

Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	26-025
Project title	Eco-village approach to enhance socio-ecological resilience in Cabo Verde
Country/ies	Cabo Verde
Lead organisation	University of Cabo Verde - UNICV
Partner institution(s)	Cabo Verdean Ecotourism Association ECOCV National Directorate of Environment DNA Bangor University, Ocean Science School Association for the Development of São Francisco ADSF Civil Movement ‘350 Cabo Verde’ ViaggieMiraggi
Darwin grant value	£ 275,486.00
Start/end dates of project	01 April 2019 - 30 March 2022
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	April 2019 – March 2020, Annual Report 1
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1. Project summary

The main purpose of this project is to reduce the negative environmental footprint, increase the value of marine and coastal biodiversity and enhance quality of life within coastal communities on the capital island of Santiago, Cabo Verde. The island is home to 56% of the country's population. With over 70% of the population living on the coast, Santiago has no marine protected/managed areas although households are highly dependent on decreasing marine resources. Data on the state of marine resources are scarce especially on non-commercial marine species and the overall state of the coastal habitats. In addition, the domestic waste system is very basic especially in rural locations; while waste recycling processes in their inception. This project engages vulnerable community members to co-monitor health of marine and coastal ecosystems, introduces set of practical skills for more sustainable use of local resources, and aims to set up the first marine protected area in Santiago island. The first sustainable rural waste management (with a focus on plastic and glass recycling) and an income generating system will be created to increase sustainability of the process. The establishment of an eco-network/ a new eco-tourism destination (in development) promotes sustainable tourism in our country and strengthens capacity for the self-empowerment, boosting local employment in four coastal villages (Porto Rincão, Porto Mosquito, Gouveia and São Francisco).



Figure 1. Map showing the position of Cabo Verde archipelago regionally (a), Santiago Island (b) within the archipelago; (c) the position of target project villages São Francisco, Gouveia, Porto Mosquito, Porto Rincão and the Baía do Inferno, the first marine protected area for Santiago island, under development.

2. Project partnerships

The Eco-Village/Raiz Azul (acronym) is a collaborative project led by the Cabo Verdean institution University of Cabo Verde Uni-CV and co-managed in partnership with the local NGO Cabo Verdean Ecotourism Association ECOCV. Technical expertise is boosted by international partners Bangor University (UK), and ViaggieMiraggi (Italy). In Y1, the lead organization communicated on a regular basis (weekly, daily depending upon necessity) with the ECOCV that resulted in 80-90% joint implementation of all project activities. With international partners communication was done via skype/emails/ and field visits. Dr. Ronan Roche (Bangor University) visited Cabo Verde in September 2019 to attend project workshops and meetings to develop monitoring indicators, and joined fieldwork in that period. Most of the exchange involves discussions and consultations for the achievement of relevant outputs. The main partners are involved in all project stages, including the evaluation of activities and planning for the Y2 including the production of the Y1 Annual Report.

Over the last year we strengthen and built new partnerships with a range of national and local organizations and community groups in each target village, on municipal level, nationally and internationally. More specifically with: CERMI and Electrosol Ltd is responsible for the production and installation of recycling machines; the EU funded Project Xalabas was approached to compliment eco-network development; AAVCV Association of the Travel Agencies of Cabo Verde joined in to support the development and marketing of the eco-network. We started active collaboration with the women's cooperative SULADA to empower women's participation and income generating activities in the target community of Gouveia, we worked with the School of São Francisco to upscale plastic and glass recycling and environmental education in that community. School of Porto Mosquito is an a supporter of all community meetings, training process and environmental education. Scouts of São Francisco joined the participatory monitoring of marine biodiversity and waste management, Municipality of Ribeira Grande of Santiago provides overall support to the project, we implemented some joint activities in environmental education, community meetings and trainings in Porto Mosquito and Gouveia; Municipality of Santa Catarina of Santiago is an active supporter and collaborator for the development of locally managed glass recycling process in Porto Rincão. Municipality of Praia joins us for the waste management in São Francisco and the set up of the eci-recycling centre in that community. The national representative of the Italian organization 'Persone come noi' and OMCV (Women's organization of Cabo Verde) approached us to collaborate in marketing of artisanal products; University Jean Piaget of Cabo Verde and partner ECOCV developed a joint project for the installation of the information panel in Baía do Inferno (funded by the French Embassy); BIOSFERA Cabo Verde, CIIMAR - Interdisciplinary Centre of Marine and Environmental Research, Spanish NGO Edmaktub were active collaborators during during the first marine expedition to assess the biodiversity of Baía do Inferno, the first MPA in development for Santiago Island; CAVIBEL, the national representative of Coca Cola company, is a partner in the plastic waste recycling and corporate responsibility. Association for the Development of Rincão provides a valuable support in communicating our messages to local community and implementation of activities in Rincão.

The key strategy of the project is called 'djunta mo' in cabo verdean language (joining hands/working together) is successfully applied during the Y1 and will continue into Y2 of the project implementation.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1 General and plastic waste management and income generating system developed and adopted in the four coastal villages by the end of the project.

A 1.1 Completed. Meetings and baseline surveys completed. Annexed report A3 details the process and results. Supplement photos and videos available upon request. Plastic recycling will be prioritized in São Francisco; glass recycling in Porto Rincão.

A3. Pereira et al., (2019). *Primeiro estudo de RESÍDUOS SÓLIDOS em Porto Rincão, Porto Mosquito, Porto Gouveia e São Francisco: Avaliação no campo e inquéritos. Santiago, Cabo Verde. (Project report: The first study on the domestic waste in Porto Rincão, Porto Mosquito, Porto Gouveia e São Francisco: assessment in the field.)*

A 1.2. The successful tests were completed with the selected families in São Francisco-including the local school (recycling of paper and plastic), and Porto Rincão (recycling of glass). The supervisors of in Porto Mosquito the project will support the activities started by the local Municipality and the UN (supplements in the form of data sheets/ photos and videos available upon request).

A 1.3 Participation in national and local awareness campaigns focused on the marine and coastal pollution. Targeted messages were communicated to events in: community of Alto Gloria, Municipality of Praia, the National Museum of the Archaeology; the EU Delegation in Cabo Verde beach cleaning campaign; beach clean-up in São Francisco with local scouts. We prepared the blog for the Darwin Initiative newsletter (August 2019) introducing our activities linked to waste management. Regular posts on the topic are communicated on the partner ECOCV Facebook page and website, and the project social media site Raiz Azul Facebook

@raizazulcabo Verde. Eco-citizenship program was introduced to target communities that focuses on personal and communal health and recycling (training modules available upon request).

A.1.4 Partnership started with CAVIBEL, national representative of Coca Cola company in Cabo Verde. Joint project was discussed to run the activities in São Francisco village and set up an eco-recycling centre in collaboration with the Association of the Development of São Francisco. The project would include a massive clean-up campaign that includes central and surrounding area of São Francisco. CAVIBEL encouraged us to develop a proposal for Coca Cola Foundation linked to plastic recycling in the Municipality of Praia.

A.1.5 Active collaboration with CERMI and Electrosol Ltd initiated. They installed the glass recycling machine and the electrical system in Rincão. CERMI committed to developing plastic recycling machines (3 machines with various functions; development proposal is available upon request) for São Francisco in Y2. Order has already been placed.

A 1.6 The first samples of sand from the four villages, and fish stomachs caught by fishermen from Rincão in the coastal area of Rincão Bay were tested for the prevalence of microplastics (with medium size 1-5 mm) in the Uni-CV laboratory. The fish samplings planned for the month of March were cancelled due to the State of Emergency - COVID-19. Annexed reports A4 and A5 summarize the first results.

A4. Pereira and Abu-Raya, (2020) *Primeiros resultados da avaliação de microplásticos no conteúdo estomacal de peixes de valor comercial na comunidade de Rincão, Santiago – Cabo Verde (Project report: First results of the assessment of microplastic in the content of the stomach of the fish with commercial value from the community of Rincão, Santiago, Cabo Verde)*

A5. Pereira and Abu-Raya (2019). *A primeira avaliação de microplásticos dos sedimentos arenosos das comunidades de: Porto Rincão, Porto Mosquito, Porto Gouveia and São Francisco. (Project report: The first assessment of microplastics on the sediments from the target communities: Porto Rincão, Porto Mosquito, Porto Gouveia and São Francisco)*

A 1.7 Ahead of schedule. Through the participation in the national events with EU, UN, Municipality of Praia we already introduced some of the impacts and potential solutions for more sustainable plastic waste management. The participation was communicated on the project social media page Facebook @raizazulcabo Verde

Output 2. Stakeholders and target community members increased knowledge on value of local marine biodiversity and have developed a set of practical skills for more sustainable use of local ecosystem services by the end of the project.

A 2.1. Meetings were held with INDP, National Institute for Fisheries Development (now renamed as the IMar- Institute of the Sea). Data have been received with the information on artisanal fisheries in Gouveia, Rincão and Porto Mosquito villages. Dr. Ronan Roche (Bangor University) produced the candidate list of potential indicators (ecological and socio-economic). This information was presented at the national workshop to assess the gaps in marine and coastal zones, in Sal island in May 2019. In September 2019, Dr. Ronan Roche joined the project team in Cabo Verde. During this time, the workshop was organised to develop and refine the relevant indicators. The refined indicators were incorporated into the socio-ecological questionnaires to assess the viability and challenges of artisanal fisheries (fishers (90% men) and fish sellers (90% women) in target fishing villages and the control site outside the project area. The full project report is annexed under A8. Over the period June 2019-February 2020, 15 Uni-CV students, 10 local fishers, 11 professionals from IMar and IMP (National Maritime Institute) have been trained in participatory marine biodiversity monitoring with the focus on marine megafauna (whale and dolphin surveys and marine birds);

A8. Semedo and Roche (2020). *The baseline study of the socio-ecological indicators in the communities of: Report in the Communities of Gouveia, Porto Mosquito, Porto Rincão and Porto Ribeira Barca. Project report.*

A2.2. Starts in Y2

A 2.3 Started ahead of schedule in April 2019.

Taking invitations and opportunities from various institutions the project team and partners participated in awareness raising events at the National Museum of Archaeology, local community gathering in Alto Gloria; beach clean-up event at Quebra Canela (organised by the EU delegation in Cabo Verde); private school Ell-CV; celebration of the international children's day in Porto Mosquito (organised by the target Municipality of Ribeira Grande de Santiago). All the activities included introduction to the global and national marine and coastal biodiversity; threats and potential solutions.

