groups to improve the quality of commodities/products and meet market standards from two communities, including genderspecific steps.
- 3.3 By the end of Year 2, the MEL action plan was successfully implemented for fisher groups and women's groups.
- 3.4 From Year 1 to Year 3, at least seven monitoring and evaluation meetings were conducted quarterly, supported by ongoing mentoring, for market development.
- 3.5 By the end of the project, at least 80% of the stakeholder action plan steps to improve market access were implemented, with progress evaluated through a Participatory Impact Assessment.

- 3.1 The PMSD market system has been developed in two communities.
- 3.2 Action plans have been prepared for fisher groups and women's groups on Kapoposang and Podang-podang Islands, and marketing trials have been conducted.
- 3.3 MEL (Monitoring, Evaluation, and Learning) has been implemented and will continue into Year 3.
- 3.4 Will begin implementation in Year 3.
- 3.5 A stakeholder meeting has been conducted, discussing the implementation of fishery product marketing development.

3.1 Conduct market linkages and gaps assessment using Participatory Market System Development (PMSD) market mapping approach

The PMSD assessment has been conducted on both islands (in both coastal communities). To support the implementation of this activity, PMSD assessment training was also provided (under the activity title 2.5)

Follow-up on the recommendations from the assessment, particularly regarding the improvement of fishery product quality and market linkages, will continue.

3.2 Facilitating the development of action plans by priority stakeholder groups to improve commodity/product quality and meet market standards from two communities, including gender-disaggregated measures		Action plans for the development of fisher and women's groups on Kapoposang and Podang-podang Islands have been prepared. A visit to a fish processing company was conducted, with fisher and collector traders participating, to introduce product quality standards at the company to the fishers and collector traders. A PMSD focus group discussion (FGD) was held with fisher participants, collector traders, and the Pangkep District government.	Facilitate the implementation of the action plan points for the groups. Continue discussions on product quality standards of the company and the potential for fisher groups to establish business partnerships with the company.
3.3 Facilitate monitoring and evaluation of stakeholder action plan implementation		The MEL action plan has been successfully implemented for the fisher groups and women's groups.	The results of the monitoring and evaluation assessment of the action plans for the fisher groups and women's groups will continue into Year 3.
3.4 Facilitate Participatory Impaimpacts and attribution	ct Assessment to identify project	Scheduled in Y3	
3.5 Facilitate training to strengthen markets and livelihoods		Capacity building for the fisher groups and women's groups on Kapoposang and Podang-podang Islands has been successfully carried out using the PMSD approach.	Capacity building for the groups will continue into Year 3.
Output 4: By 2026, the management and zoning plan of the Geopark for the Spermonde Karst island include actions to mitigate land-based impacts on marine ecosystems 4.1 By end of Y2, three stakeholder workshops conducted to develop models of land-based impacts on marine environment 4.2 By end of Y3, two policy brief documents created which recommend improvements to MPA/Geopark management in order to reduce land-based impacts 4.3 By EOP, recommendations for		4.1 The landbase impact survey and worksho successfully conducted, resulting in four mana4.2 Not measured in this period.4.3 Not measured in this period.	

land-based impact mitigation are drafted and incorporated into revised MPA zoning plan 4.1 Facilitate stakeholder workshops and scientific computer-based modelling to develop models of land-based impacts on marine environment	The land-based impact study, involving multiple stakeholders, was successfully carried out in Year 2. This collaborative effort resulted in four key recommendations for improving environmental management. These include the control of pollution and proper wastewater management, effective sediment management, and the stabilization of riverbanks to prevent erosion. Additionally, the study highlighted the need for increased community awareness and greater stakeholder engagement in environmental issues. Lastly, it emphasized the importance of preventing nutrient pollution from agricultural runoff to safeguard water quality and ecosystem health.	The land-based impact study will continue, and a policy brief will be developed.
4.2 Develop a policy brief document to recommend improved management and reduce land-based impacts to the Geopark and MPA	Scheduled in Y3	
4.3 Develop recommendations for land-based impact mitigation and incorporate into revised MPA zoning plan and relevant areas of the Geopark management plans	Scheduled in Y3	

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
Impact: Spermonde's coral reef ecosyste	m is resilient, supports productive fisheries	and benefits coastal communities both so	cially and economically
Outcome: By 2026, the Spermonde seascape benefits from community-based marine monitoring, sustainable fishing practices, market development, and protection in terrestrial plans, supporting local livelihoods and stabilising fish stocks	0.1 By End of Project (EOP), sustainable fishing practices piloted in 2 communities including 2,800 people, and advocated into Kapoposang MPA and Maros-Pangkep Geopark management	0.1 Community fisheries action plan; monitoring surveillance report, Management Effectiveness Tracking Tool (METT) score card report	
	0.2 By EOP, two community- based monitoring surveillance teams established and conducting at least 40 patrol surveillance actions per month	0.2 Report on community group profile; workshop report; community exchange learning report; training report	
	0.3 By EOP, catch per unit effort (CPUE) of priority fisheries target species of grouper are stable	0.3 Fish landing monitoring report	
	0.4 By EOP, fisheries-dependent livelihood security is improved in two communities through Participatory Market Systems Development (PMSD)	0.4 EOP Participatory Impact Assessment	
	0.5 By EOP, land-based impacts on marine ecosystems are incorporated into relevant areas of the management and zoning plan of the Geopark	0.5 Land-based impact modelling report; Geopark management plan	
Output 1: By EOP, the Ecosystem Approach for Fisheries Management (EAFM) is being implemented by two fishing communities with support from MPA/Geopark managers	1.1 By end of Y1, socio- economic, ecological and governance project- specific baseline information is available	1.1 EAFM assessment report	
	1.2 By end of Y1, gaps and priority interventions for sustainable fisheries management are identified in 2 fishing communities	1.2 EAFM assessment report	