With an invitation of NGO ADAD in partnership with PRCM (funded by MAVA and Wetlands International) project to reduce impact of coastal construction and development we delivered presentations at the University Jean Piaget in Praia and the Delegation of the Ministry of Environment and Agriculture in Tarrafal (North of Santiago Island) on the problems of coastal constructions/development on marine megafauna and coastal communities. With an invitation from the Ministry of Maritime Economy, in partnership with Civil movement 350 Cabo Verde and Poupard Design, we also participated in the celebration of the Ocean Day (presentation on marine biodiversity and conservation). The participation and contributions were communicated on the project social media site: Facebook @raizazulcaboverde

A2.4 Scheduled for Y2

A 2.5 During the collaborative workshop at Uni-CV, the potential options to test different fishing techniques were discussed among the main project partners and collaborators from IMar and DGRM (National Directorate for the Management of Marine Resources). The field tests with local fishers were conducted in Rincão and Porto Mosquito villages. Fishing techniques, effort, catch composition and weight were recorded. Poor sea conditions influenced the number of days at sea. The surveys will be continued in Y2. The preliminary report and data collection sheets are available upon request. One of the key achievements of the test survey was strengthened relationship with artisanal fishers in target communities.

A2.6 Ahead of Schedule. During the trial eco-tours with the artisanal fishers, the concept of collecting data on marine megafauna was introduced to both local fishers and travellers. In September, the Uni-CV macroalgae specialist ran the assessment to identify algae species in the project zone of Gouveia - Porto Mosquito. One of the potential objectives is use local algae cultivation to support the local livelihoods with the focus on local women. (The report is available upon request).

Output 3. The first MPA/LMMA proposed on the capital island of Santiago and submitted for the integration into the National PA system by the end of the project.

A.3.1 The first marine biodiversity research expedition was conducted in Baía do Inferno in October 2019 by a team of researchers from Uni-CV, ECOCV, Biosfera Cabo Verde, CIIMAR (Portugal) and Edmaktub (Spain) in collaboration with the community of Porto Rincão. Surveys utilized the following methodology: belt transects, photo-quadrants, baited camera trials, opportunistic exploration at 35+m depth (scuba diving), drone mapping of the area. (See Annexed report A2; video and photos materials of the expedition upon request; publicity of the expedition in the press (see Table 2 of this report). The data was complemented by the socio-ecological surveys (see Annexed report A8) and the first geological survey (Annexed report A9). The baseline data showed high occurrence of commercially valuable fish species, lobsters, endemic corals and molluscs. The area also represents important fishing grounds for local artisanal fishers.

A2. Freitas et al., (2020). *Estruturas das comunidades submarinhas da Baía do Inferno, Santiago, Cabo Verde: subsídies para o monitoramento contínuo. (Project expedition report: Structure of the submarine communities in Baía do Inferno, Santiago: baseline for the long-term monitoring)*

A9. Victoria (2019). *Estudos de Mapeamento dos Recursos Naturais Geológicos. (Project report: Mapping of the natural geological resources.)*

A3.2 The first round of the meetings was completed with more advancement in the village of Rincão where the discussion was initiated on the potential zoning, designation, concrete benefits and opportunities. Results of the socio-ecological survey were presented to discuss

the range of opinions re the MPA in Rincão. The meeting in Porto Mosquito was cancelled due to the COVID-19 national measures.

A 3.3 Scheduled for Y2.

A 3.4 Ahead of schedule. The presentation on the potential first MPA in Santiago was introduced to the national stakeholders at the workshop organised by BIOTUR/ UNDP-DNA to identify gaps in the marine and coastal Cabo Verde and propose new marine protected areas. The process of the presentation of the proposal for the establishment of the MPA was discussed with the representatives of the National Directorate of Environment (DNA) and with the target Municipalities of Ribeira Grande de Santiago and Santa Catarina and IMar. The MPA concept was presented and the support for the establishment of the MPA was welcomed.

A 3.5 Ahead of Schedule. Throughout the Y1 most of the press/social media communication about the Baía do Inferno included the notion that this Bay is the first MPA in Santiago, currently in development. The message was very intense during the first marine biodiversity expedition in Baía do Inferno, and the message was communicated nationally via TV, Radio and social media sites.

Output 4. A new rural ecotourism destination/ eco network linking four eco-villages developed to boost local employment, promote sustainable travel, and enhance capacity for long-term employment for the target community groups by the end of the project.

A 4.1 Fully achieved. Community meetings were conducted in all four project villages: São Francisco, Gouveia, Rincão and Porto Mosquito. Socio-ecological and cultural, historic data, local accommodation, food, celebrations, community organizations and active groups in the area were mapped as well as gaps, opportunities needs and challenges. Dossier was prepared for each community and available upon request.

4.2 Fully achieved. Consultation meetings with the Association of Tour Agencies of Cabo Verde was conducted in December 2019. Their feedback was collected via questionnaires. Report is available upon request. List of Agencies showing interest to collaborate was compiled.

4.3 The meeting was held with the Association of Tour Guides of Santiago island. The president of the Association joined the team to explore the eco-trail to Monte Angra/ Baia do Inferno. Italian partner Viaggi&Miraggi provided support in developing questionnaires and local services assessment methodology. Travellers, coming through this organization, already started testing eco-tours in Porto Mosquito-Baía do Inferno eco-network strip. The gap analysis of the eco-network in development was conducted by the consultant from School of Tourism and Hospitality. The pathway for further developed was identified (Annexed report A1)

A1. Monteiro da Cruz and Badovini (2020). *Design da eco-rede de turismo entre as comunidades de: São Francisco, Gouveia, Porto Mosquito, Porto Rincão. Análise das lacunas existentes e plano operacional. (Project report: Eco-network development and gap analysis 2019-20)*

4.4 Due to the uniqueness of each target village, the decision has been made to set up 3 eco-centres instead of one, using locally available resources to support the available budget. The significant progress has been made: Gouveia 70% complete, Rincão 45% São Francisco 40% complete. For Porto Mosquito we are looking for an adequate space in agreement with the local Municipality and local school. Info panels were produced to support the eco-network installation (Annex A6)

A6. ECOCV (2020). *The information and learning panels for the target communities to support the waste management, biodiversity monitoring and ecotourism development*

4.5 The training program was divided into the two parts: Eco-citizenship (waste management, hygiene, first aid, biodiversity monitoring,) and Community (Tour) Guide (code of conduct, reception and communication, trail exploration, languages). 70% of the modules are ready (available upon request) and 50% were delivered. Development and delivery of some modules had to be postponed to Y2 due to COVID-19.

4.6 Ahead of schedule. The brand name for the new eco-network in Santiago island was finalized: Raiz Azul or the Blue Root (as translated from Caboverdean language). The logo has been developed. The project and Raiz Azul brand roll up for the promotion and communication

is ready. Four test tours with the ViaggioMiraggi travellers from Italy were done in Porto Mosquito -Baia do Inferno part of the eco-network (photo, video materials and printed info are available upon request).

A 4.7 Scheduled for Y2

3.2 Progress towards project Outputs

The overall progress of the project is fully on track with some of the activities completed in Y1 as planned while others already ahead of schedule. The progress is being monitored using relevant output indicators and reviewed every quarter using value of the percentage implementation towards the completion of activities and output indicators.

Output 1. The involvement of target community members and national stakeholders is highly positive and encouraging. The baseline domestic waste assessment was conducted in the 4 target communities: São Francisco; Gouveia, Porto Mosquito and Porto Rincão. Evidence is in the attached Annex A3. Drone/ aerial surveys were run to aid the mapping of the waste/trash spread in three communities. Supplemental photos and videos are available upon request. The maps were included in the reports. A glass recycling machine was produced in Cabo Verde and installed in the community of Porto Rincão. This allowed us to save some funds on the transportation and order plastic recycling machine in Y1 which is currently in development by our partner CERMI and will be installed in São Francisco in Y2.

The Eco-citizenship training program is in progress with modules on glass, paper, plastic impacts and solutions. Info materials (Annex A6) produced for Rincão; info waste bins and boards were produced for São Francisco, including numerous photos and videos from training sessions (available upon request). Local communities and municipal government fully support the process. The partnership has been initiated with CAVIBEL, the national representative of Coca Cola in Cabo Verde. Joint activity for the installation of recycling centre in São Francisco is planned for Y2. Microplastic assessment surveys were conducted for the sediment and fish. Annexed reports A4 and A5 detail the results. The indicators are measured using the means of verification detailed in the Annex 2 under the relevant output. Part of the evidence materials are included with this report; other available upon request.

Output 2. Baselines of artisanal fisheries resources were established using data from INDP- National Institute for Fisheries Development (now IMAR- Institute of the Sea). Socio-ecological indicators were identified and data collected via questionnaire surveys to set up the baselines in Y1 (Annexed report A8). The field tests with local fishers were conducted in Rincão and Porto Mosquito villages. Fishing techniques, effort, catch composition and weight were recorded. The preliminary report is available upon request. Over 300 people, including Uni-CV students, ECOCV staff, community members including schoolchildren and local scouts, local fishers have been trained in participatory marine biodiversity monitoring with the focus on marine megafauna (Annex A7; whale and dolphin surveys and marine birds);

A7. ECOCV (2020). *Código de Conduta. Encontro e observação de golfinhos e baleias em Cabo Verde. (Code of Conduct for the observation of whales and dolphin in Cabo Verde)*

The intense communication was conducted with a wide range of stakeholders to convey the messages from the value of local and global biodiversity to negative anthropogenic impacts (See 3.1 for more details). The participation and contribution was communicated on the project social media site: Facebook @raizazulcabo Verde. Local fishers and travellers that join to test eco-tours are in the process of learning participatory monitoring of marine megafauna. Links with income diversification are reported under Output 4.

Output 3. The first subaquatic biodiversity research expedition was successfully completed in Baia do Inferno in October 2019. The baselines data is provided in the annexed report A2 with the complementary photo/video materials and press publications that are available upon request and summarised in Table 2 of this report. The data was complemented by the socio-ecological surveys (see Annexed report A8) and the first geological survey (report is available upon

request). The baseline data show high occurrence of commercially valuable fish species, lobsters, endemic corals and molluscs; the bay serves as important grounds for artisanal fishers. Geological survey linked the bay and the coastal zone, including 5 craters, to the structural formation of the Santiago Island (Annex 9). The first round of the MPA planning meetings was completed with more advancement in the village of Rincao.

Results of the socio-ecological surveys, that included the perception of MPAs among local populations were presented and discussed the target village of Rincao. The meeting in Porto Mosquito was postponed to Y2 due to the COVID-19 national measures. MPA talks with the national and municipal stakeholders are in progress ahead of schedule. We use all available opportunities to introduce the concept and concrete area designation of the Baia do Inferno as the first MPA in Santiago, to the national and municipal government (representatives of target Municipalities, National Directorate of Environment, National Sea Institute). Verbal approval and support were communicated by all these institutions.

Output 4.

The overall evaluation of the progress towards the new eco-network in Santiago Island shows great potential. Income generating activities are already in progress with highly positive results and feedback from both community participants and travellers. Initial meeting with the target communities showed evidence of distinctiveness on socio-economic and environmental levels. As a result, the approach of collaboration and targets needed to be specified for each project village (more info in the section 9 - Lessons Learnt).

Baseline surveys to assess local services were completed. The annexed report A1 details the results and prospects for further development. Other available evidence includes structured information from community meetings and field work, including photos, videos, maps of resources: cultural, biological, historic. To assess ecological footprint surveys were conducted via questionnaires and field work. Eco-village score card that includes various indicators (waste, biodiversity, ecotourism, income generation) has been developed. Annexed reports A1 to A5 provide baseline data on the level of solid waste pollution and current waste management practices in the target communities. Annexed reports A2 and A8 provide baseline on the biodiversity and artisanal fisheries (socio-ecological assessment).

Training modules on cetacean strandings that includes section on consumption of dolphin meat/zoonoses have been developed and communicated to São Francisco community members and of the main national stakeholders. Bio-calendar was produced to share some of the fisheries management policies in more user-friendly way. Training modules on marine conservation, waste management, eco-tourism, communications, English, first aid, food preparation, safety and hygiene have been developed and implemented. Some of the trainings have to be postponed to Y2 due to the COVID-19 national emergency policy.

Ahead of schedule and using opportunity provided by our partners in Italy, between April 2019 and January 2020 we ran test eco-tours in Porto Mosquito where 26 travellers from Italy (via our Italian partner Viaggi&Miraggi) received first local-eco-marine and cultural experience. Their feedback analysis is available upon request.

Based on the baseline of community mapping (services and resources) the decision has been made to start development of 3 eco-centres instead of one as initially planned: in Gouveia, São Francisco and Porto Rincão (photos are available to show the preparation in progress). The development is within the available budget and further funding and partnerships are sought to support the final product. Info boards and panels have been prepared to support the development of eco-network. Annexed report A1 provides detailed description of results in Y1 to achieved the Output 4.

3.3 Progress towards the project Outcome

Outcome. A reduced negative environmental footprint, an increased value of biodiversity and enhanced quality of life within coastal communities on the capital island of Santiago, Cabo Verde.

Overall the project is progressing as planned with several activities started ahead of schedule. The project team and partners are utilizing a flexible approach and are able to re-strategize

based on the local needs and opportunities. The progress is being successfully measured using the developed indicators.

During the Y1 of the project implementation the critical baselines have been established on the use and the relative state of marine and coastal biodiversity and resources in the project area. The data were also gathered on the perception and awareness of target community members on the value of the resources they are using and potential benefits and restrictions of protected areas. The annexed reports A2 and A8 are provided as means of verification. The baseline was established with regards to domestic waste management in the four target communities. During the field research surveys (see Annexed report A3) and communal clean up campaigns in Y1 over 1000kg of waste has been removed from the coastal zone in the project area. The small-scale practical recycling training started in project villages: households in Porto Rincão (glass) and São Francisco (plastic) and school in Sao Francisco (paper and plastic).

Significant progress has been made towards the establishment of the first MPA in Santiago Island- Baía do Inferno. Baseline surveys almost completed (Annexed report A2 and A8); community meetings started, draft delimitation prepared and presented at the national level (sections 3.1-3.2 for more details). The development of the eco-network is proving to be an effective and balanced approach that allows to combine income generating ventures with the participatory monitoring of biodiversity while raising value of local culture and history (Annexed report A1 and supplements available upon request).

3.4 Monitoring of assumptions

Outcome

0.1-0.2 - fully valid; all the activities implemented in participatory manner including biodiversity monitoring and domestic waste surveys and management measures (Annexed reports A3, A8 and supplements available upon request)

0.3 The process has started with more progress in the village of Rincão. Annexed report A8 provides data on the local perception of MPAs with the majority of community members supporting the process. All national and municipal stakeholders expressed full support.

0.4 Fully valid. Progress report A1 is attached. Community meetings and training video/photo materials and lists of participation available upon request.

Outputs

1.1-1.4 Fully valid. Reports A3-A5 provide evidence of the progress; Activities are progressing as planned. Strong support was already shown by the Municipality of Santa Catarina for the installation of glass recycling machine and development of the community-owned management process. Community members have already started recycling glass on small scale and awaiting the start of the full operation of the machine in Y2 (delayed due to COVID-19); São Francisco community and local school are testing paper and plastic recycling since December 2019 and learning while doing it.

2.1 Valid. The baselines assessment surveys have been completed (Annex A8) **2.2-2.3 Valid** to date. The situation will be more evident after further experimentation with fishing techniques in Y2.

3.1 Valid. The first marine research expedition in Baía do Inferno was completed (Annex A2); socio-ecological data was collected via questionnaire surveys. **3.2** Both target communities Rincão and Porto Mosquito willingly participate in the process. More engagement was received in Rincão. To address this, community consultation meeting will be conducted in Q1 Y2 to identify more effective means of engagement. **3.4** n/a at this stage

4.1- 4.4 Fully valid. Target communities actively participated in project activities, whenever possible taking part in baseline data collection. Some families are already trialling to recycle domestic waste. Partnership initiated with the Association of Travel Agencies of Cabo Verde. Part of the eco-tours already tested by Italian travellers via partner ViaggieMiraggi.

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

The impact of the project is ‘A novel eco-village approach is developed to boost practical capacity of cabo verdeans for sustainable use and conservation of marine and coastal resources on the capital island of Santiago’.

Being small island developing country Cabo Verde faces daily challenges from global pressures such as climate change to local ones such as increasing pollution, growing consumption of marine resources and lack of basic waste recycling measures. Santiago island inhabits half of the population of the country with the majority living in the Municipality of Praia that falls within our project area.

Our project combines support to local livelihoods from individual to communal levels by developing new income generating activities. This is done by employing sustainable tourism one of the most rapidly growing industries in the country. Value of local habitats and biodiversity reinforced by local culture and history are added as essential components to the eco-network model. One year in the implementation and parts of the network already generated income to local families. Benefits to local ecosystems will require more time to be estimated based on the baselines collected in Y1. End of Y2 will show the effectiveness of our strategies.

More specific contributions of the project to the poverty alleviation, SDG's and contribution to the conservation of biodiversity on the global level are under the following **sections 4, 5 and 6**.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

Goal 1 Target 1.1, 1.2, 1.5 and Goal 5 Target 5.1

Project livelihood diversification activities target households with financial challenges. The project links the community venture with the promotion of the eco-network as a new tourist destination in Cabo Verde. The eco-network structure is in development but for example part Porto Mosquito- Baía do Inferno has already started generating additional income to local families through test-eco tours. Families in Rincão hosted marine expedition to Baía do Inferno and benefit financially from the services provided. In addition, glass recycling machine that is already installed in Rincão will produce income that will be distributed to address community needs.

Goal 12 Targets 12.2 and 12.5 One of the project objectives directly address waste management gaps in the rural locations of Santiago Island with specifically developed actions to introduce domestic waste reduction, reuse or recycling strategies in the four coastal villages. The success could be replicated on the municipal and island level, or other islands of the archipelago. The domestic waste management is already in the testing phase in the villages of Rincão and São Francisco; glass recycling machine has been installed in Rincão and first recycled glass sand produced and tested by community members. Further development was stopped in March due to the COVID 19 measures.

Goal 14 Targets 14.1 Reduction of marine pollution especially originating from land linked to waste assessment in all four target villages; beach clean-up campaign in São Francisco; installation of glass recycling machine in Rincão; 14.2 sustainable management of marine ecosystems linked to the establishment of the protected area; 14.4 end of destructive fishing practices linked to the established baseline on the impact of fishing practices and follow up actions to address this; 14.5 contribute to the conservation of at least 10% of coastal and marine areas links to the establishment of the first marine and coastal protected area in the island is Santiago which is in full progress.

Goal 15 Target 15.1

Illegal sand extraction in the coastal zone of Santiago Island continues to be a burning issue, including the three project villages: Gouveia, Rincão and Porto Mosquito. Most of the sand is sold for construction locally or in other municipalities. The ongoing removal of sand from the upper layer of soil not only destructs the beaches, but also facilitates the infiltration of salty water from the sea into the sub terrain aqua-ducts, lands of nearby farms. With the installation

of the glass recycling machine in Rincão and production of 'legal sand' we aim to minimize such an anthropogenic impact to coastal ecosystems, and if proves to be successful in Y3 of the project it will be replicated in at least one more project village.

5. Project support to the Conventions, Treaties or Agreements

National Directorate of Environment (DNA) is the partner and collaborator of the project. CBD, CITES and CMS focal points for Cabo Verde work for DNA. The project contributes to CBD Articles: (1, 6, 7, 8, 10, 11, 12, 13, 17, 21, 22). More specifically: [Article 6](#) - measures for to boost national conservation strategies and sustainable use of marine and coastal resources are being develop under the activities of outputs 2, 3 and 4 ; [Article 7](#)- baselines established and participatory monitoring is in development under the Outputs 2 and 4; [Article 8](#) – in situ conservation of local biodiversity (Annexed reports A2 and A8), [Article 14](#) - impact assessment and strategies to minimizing adverse impacts under the outputs 1, 2 and 3 (Annexed reports A3, A4, A5 and A8)

The project contributes to Aichi Biodiversity Targets (1, 2, 4, 6, 11, 15, 17, 18). The project approach encompasses the combination of strategies that directly links value of marine and coastal biodiversity with the sustainable use and income generating activities. Targeted communication campaign has already started in Y1 and will be intensified in Y2 through the installation of info panels; community training program, and field tests to improve artisanal fishing practices.