	1.3 By end of Y1, training needs assessment conducted for both women and men in 2 communities with at least 60 participants 1.4 By end of Y1 Develop action plan	1.3 Training need assessment report 1.4 Action plan in two fishing	
	for sustainable fisheries management practices in two fishing communities	communities	
	1.5 By EOP, there is strengthened inter- stakeholder dialogue for improved MPA/Geopark management with at least 180 participants	1.4 Workshop and meeting reports	
Output 2: By EOP, two communities are actively co-managing their fisheries resources through monitoring and surveillance patrols	2.1 By end of Y1, one new fisher group established, one existing fisher group strengthened	2.1 Attendance list; group membership documentation; group profile	
	2.2 By end of Y1, at least four community meetings are conducted to share EAFM assessment results and collect feedback	2.2 Meeting/workshop report	
	2.3 By end of Y2, two community fisher group action plans for fisheries improvement are created	2.3 Community meeting report; action plan document	
	2.4 By end of Y2, project information materials are co-created and utilised by two communities	2.4 Information posters, fish landings monitoring forms, community-based monitoring station	
	2.5 Between Y1 and EOP, at least 6 trainings in support of sustainable fisheries management practices are conducted	2.5 Training reports	
Output Fisheries livelihoods in two coastal communities are more secure and sustainable through implementation of Participatory Market Systems Development	3.1 By end of Y1, market linkages and gaps assessed in two communities using Participatory Market System Development (PMSD) approach	3.1 Market maps and market stakeholder analysis	

	3.2 By end of Y1, action plans developed by priority stakeholder groups to improve commodity/ product quality and meet market standards from two communities, including gender-disaggregated measures.	3.2 Action plan documents for fisher groups, women's enterprise groups and fish traders	
	3.3 By end of Y2, 10 training sessions will be conducted to strengthen market and livelihood options with at least 150 participants	3.3 Training reports	
	3.4 From Y1-Y3, at least 7 monitoring and evaluation meetings are conducted on a quarterly basis, supported by ongoing mentoring, for market development	3.4 Monitoring evaluation reports	
	3.5 By EOP, at least 80% of stakeholder action plan measures for improving market access are executed, with progress evaluated through a Participatory Impact Assessment	3.5 Participatory Impact Assessment report	
Output 4: By 2026, the management and zoning plan of the Geopark for the Spermonde Karst island include actions to mitigate land-based impacts on marine ecosystems	4.1 By end of Y2, three stakeholder workshops conducted to develop models of land-based impacts on marine environment	4.1 Workshop reports, list of attendees	
	4.2 By end of Y2, two policy brief documents created which recommend improvements to MPA/Geopark management in order to reduce land-based impacts	4.2 Policy brief documents	
	4.3 By EOP, recommendations for land- based impact mitigation are drafted and incorporated into revised MPA zoning plan	4.3 Land-based impact modelling report, minutes of meetings with MPA managers; draft of updated MPA zoning plan; copies of communication materials	

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

Please see the Standard Indicator guidance for more information on how to report in this section, including appropriate disaggregation.

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregatio n	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-A01	Number of people from key national and local stakeholders completing structured and relevant training	Number of people being trained	Number	Gender; Age Group; Stakeholder group	181 people, 104 men, 77 women	696 people, 544 men, 152 women	NA		1.200 people from 2 communities
DI-B10	Number of individuals/households reporting an adoption of livelihood improvement practices as a result of project activities.	The number of fishermen and women who are independently conducting data collection for Fish landing	People	Men, Women	12 men, 4 women	12 men, 4 women	NA		
DI-C08	Areas of importance for biodiversity identified	Areas (Important Marine Megafauna and Biodiversity)	Area (hectare)	Marine Ecosystem	Kapoposan g MPA 50,000 ha	Kapoposan g MPA 50,000 ha	NA		

Table 2 Publications

Title	Type (e.g. journals, best practice manual, blog post, online videos, podcasts, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, scheme, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	
Is your report more than 10MB? If so, please consider the best way to submit. One zipped file, or a download option, is recommended. We can work with most online options and will be in touch if we have a problem accessing material. If unsure, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	
Have you provided an updated risk register? If you have an existing risk register you should provide an updated version alongside your report. If your project was funded prior to this being a requirement, you are encouraged to develop a risk register.	
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see Section 16)?	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	1