Livelihood diversification activities (eco-network development/ profitable domestic waste recycling) work to improve status of natural resources will directly contribute to the CBD's thematic programme on island biodiversity, which emphasises the link between the loss of biodiversity, poverty and sustainable development. This project enhances efforts to reduce disturbance and prey depletion and conserve critical habitats of species listed in [CMS Appendix I and II](#): Loggerhead turtles, oceanic manta rays, humpback whales, sperm whales; and [CITES Appendix II](#): reef and oceanic manta rays, melon-headed whales, and humpback whales.

All the above aligns with the commitment of the government of Cabo Verde to contribute towards the achievement of these goals.

6. Project support to poverty alleviation

The main goal of the project is to build a self-sustaining socio-ecological structure in the form of an eco-network. This will generate a full spectrum of benefits to the local marine and costal ecosystems and target communities that use the services of these ecosystems. The direct beneficiaries are the four rural communities of Gouveia, Porto Mosquito, Porto Rincão and São Francisco (total population 2,400 over 500 households). More than half of these households are led by women/ often single mothers.

The glass recycling machine in Rincão has been installed and will be linked to the community management. Several community members have already suggested the training of members of the most disadvantaged families in Rincão to operate the machines and potentially earn supplemental income. This will be confirmed after the planning meetings. Project activities have contributed to household income in 3 target villages through eco-tours; research; support to project logistics and meetings. Capacity is being built through the engagement of over 30 participants that are actively involved in community guide training. Training sessions on the First Aid and Food preparation safety and Hygiene benefitted to over 400 individuals (directly and indirectly to family members of the trainees) with more than 80% women. Following our encouragement in São Francisco, some women started developing idea of small-scale local business ventures and the project will provide necessary support for the implementation, either directly or through our partners.

Informal education and training sometimes is an overlooked factor in poverty reduction and economic development, but training opportunities and approaches have the potential to enhance individual, community and society wellbeing and prosperity. We therefore believe that, beyond the people who will benefit directly from the training provided by us, each of the participants can, during these meetings, increase their knowledge, develop new skills and

broaden their horizons: conditions that favour and promote change of perspective and the improvement of one's living conditions.

Some of the feedback from our project participants as translated from cabo verdean language:

“thanks for this training, I learnt that hygiene is very important for the health and safety of people, now I am ready to better receive people in my kiosk” Lucia A. age 42, Porto Mosquito.

“I am happy to have participated in this training because I learnt new things and today for the first time in my life, I have tasted vegetables” Lucy L., 18, Porto Mosquito

“I enjoyed this training, today when I go home, I try to make bread with pumpkin seeds ... let's see if someone buys it tomorrow” Lilika, 48, Gouveia.

“this story of protecting the sea, I like it !!!” Rikedy, 9 (during the activity carried out with the children of the school of Porto Mosquito)

Y1 was mainly focused on gathering baseline biodiversity data in the target sites. Over the next two years, set of actions will be introduced (Outputs 1-3) to directly minimise negative anthropogenic impacts through the reduced coastal pollution and more sustainable fishing practices. Indicators developed within Output 2 have measured aspects of the social resilience of fishers and fish sellers within the target communities to respond to economic and environmental challenges. This is an important additional element of poverty alleviation the project addresses, and will continue to be assessed in Y2 and Y3.

7. Consideration of gender equality issues

One of our project goals is to reduce women's economic reliance and psychological dependence on men/husbands. Women often accept abusive behaviour by male companions due to the lack of alternative solutions to support their children.

To break this cycle, we seek to involve as many women as possible in each community in waste recycling operations, eco-centre/eco-village management as a path for self-empowerment. A woman is the main parent in Cabo Verdean households that influence children's development, especially in the villages. Strengthening confidence, capacity and independence of that parent directly influences another 4-6 members of the community.

Output 4 and activities specifically target integration of women, single mothers/heads of households. In each community a local woman joined us as a contact person responsible for logistics and coordination of activities on site. Twenty-five local women joined the program of community (tourist) guides, some of them already are exploring options to start small scale business linked to selling street food; opening a kiosk, baking local bread.

In Rincão, families led by women volunteered to test glass recycling and learn to host international travellers and national and international researchers. In Gouveia we started a partnership with women's cooperative 'Sulada' to restart the production of artisanal crafts and encourage local female youth to join and learn new skills in the production of tradition fabric 'pano di terra' (Annex A6); In Porto Mosquito a group of local women collaborates with our partner 'PoupArt Design' in production of crafts from recycled plastic found on the beach, and already generated income to support their children. While fishermen are learning to conduct eco-tours at sea (Porto Mosquito), woman led family hosted the same international travellers preparing traditional meals (photos, videos, travellers' feedback available upon request). In Rincão, women led household hosted the marine exploration expedition leading to a very strong partnership with our project (The female boat owner named her new artisanal fishing boat 'Raiz Azul' after the acronym of our project).

Another vulnerable group is school drop-outs (majority young males) locally called “nem nem” (meaning 'no school, no work'). The participatory biodiversity monitoring training offers opportunities to join project research activities and enhance skills, opportunities are already open to learn the glass recycling in Rincão; community guide training is in full progress in 3 project villages. Following completion, this will increase the opportunity to get involved in the local tourism activities.

In addition, active female participation is observed in all aspects of the project from coordination to implementation including project lead organization and main partners.

8. Monitoring and evaluation

Overall project progress was reviewed quarterly in project team meetings and fed back to stakeholders either during the direct meetings or via emails/social media sites/ phone and skype calls. This allowed us to address challenges and re-plan activities in real time. Sections 3.1, 3.2 and 3.3 and Annex 1 provide detailed information on the progress towards the achievement of the Outcome. The M&E plan remains unchanged. The Outcome indicators identified at the beginning of the project remain valid.

Outcome Indicator 1

In Y1 Uni-CV, ECOCV in collaboration with Bangor University and target community members conducted planning meetings and field surveys to identify the most appropriate indicators for the long-term monitoring of environmental, artisanal fisheries, environmental awareness and socio-economic resources in the project area (Annex A8).

Outcome Indicator 2

The baseline was collected and analysed using quantitative indicators such as: amount and composition of domestic waste; location of disposal sites (size and number/per target village); questionnaires were developed to sample households (Annex A3). The process will be repeated at the end of Y2 and of Y3 of the project to assess the progress. Uni-CV conducted the first analysis of microplastics prevalence in soil in target villages (São Francisco, Rincão and Porto Mosquito) and fish stomachs in Rincão (Annexes A4, A5).

Outcome Indicator 3

The project team conducted surveys in the two communities Port Mosquito and Port Rincão and control site outside the project area Ribeira da Barca, to assess the level of understanding about MPAs, access to information and collected feedback on participatory processes. Data was disaggregated by gender, age and occupation (Annex A8).

Outcome Indicator 4

The eco-village score card was developed to follow the progress of: level of cleanliness/ waste management (household/community level); attitude towards/understanding value of coastal and marine resources (qualitative data); locally available income options and income per household (min-max); average number of tourists/local services/produce/ income generated. The baseline data will be summarised by the end Q1 Y2 and the progress will be assessed at the end of Y2 and Y3.

9. Lessons learnt

The collaborative approach with the involvement of numerous partners in different stages of the implementation has proved to be effective. Despite the later than expected start (due to the administrative/ fund transfer delays), we managed to implement on time over 95% of planned activities (some cancellations in March 2020 due to COVID 19 measures). Thanks to the flexible and adaptive project management and effective use of all the opportunities we started four activities ahead of schedule (see Annex 1).

One of the challenges arose due to the extent of the project site (over 250km²) and travel/activity time effort in the four target communities. The direct presence in communities was less than we anticipated at the start of the project. Thus, after the M&E meeting in March, we decided to divide the work between the main partners, with the Uni-CV leading implementation of activities under the Output 2&3, and ECOCV and partners under Outputs

1&4. The strategy will be revised at the end of Q2 Y2 and, if proves to be effective, will continue till the end of Y2.

The noticeable differences and uniqueness of all four project communities was a discovery. Even the villages of Gouveia, Porto Mosquito and Porto Rincão living in similar environmental conditions, separated from each other no more than 5-15 km and, what would seem facing similar external challenges, showed a very different social structure, cohesiveness, level of awareness and curiosity. Thus, in Y1 2-3 months into the implementation we had to re-strategize and tailor the set of activities to each Eco-village under development. Through community consultations, field work and personal informal interviews we identified the strength of each target village and, based on that, created a specific theme for each one. In addition, in Y2 we aim to dedicate more effort to involve the “quiet” members of each community that often are the ones with more struggles and a lack of confidence to communicate their needs or explore available opportunities to build new skills.

From the technical point of the view, there were challenges in acquiring research/ safety equipment. Good quality items need to be bought overseas while many suppliers do not deliver to Cabo Verde at the economy rates or at all. Most of Y1 materials were delivered and donated either through project partners or personal connections. In addition to this, other potential options will be explored in Y2 to speed up the process.

Public and private sector have different operating rules, however obvious it may seem it is important that the mechanisms that regulate each institution are declared and understood since the beginning, in order to organize the work in the most functional way possible, for each partner and for the success of the project. It is the people come together that can make the project a success; successful collaborations are built on respect, trusting relations and durable collaboration between communities and all the partners involved.

In summary, the key strategies to the effective and timely implementation we have learned so far are flexibility, adaptability and creativity in dealing with arising challenges.

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

N/A

11. Other comments on progress not covered elsewhere

Overall the project progresses really well. Positive feedback from target communities and target stakeholders encourages us to continue with the planned activities. Some of the challenges were discussed in **section 9**.

12. Sustainability and legacy

With the successful implementation of this project, we aim to demonstrate that locally led actions can produce concrete long-term benefits for rural marginalised communities while strengthening the resilience of marine and coastal ecosystems in Cabo Verde. The project encompasses the area of approximately 250 km² (150 km² marine and 100 km² terrestrial), extending over the three municipalities. The project progress was regularly communicated via social media sites; local TV, radio, magazines covering various aspects from livelihood enhancement to biodiversity surveys (see Table 2). Internationally, the project was presented in Brussels during the First Workshop of the WP6 sub-multi-stakeholder platform for ocean citizen awareness and literacy, framed in the All Atlantic Cooperation for Ocean Research and innovation (AANChOR). The Eco-village project was included in the final report of existing initiatives in ocean citizen awareness and literacy program, covering North and South Atlantic regions, with the potential to scaled-up at transatlantic level. The project was also presented at the Workshop “Biodiversity of Macaronesia” on board the ship ‘Sagres’ in capital Praia.

The direct beneficiaries of the project are the four target communities of Gouveia, Porto Mosquito, Porto Rincão and São Francisco (total population 2,400 over 500 households). More than half of these households are led by women/ often single mothers. In Y1 the Project started a training program linked to eco-citizenship and community tour guiding to build capacity for the

operation of the eco-network that is currently development. Over 500 people benefited so far of which almost 300 are local women. Uni-CV and partner staff improved capacity in research and project management (around 25 staff that joined the project at various stages; some on a voluntary basis). The installation of glass recycling machine in Rincão generated noticeable interest when community members independently started discussing the management and distribution of potential benefits.

Overall the exit strategy has not changed. The focus remains on the cost-efficiency, quality and sustainability in the post project stage. The plastic and glass recycling machines will be a viable source to supplement income in the post-project phase. Part of the income generated by the eco-network will be reinvested to address community challenges. Partnerships with national and international tourism agencies initiated in Y1 will be strengthened to create an eco-network as a self-sufficient entity. In Y1 the process started to incorporate the participatory biodiversity monitoring into the eco-network operation, as the most feasible solution for long-term operation.

The long-term commitment of project partners to co-manage the eco-network continues to be unchanged. Thus, the expertise, refresher training and the quality of the operation in the post-project phase is assured.

13. Darwin identity

The Eco-village project stands as an independent project with the contribution/co-funding of other projects implemented by the lead organization and partners. All presentations, videos training and communication materials (digital and printed) included Darwin Initiative (DI) logo and in many cases the acknowledgement as the funder. Project roll up was designed and printed in Y1 to be used for more effective communication in community meetings. During the meetings with target communities and national/ municipal stakeholders, national press DI is mentioned as the funder of the activities in all relevant discussions. All the posts on project social media site Facebook @raizazulcaboverde and the link to DI page is included or the DI is listed in the FB blog. (presentations are available upon request; links to publications are given in Table 2). Numbers of FB posts were shared by project partners and followers in Cabo Verde and overseas. We also contributed to the DI Newsletter - Planet Plastic in August 2019.

14. Safeguarding

UNICV policy works to ensure that its research, education and conservation activities do not disadvantage or undermine poor, vulnerable or marginalised people who are dependent upon, or live adjacent to, natural resources, and wherever possible will seek to conserve biodiversity in ways that enhance their wellbeing. One of our objectives is to promote integration of human rights in community development, research and conservation for more sustainable future of Cabo Verde. UNICV, being one of the key education and research institutions in the country believes conservation solutions lie in local hands and has a policy of promoting participation of, and developing leadership amongst local stakeholders. UNICV supports use of the sustainable livelihoods approach as a theoretical framework and a set of principles to understand the reality and complexity of people's lives and livelihoods. UNICV supports growth of the leadership of the eco-network in development and its co-management team and facilitates active participation of local community groups in the enhancement of well-being and conservation initiatives on the island.

It is the policy of UNICV to ensure the health, safety and welfare of all employees working for the organisation and any other persons who may be affected by its undertakings. The activities are implemented following the national laws with the required permits and licences to undertake necessary activities be it education, research or management. The policy is outline in the new statute of the organization.

http://www.unicv.edu.cv/Normativos/Novos_Estatutos_da_Universidade_de_Cabo_-.pdf

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)

Project (indicative) since last annual report	spend since last	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)					
Consultancy costs					
Overhead Costs					
Travel and subsistence					
Operating Costs					
Capital items (see below)					
Monitoring & Evaluation (M&E)					
Others (see below)					
TOTAL					

A Change Request-CR was submitted and was accepted, as a consequence of the contingency plan to address COVID-19 pandemic by national government of the Republic of Cabo Verde as a consequence it was not possible to finish some activities planned for Q4 Y1. We submit the CR following amount to be transferred to Year 2 budget so that we could finish the planned activities as per logframe.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Impact</p> <p>A novel eco-village approach is developed to boost practical capacity of cabo verdeans for sustainable use and conservation of marine and coastal resources on the capital island of Santiago.</p>		<p>Santiago island inhabits half of the population of the country with the majority living in the Municipality of Praia that falls within our project area. Our project combines support to local livelihoods from individual to communal levels by developing new income generating activities. This is done by employing sustainable tourism one of the most rapidly growing industries in the country. Value of local habitats and biodiversity reinforced by local culture and history are added as essential components to the eco-network model. Y1 in the implementation and parts of the network already generated income to local families. Benefits to local ecosystems will require more time to be estimated based on the baselines collected in Y1. End of Y2 will show the effectiveness of our strategies.</p> <p>More specific contributions of the project to the poverty alleviation, SDG's and contribution to the conservation of biodiversity on the global level are under the sections 4, 5 and 6.</p>	
<p>Outcome</p> <p>A reduced negative environmental footprint, an increased value of biodiversity and enhanced quality of life within coastal communities on the capital island of Santiago, Cabo Verde</p>	<p>(0.1 The overuse of commercial marine species reduced and value of non commercial species and habitats increased by at least 30% from the baseline established at the start of the project in the target inshore zones of the project area by the end of Y3.</p> <p>0.2 General waste and macroplastic waste is managed (reused, reduced, recycled) and treated in at least 30% of households in four coastal villages by the end of the project from</p>	<p>0.1 Planning meetings and field surveys conducted and identified the most appropriate indicators for the long-term monitoring of biodiversity, artisanal fisheries, environmental awareness and socio-economic resources in the project area (Annex A8 and supplements upon request).</p> <p>0.2 The baseline was collected and analysed using quantitative indicators such as: amount and composition of domestic waste; location of disposal sites (size and number/per target village); questionnaire survey conducted to assess waste disposal and knowledge of recycling on the household level (Annex A3). Analysis of microplastics prevalence in soil in</p>	<p>Practical trials will be intensified to test potential changes in the locally used fishing techniques to reduce catch of undersized or threatened fish species; tailored approach will be developed to address direct catch and by-catch of elasmobranch species. Overall biodiversity indicators need to be specified per target monitoring area.</p> <p>Complete microplastic assessment in fish and if methodology proves acceptable human faeces. Progress with the operation of</p>

	<p>the current baseline of 0%.</p> <p>0.3 Marine and coastal area of at least 20 km² under national and/or local level of protection increased on Santiago Island from the current baseline of 0%.</p> <p>0.4 Income generating eco tourism network created linking at least four marginalised rural villages to socioeconomically benefit vulnerable groups (fishermen, fisherwomen, school dropouts, single mothers, heads of the poorest households), enhance and secure value of local biodiversity by the end of the project.</p>	<p>target villages (São Francisco, Rincão and P.Mosquito) and fish stomachs in Rincão (Annexes A4, A5) was completed.</p> <p>0.3 Surveys completed in the two communities Port Mosquito and Port Rincão and control site outside the project area Ribeira da Barca, to assess the level of understanding about MPAs, access to information and collected feedback on participatory processes. (Annex A8 and supplemental databases available upon request)</p> <p>0.4 The eco-village score card was developed to follow the progress of: waste management (household/community level); attitude towards value of marine resources; locally available income options; number of tourists/local services/produce/ income generated. The baseline data will be entered by the Q1 Y2 and the progress will be assessed at the end of Y2 and Y3.</p>	<p>glass and plastic recycling machines.</p> <p>Complete community consultations and develop the new MPA establishment proposal and submit to the National Directorate of Environment.</p> <p>Progress with the community guide training and mapping/ installation of the eco-trails; complete development of at least 2 eco-centres; start developing eco-network management model.</p>
<p>Output 1. General and plastic waste management and income generating system developed and adopted in the four coastal villages by the end of the project.</p>	<p>1.1 Locally adapted set of actions to treat and reuse/recycle waste produced on the village level developed by Q2 Y2 and tested in the four target villages by the end of the project</p> <p>1.2 Intensive awareness campaign and practical training is conducted in the four target villages and the municipal level to speed up the uptake of waste management system by the Q1 Y3</p> <p>1.3 Links and partnerships with national and international companies developed for the installation of the recycling system for macroplastics by Q4 Y2</p> <p>1.4 Target zones and biodiversity (marine and coastal) in the project site assessed for the microplastic contamination and relevant strategies to address the issue developed by Q2 Y2</p>	<p>1.1 Domestic waste assessment was conducted in the 4 target communities: São Francisco; Gouveia, Porto Mosquito and Porto Rincão. Evidence provided in the attached Annex A3. Drone/ aerial surveys were run to aid the mapping of the waste/trash spread in three communities. Supplemental photos and videos are available upon request. The maps were included in the reports. Glass recycling machine was produced in Cabo Verde and installed in the community of Porto Rincão. The sand produced by recycling glass can be sold to construction companies. The plastic recycling machine is in the development and will be installed in São Francisco in Y2.</p> <p>1.2 The Eco-citizenship training program is in progress with modules on glass, paper, plastic impacts and solutions. Info materials Annex A6 produced for Rincão; info bins and boards produced for São Francisco, including numerous photos and videos from training sessions (available upon request). Local Communities and municipal government fully support the process.</p> <p>1.3 The partnership has been initiated with Cavibel, the national representative of Coca Cola in Cabo Verde. Joint activity for the installation of recycling center in São Francisco is planned for Y2. The project provides supports for their environmental awareness program (meeting minutes as evidence available)</p> <p>1.4 Microplastic assessment surveys were conducted for the sediment and fish. Annexed reports A4 and A5 detail the first results.</p>	

<p>Activity 1.1 Run baseline survey and planning meetings with target community members to establish baseline for the waste disposal methods and prioritise reuse/recycle/reduction measures and locations.</p>		<p>Meetings and baseline surveys completed. Annexed report A3 details the process and results. Supplement photos and videos available upon request. Plastic recycling will be prioritized in São Francisco; glass recycling in Porto Rincão.</p>	<p>The activity is completed. But funding allows to produce at least one more recycling machine in Y3 and install in Porto Mosquito or Gouveia.TBC</p>
<p>Activity 1.2 Test the identified measures with the selected households, evaluate and replicate on the village level</p>		<p>The successful tests were completed with the selected families in São Francisco - including the local school and Porto Rincão. In Porto Mosquito the project will support the activities started by the local Municipality and UN</p>	<p>With the installation of the recycling machines in Rincão and later in Y2 in São Francisco the recycling practices will be introduced to at least 30% of local families in Y2 in each village and schools, restaurants, community centres and shops.</p>
<p>1.3 Run waste disposal awareness campaign “Nha lixu e di meu” (my rubbish is my responsibility) in collaboration with the civil movement ‘350 Cabo Verde’</p>		<p>Participation in national and local awareness campaign focused on the marine and coastal pollution: community group in Alto Gloria, the National Museum of the Archeology; with the EU Delegation in Cabo Verde beach cleaning campaign; beach clean up in Sao Francisco with local scouts; We prepared the blog for the Darwin Initiative newsletter introducing our activities linked to waste management. Regular posts on the topic are communicated on the partner ECOCV Facebook page and website, and the project site Raiz Azul (@raizazulcaboverde). Eco-citizenship program was introduced to target communities that focuses on personal and communal health and recycling.</p>	<p>Solutions to reduce domestic waste and start recycling from individual to community levels will be continued and scaled up. Municipality of Santa Catarina shows great interest and support; radio and TV program are planned to communicate the results on the national level.</p>
<p>Activity 1.4 Propose social and environmental responsibility programme for the major plastic producers in Cabo Verde to co- fund/co-manage plastic recycling machines for the target villages.</p>		<p>Partnership started with Cavibel - national representative of Coca Cola company in Cabo Verde. Joint project was discussed to run the joint project in São Francisco.</p>	<p>The wide scale clean campaign and the installation of recycling center us planned for Q2 Y2 in São Francisco with the support of Cavibel.</p> <p>Meetings with Tecnicil, another plastic packaging producer in Cabo Verde</p>

<p>Activity 1.5 In collaboration with CERMI and LEC adjust prototypes of plastic recycling machines for energetically sustainable use, train personnel in operation and management.</p>	<p>Active collaboration with CERMI initiated. They installed the glass recycling machine and electrical system in Rincão. CERMI will build plastic recycling machines for Sao Francisco. Order has already been placed.</p>	<p>CERMI will produce plastic recycling machines and will incorporated into their training program of technicians/interns. CERMI will give training to the local community members on the use of machines. UNICV in collaboration with LEC will analyse the glass sand produced in Rincão and test the potential for the production of construction blocks and other materials.</p>
<p>Activity 1.6 Using adapted methodologies, test samples of sand, water, invertebrates, fish, domestic animal/human faeces in the selected locations to test prevalence of micro plastic.</p>	<p>Sand and fish stomachs were tested for the prevalence of microplastics. Annexed reports A4 and A5 summarise the results.</p>	<p>Tests are planned for human feces and fish muscles and stomachs from the coastal area of Porto Mosquito and Rincão.</p>
<p>Activity 1.7 Run the first national awareness campaign to communicate the results and highlight impacts and solutions for plastic</p>	<p>Ahead of schedule. Through the participation in the national events with EU, UN, Municipality of Praia we already introduced some of the impacts and potential solutions for more sustainable plastic waste management.</p>	<p>The campaign is planned in Q4 of Y2</p>
<p>Output . 2 Stakeholders and target community members increased knowledge on value of local marine biodiversity and have developed a set of practical skills for more sustainable use of local ecosystem services by the end of the project.</p>	<p>2.1 Baseline of the artisanal fisheries resources and non-commercial indicator species and habitats established by Q4 Y1, impacts and indicators for long term monitoring finalised by Q3 of Y3 for the target zones in the project area. 2.2 Alternative fishing techniques tested and impact reduction on local fish populations estimated by Q4 Y2. 2.3 Participatory monitoring and income diversification (see Output 4) introduced to enhance self-management of fishing practices and reduce pressure on overexploited marine resources in the target fishing communities by Q2 of the year 3.</p>	<p>2.1 Baselines of artisanal fisheries resources were established using data from INDP- (now IMAR- Institute of the Sea). Socio-ecological indicators were identified and data collected via questionnaire surveys to set up the baselines in Y1 (Annexed report A8). 2.2. The field tests with local fishers were conducted in Rincão and Porto Mosquito villages. Fishing techniques, effort, catch composition and weight were recorded. The preliminary report is available upon request. 2.3 Number of Uni-CV students, ECOCV staff, community members including schoolchildren and local scouts, local fishers have been trained in participatory marine biodiversity monitoring with the focus on marine megafauna (Annex A7; ID guides and data sheets available upon request); The intense communication was conducted with a wide range of stakeholders to convey the messages from value of local and global biodiversity to negative anthropogenic impacts (See 3.1 for more details) The participation and contribution was communicated on the project social media site: Facebook @raizazulcabo Verde. In addition, during the trial eco-tours with the local artisanal fishers, the concept of collecting data on marine megafauna was introduced to both local fishers and travelers. Links with income diversification are reported under Output 4.</p>

<p>Activity 2.1 Use INDP, DGRM, DNA data, artisanal fisher knowledge and field work surveys to establish the baseline and long-term monitoring indicators in partnership with Bangor University</p>	<p>Meetings were held with IMAR- Institute of the Sea). Data received on artisanal fisheries in Gouveia, Rincão and Porto Mosquito villages. Dr. Ronan Roche (Bangor University) produced the list of potential indicators (biological, socio-economic). This information was presented at the national workshop to assess the gaps in marine and coastal zones, in Sal Island. The workshop was organised to develop relevant indicators. Part of the indicators were incorporated into the socio-ecological questionnaires to assess the viability and challenges of artisanal fisheries in target fishing villages and the control site outside the project area (Annex A8). Number of Uni-CV students and local fishers have been trained in participatory marine biodiversity monitoring with the focus on marine megafauna.</p>	<p>Permanent monitoring sites adjacent to each target village will be finalised; biodiversity indicators (including the ones linked to the resilience to the climate change) will be listed for each site and relevant methodology prepared.</p>
<p>Activity 2.2 Evaluate qualitative and quantitative data to establish the projection and impact of project actions</p>	<p>Starts in Y2</p>	<p>Organise open workshop to present project progress in Y1. Build a potential progress model and identify new actions (if any) to make the overall process more functional in a long term</p>
<p>Activity 2.3 Develop targeted campaign to communicate the value of the resilient marine ecosystem to the coastal communities and decision makers.</p>	<p>Ahead of schedule. Taking opportunities the project team and partners participated in awareness raising events at the Portuguese school in Praia, National Museum of Archaeology, local community gathering in Alto Gloria; beach clean up event at Quebra Canela (organised by the EU delegation in Cabo Verde); private school EII-CV; celebration of the international children's day in Porto Mosquito (organised by the target Municipality of Ribeira Grande de Santiago). All the activities included introduction to the global and national marine and coastal biodiversity; threats and potential solutions. With an invitation of NGO ADAD/PRCM we delivered presentations at the University Jean Piaget in Praia and MAA Delegation in Tarrafal on the problems of coastal development on marine megafauna and</p>	<p>Having the baseline data and set of monitoring indicators more communication materials will be produced (educational videos; interviews to the radio; practical learning sessions with local communities with the focus on school children). All the opportunities will be explored to participate in local and national events linked to nature conservation and awareness raising. Project and partner social media sites will continue be used as an effective tool to share project progress and targeted messages.</p>

	<p>communities. With an invitation from the Ministry of Maritime Economy, in partnership with Civil movement 350 Cabo Verde, Poupart Design, we also participated in the celebration of the Ocean Day (presentation on marine biodiversity and conservation). For communication see: Facebook @raizazulcabo Verde</p>	
<p>Activity 2.4 Introduce tailor made system for the self-monitoring of artisanal fishing catch, biodiversity on the individual level following the national fisheries management plan</p>	<p>Scheduled for Y2</p>	<p>Develop locally adapted monitoring tool/template that includes the main commercial fish species and fishing effort (time; fuel); develop info guides with the national regulations for the reproduction period and sizes of the target species. Prepare the self-monitoring pack and test with fishers in Porto Mosquito and Rincão.</p>
<p>Activity 2.5 Evaluate the impact of current fishing techniques and trial more sustainable fishing practices with sample group of fishers; replicate success on the village level.</p>	<p>During the project workshop at the Uni-CV, the potential options to test different fishing techniques were discussed. The field tests with local fishers were conducted Rincão and Porto Mosquito villages. Fishing techniques, effort, catch composition and weight were recorded. The preliminary report and data collection sheets are available upon request.</p>	<p>Continue field trials with the fishers in Rincão and Porto Mosquito using methodology developed in Y1. Experiment different fishing techniques to observe the impact on the catch. Identify and trail suitable strategy to address shark fishing (targeted or accidental); start discussion on potential mitigation measures.</p>
<p>2.6 Link biodiversity monitoring to the eco-network operations to ensure cost-efficiency, incentives and longevity in the post project phase.</p>	<p>Ahead of Schedule. During the trial eco-tours with the artisanal fishers the concept of collecting data on marine megafauna was introduced to fishers and travellers. UNICV macroalgae specialist ran the assessment to identify algae species in the project zone of Gouveia - Porto Mosquito. One of the potential objectives is local algae cultivation to support the local livelihoods with the focus on local women.</p>	<p>Continue training local fishers in marine megafauna monitoring. Test the Code of Conduct for cetacean observation develop in Y1. Introduce snorkelling surveys led by local fishers. Together with fishers Identify incentives to support the process. Involve more females in the participatory monitoring especially encourages to learn snorkelling and monitoring of shallow coastal zones.</p>

<p>Output. 3</p> <p>The first MPA/LMMA proposed on the capital island of Santiago and submitted for the integration into the National PA system by the end of the project.</p>	<p>3.1 Sufficient socioeconomic and environmental data collected for the target area (Baía do Inferno) to support the establishment of MPA/LMMA following the national laws by Q4 Y1.</p> <p>3.2 Collaborative planning meetings organised with target stakeholder groups to define the most acceptable pathway for the MPA/LMMA establishment by Q3 Y2</p> <p>3.3 Proposal drafted and submitted to the government for the approval by Q2 Y3</p> <p>3.4 Official approval of the proposed MPA/LMMA received by the end of Q4 Y3</p>	<p>3.1 Baselines biodiversity data was collected during the first underwater expedition in Baía do Inferno. Socio-ecological survey using questionnaires were completed in in Rincao and Porto Mosquito villages. (Annexes A2 and A8)</p> <p>3.2 The first round of community meeting/consultations has been completed. More progress has been made in Rincão since the activity in Porto Mosquito had to be cancelled due to the COVID-19 measures. The communication of the concept of the new MPA has been presented to the target municipalities and discussed in the national workshop to identify new MPAs and gaps in marine conservation in the country.</p> <p>3.3 Planned for Y3 (ahead of schedule)</p> <p>3.4 Planned for Y3</p>	
<p>Activity 3.1 In collaboration with professional local divers, fishers, students run surveys to gather data on species/habitat diversity, seascape; geologic, historic value of the Baía do Inferno</p>		<p>The first marine biodiversity research expedition was completed in Baía do Inferno by the team of researchers from UNICV, ECOCV , Biosfera Cabo Verde, CIIMAR and Edmaktub in collaboration with the community of Porto Rincão. Surveys included belt transects, photo-quadrants, baited camera trials, opportunistic exploration at 35+m depth (scuba diving), drone mapping of the area. (See Annexed report A2; video and photos materials of the expedition upon request; publicity of the expedition in the press see Table 2). Baseline data was complemented by the socio-ecological surveys (see Annexed report A8) and the first geological survey (report is available upon request).</p>	<p>The study on the seascape features and historic importance of the bay will be finalised.</p> <p>With partners, we can possibly carry out marine surveys zone Ponta Pedrinha in the south and Baixu Santo in the north of the Baía do inferno.</p>
<p>Activity 3.2 Run series of planning meetings in the two villages adjacent to the prospective MPA (Porto Mosquito and Porto Rincão) with the national, municipal stakeholders</p>		<p>The first round of the meetings was completed with more advancement in the village of Rincao where the discussion was initiated on the potential zoning, designation, concrete benefits and opportunities. Results of the socio-ecological survey were presented and the range of opinions on the potential MPA were discussed in Rincao. The meeting in P.Mosquito was cancelled due to the COVID-19 national measures.</p>	<p>Conduct the second meeting In Porto Mosquito to present socio-ecological survey results and discuss the potential MPA with the same topics as in Rincao.</p> <p>Start introducing the concept of No take fishing zones and explore potential of trailing some areas voluntarily for speedier uptake of</p>

			future management measures.
Activity 3.3 In collaboration with the DNA prepare technical report and official proposal for protection/co-management of the target area and submit to the Government.		Scheduled for Y3.	The first stage proposal will be prepared and submitted to DNA in Y2. Due to the approaching elections in 2021 we were advised to speed up the process for the proposal of the new MPA in Santiago.
Activity 3.4 Run series of targeted meetings with relevant government representatives for faster approval of the MPA/LMMA		Ahead of schedule. The presentation on the potential first MPA in Santiago was introduced to the national stakeholders at the national workshop of BIOTUR/ UNDP-DNA project to identify gaps in the marine and coastal Cabo Verde. The process of the presentation of the proposal for the establishment of the MPA was discussed with the representatives of the National Directorate of Environment (DNA) and with the target Municipalities of Ribeira Grande de Santiago, Santa Catarina and IMar (National Institute of the Sea). The MPA concept was presented and the support for the establishment of the MPA was welcomed.	All the opportunities will be taken to communicate the progress and gather feedback and professional input of relevant national and municipal stakeholders including target municipalities and local community Associations of Fishers and Fish sellers.
Activity 3.5 Use social media to raise the importance of the MPA network in Cabo Verde and local uptake of the prospective MPA in the Baía do Inferno		Ahead of Schedule. Throughout the Y1 most of the press/social media communication about the Baía do Inferno included the notion that this Bay is the first MPA in Santiago and currently in development. The message was very intense during the first marine biodiversity expedition in Baía do Inferno. Means of communication included: national TV, Radio and social media sites (See Table 2 for the relevant links)	An extensive article will be published the national newspaper "A Nação" on the marine expedition, Baía do Inferno and the development of the eco-network. Interviews are planned in the radio 'Radio Educativa; progress regularly communicated on the project FB site and ECOCV website.
Output 4. A new rural ecotourism destination/ eco network linking four eco-villages developed to boost local employment, promote sustainable	4.1 Specific natural, social, cultural and financial resources mapped for the design and development of the eco network in the project area of over 250km2 by the end of Q2	4.1 Surveys to assess local services are completed. The annexed report A1 details the results. Other available evidence include structured information from community meetings and field work, including photos, videos, maps of resources: cultural, biological, historic. 4.2 Annexed reports A1 to A5 provide baseline data on the level of pollution and current waste management practices in the target communities. Annexed reports A2	

<p>travel, and enhance capacity for long-term employment for the target community groups by the end of the project.</p>	<p>Y2</p> <p>4.2 Ecological footprint (level and source of pollution on the household and community level; unsustainable /illegal fishing practices such as harpooning of dolphins, catching sea birds) is reduced by at least 30% in four target villages by Q4 Y3 from the baseline established by the end of Q4 Y1</p> <p>4.3 Tailor made training in hospitality, tour guiding, marketing, business, biodiversity delivered in four villages, and target groups prepared to step into the local ecotourism by the end of Q2 Y3</p> <p>4.4 Four new rural travel destinations/eco-villages and eco-centre prepared to generate income for local community groups by the end of Q3 Y3</p>	<p>and A8 provide baseline on the biodiversity and artisanal fisheries (socio-ecological assessment). Training modules on cetacean strandings that includes section on consumption of dolphin meat/zoonoses have been developed and communicated to Sao Francisco community members and some of the main, national stakeholders. Bio-calendar was produced to share some of the fisheries management policies in more user-friendly way.</p> <p>4.3 Training modules on marine conservation, waste management, eco-tourism, communications, English, first aid, food preparation, safety and hygiene have been developed and implemented. Some of the trainings have to be postponed to Y2 due to the COVID-19 national emergency policy.</p> <p>4.4 Between April 2019 and January 2020 Porto Mosquito received 26 travellers from Italy (via our Italian partner Viaggi&Miraggi. Their experience (marine eco-tour/ local food culture) assessment report is available upon request. Local family in Porto Rincão hosted project marine expedition staff over the period of 7 days. Eco-centres are in progress of development in communities of Gouveia, Sao Francisco and Porto Rincao (photos are available to show the preparation in progress). Info boards and panels have been prepared to support the development of eco-network. Annexed report A1 provides detailed description of results in Y1 to achieved the Output 4.</p>	
<p>Activity 4.1. Run planning meetings with the target communities to build vision of eco-village for each and map available or needed skills/ services/ resources within participant groups.</p>		<p>Fully achieved. Community meetings were conducted in all four project villages: São Francisco, Gouveia, Rincão and Porto Mosquito. Socio- ecological and cultural, historic data, local accommodation, food, celebrations, community organizations and active groups in the area were mapped as well as gaps, opportunities needs and challenges. Dossier was prepared for each community.</p>	<p>Activities 4.3-4.7 will be supported using results of this activity.</p>
<p>Activity 4.2. Run eco-network design workshops with the national tourism sector to map service demand and effectively integrate eco-villages into the tourism sector.</p>		<p>Consultation meetings with the Association of Tour Agencies of Cabo Verde was conducted in December 2019. Their feedback was collected via questionnaires. Report is available upon request. List of Agencies showing interest to collaborate was compiled.</p>	<p>To strengthen and officialise our partnership with the Association. Start consultations on the marketing of the eco-network and its products.</p>
<p>Activity 4.3. In collaboration with international partners and experienced local tour guides design the eco-network for target group</p>		<p>In December 2019 the meeting was held with the Association of Tour Guides of Santiago island. The president of the Association later</p>	<p>Q2 Y2 the technician from Italian partner Viaggi&Miraggi is expected in Cabo Verde to support field</p>

<p>of clients, national and international packages.</p>	<p>joined the team to explore the eco-trail to Monte Angra/ Baia do Inferno. Viaggi&Miraggi provided support in developing questionnaires and local services assessment methodology. Travellers through this organization already started testing eco-tours in Porto Mosquito-Baia do Inferno eco-network strip.</p> <p>Overall trails in the four project target areas were mapped. At this stage 6 trails were identified and were assessed by the level of difficulty, needed adjustments. Distinctive/ features of interest were marked (landscape, biological, cultural, historic). See annexed report A1.</p>	<p>work, trail design and further development of the eco-network. Joint exploration is planned with the Ass. Of Tour Guides of Santiago.</p> <p>Aim is to involve more certified local guides and start introducing them to the parts of the eco-network, also gathering their feedback to improve the development of the packages for travellers.</p>
<p>Activity 4.4. Set up the eco-centre (eco-network management and learning hub) in one of the target villages and co-management units in each eco-village</p>	<p>Due to the uniqueness of each target village, the decision has been made to set up 3 eco-centres instead of one using locally available resources to support the available budget. The significant progress has been made: Gouveia 70% complete, Rincão 45% São Francisco 40% complete. For Porto Mosquito we are looking for an adequate space in agreement with the local Municipality and school. Info panels were produced (Annex A6)</p>	<p>Continue with the set up of the centres. Explore additional funding options to expand eco-centre scope. Run planning meetings to identify members of communities for the management of each eco-centre and eco-network; develop targeted training modules on financial and logistic management; reception of travellers.</p>
<p>Activity 4.5. Deliver training programme for the skill enhancement for participants in each of the target villages based on their vision and identified knowledge gaps.</p>	<p>The training was divided into the two parts: Eco-citizenship (waste management, hygiene, first aid, biodiversity monitoring,) and Community guide (code of conduct, reception and communication, trail exploration, languages). 70% of the modules are ready (available upon request) and 50% were delivered. Some modules had to be postponed to Y2 due to COVID-19 .</p>	<p>Continue with the planned training. Introduce new modules on the operation and management of the recycling machines. By the end of Y2, community guides will be prepared to welcome visitors and trail independent guidance in the host communities</p>
<p>Activity 4.6. Market the eco-network and eco-villages (unique story, message, contribution), to reach and receive national and international travellers and generate the first sustainable income.</p>	<p>Ahead of schedule. The brand name for the new eco-network in Santiago island was finalized: Raiz Azul- the Blue Root (as translated from Caboverdean language). The logo has been developed.</p> <p>The project and Raiz Azul brand promotion roll up has been made.</p> <p>Four test tours with the Viaggi&Miraggi travellers</p>	<p>On Y2 we will continue to receive the Viaggi & Miraggi travellers to further test new sections of the network and gather practical feedback. Towards Q4 of Y2 the offer will be presented to national travel agencies and OiCaboVerde eco-tour company from Spain.</p> <p>The brand name Raiz Azul and the</p>

	from Italy were run in Porto Mosquito -Baia do Inferno part of the eco-network.	logo will be officially register with the national bureau.
Activity 4.7. Adopt Eco Code of Conduct for travellers and eco-villagers to prevent exploitation of locals, unhealthy competition, child/adolescent sexual abuse, maintain minimal environmental footprint	Planned for Y3	n/a

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact:</p> <p>A novel eco-village approach is developed to boost practical capacity of cabo verdeans for sustainable use and conservation of marine and coastal resources on the capital island of Santiago.</p>			
<p>Outcome:</p> <p>A reduced negative environmental footprint, an increased value of biodiversity and enhanced quality of life within coastal communities on the capital island of Santiago, Cabo Verde</p>	<p>0.1 The overuse of commercial marine species reduced and value of non commercial species and habitats increased by at least 30% from the baseline established at the start of the project in the target inshore zones of the project area by the end of Y3.</p> <p>0.2 General waste and macroplastic waste is managed (reused, reduced, recycled) and treated in at least 30% of households in four coastal villages by the end of the project from the current baseline of 0%.</p> <p>0.3 Marine and coastal area of at least 20 km² under national and/or local level of protection increased on Santiago Island from the current baseline of 0%.</p> <p>0.4 Income generating ecotourism network created linking at least four marginalised rural villages to socioeconomically benefit vulnerable groups (fishermen, fisherwomen, school dropouts, single mothers, heads of the poorest households), enhance and secure value of local biodiversity by the end of the project.</p>	<p>0.1 meeting minutes from stakeholder meetings; assessment of the local fisheries resources in the three municipalities, data analysis and reports; planning workshops with community members and government representatives;</p> <p>0.2 Assessment reports of the current gap analysis; methodology for improvement; campaigns and practical training courses; installations and equipment; monitoring report of the local use.</p> <p>0.3 Biodiversity data reports; minutes from participatory meetings; proposal to the government; Co-management and participatory monitoring plans.</p> <p>0.4 Training sessions, list of participants; number of local people trialled income diversification</p>	<p>0.1 Community and relevant stakeholders are willing to participate and interested to shift towards more sustainable use of marine resources and coastal zones in the project area</p> <p>0.2 Community members are willing to adopt developed methodology and activities; local government supports the implementation and accepts co-ownership in the long-term</p> <p>0.3 Adjacent fishing communities and local government supports the conservation actions for the target area. Local and national government supports fully supports the process</p> <p>0.4 target community members are willing to explore livelihood diversification options or/and learn new skills to be more competitive in the expanding tourism market. New rural travel niche generates sufficient interest from national and international travellers.</p>
<p>Output 1</p> <p>General and plastic waste management and income generating system developed and adopted in the four coastal villages by the end of the project.</p>	<p>1.1 Locally adapted set of actions to treat and reuse/recycle waste produced on the village level developed by Q2 Y2 and tested in the four target villages by the end of the project</p> <p>1.2 Intensive awareness campaign and practical training is conducted in the four target villages and the municipal level to speed up the uptake of waste</p>	<p>1.1 Community awareness assessment survey; records of feedback from community members; equipment acquired; locations identified;</p> <p>1.2 Number of training participants, campaign handouts and meeting records; programs on national radio and TV;</p> <p>1.3 One national and one international</p>	<p>1.1 Community members are willing to test new solution and change their attitude towards waste utilization</p> <p>1.2 Project technicians are able to produce effective and targeted messages that reach various user groups</p> <p>1.3 Companies are willing to collaborate in the utilization of macroplastic and</p>

	<p>management system by the Q1 Y3</p> <p>1.3 Links and partnerships with national and international companies developed for the installation of the recycling system for macroplastics by Q4 Y2</p> <p>1.4 Target zones and biodiversity (marine and coastal) in the project site assessed for the microplastic contamination and relevant strategies to address the issue developed by Q2 Y2</p>	<p>company linked to plastic recycling and utilization identified, plastic recycling machines acquired, collaboration protocols signed; plastic waste management system drafted.</p> <p>1.4 Technical reports; number of researchers and local stakeholders involved; student thesis produced;</p>	<p>hard residuals.</p> <p>1.4 Sufficient financing is available to conduct in depth survey in the project area</p>
<p>Output 2</p> <p>Stakeholders and target community members increased knowledge on value of local marine biodiversity and have developed a set of practical skills for more sustainable use of local ecosystem services by the end of the project.</p>	<p>2.1 Baseline of the artisanal fisheries resources and non-commercial indicator species and habitats established by Q4 Y1, impacts and indicators for long term monitoring finalised by Q3 of Y3 for the target zones in the project area.</p> <p>2.2 Alternative fishing techniques tested and impact reduction on local fish populations estimated by Q4 Y2.</p> <p>2.3 Participatory monitoring and income diversification (see Output 4) introduced to enhance self-management of fishing practices and reduce pressure on overexploited marine resources in the target fishing communities by Q2 of the year 3 (baseline to be established at the start of the project)</p>	<p>2.1 Technical reports; interviews, number of surveys, databases; training sessions;</p> <p>2.2 Fish catch data; interviews with local fishers, fish sellers and other relevant stakeholders; assessment sessions, meeting minutes.</p> <p>2.3 Fish catch data (sizes, species) compliance with the closed season for target species;</p>	<p>2.1 Sufficient funding is available to conduct quantifiable data collection</p> <p>2.2 Local fishers are willing to trial alternative fishing practices</p> <p>2.3 Local fisher and community members in the three fishing villages ready to test new solutions for more sustainable use of marine and coastal ecosystems</p>
<p>Output 3</p> <p>The first MPA/LMMA proposed on the capital island of Santiago and submitted for the integration into the National PA system by the end of the project.</p>	<p>3.1 Sufficient socioeconomic and environmental data collected for the target area (Baia do Inferno) to support the establishment of MPA/LMMA following the national laws by Q4 Y1.</p> <p>3.2 Collaborative planning meetings organised with target stakeholder groups to define the most acceptable pathway for the MPA/LMMA establishment by Q3 Y2</p>	<p>3.1 Technical reports; number of surveys and surveyors involved; datasets;</p> <p>3.2 List of participants; minutes of meetings; technical decisions, products of the meetings;</p> <p>3.3 Final technical report and official proposal</p> <p>3.4 Official letter/publication by the government officials</p>	<p>3.1 Sufficient funding is available to collect adequate data to support the proposal of the first MPA/LMMA on the island</p> <p>3.2 Stakeholders willing to support and participate in the process</p> <p>3.4 Government approves the proposal and the designation by the end of the project</p>

	<p>3.3 Proposal drafted and submitted to the government for the approval by Q2 Y3</p> <p>3.4 Official approval of the proposed MPA/LMMA received by the end of Q4 Y3</p>		
<p>Output 4</p> <p>A new rural ecotourism destination/ eco network linking four eco-villages developed to boost local employment, promote sustainable travel, and enhance capacity for long-term employment for the target community groups by the end of the project</p>	<p>4.1 Specific natural, social, cultural and financial resources mapped for the design and development of the eco network in the project area of over 250km2 by the end of Q2 Y2</p> <p>4.2 Ecological footprint (level and source of pollution on the household and community level; unsustainable /illegal fishing practices such as harpooning of dolphins, catching sea birds) is reduced by at least 30% in four target villages by Q4 Y3 from the baseline established by the end of Q4 Y1</p> <p>4.3 Tailor made training in hospitality, tour guiding, marketing, business, biodiversity delivered in four villages, and target groups prepared to step into the local ecotourism by the end of Q2 Y3</p> <p>4.4 Four new rural travel destinations/eco-villages and eco-centre prepared to generate income for local community groups by the end of Q3 Y3</p>	<p>4.1 Technical reports, GIS maps, questionnaires, list resources in various categories</p> <p>4.2 Developed methodology; assessment datasets; community feedback;</p> <p>4.3 Training modules; list of trainees; assessment of the participants and certification categories such as eco guides, local art/craft producers, cooks, tailors (demand will be established after the baseline mapping of the skills)</p> <p>4.4 Eco centre; Publicity sessions on social media, national TV and radio; website; links with the travel agencies in country and internationally; destination co-management units; income received</p>	<p>4.1 Local participants show willingness and interest to join in the eco network</p> <p>4.2 Members of the three target villages are willing to adopt behavioural change towards healthier and more sustainable living on individual and communal levels</p> <p>4.3 Number of villagers including participants from sensitive community groups willing to complete the training and explore new opportunities</p> <p>4.4 New travel destinations generate enough interest among travel agencies and independent travellers</p>
<p>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)</p> <p>1.1. Run baseline survey and planning meetings with target community members to establish baseline for the waste disposal methods and prioritise reuse/recycle/reduction measures and locations.</p> <p>1.2. Test the identified measures with the selected households, evaluate and replicate on the village level</p> <p>1.3 Run waste disposal awareness campaign “Nha lixu e di meu” (my rubbish is my responsibility) in collaboration with the civil movement ‘350 Cabo Verde’</p> <p>1.4 Propose social and environmental responsibility programme for the major plastic producers in Cabo Verde to co-fund/co-manage plastic recycling machines for the target villages.</p>			

- 1.5 In collaboration with CERMI and LEC adjust prototypes of plastic recycling machines for energetically sustainable use, train personnel in operation and management.
- 1.6 Using adapted methodologies, test samples of sand, water, invertebrates, fish, domestic animal/human faeces in the selected locations to test prevalence of micro plastic.
- 1.7 Run the first national awareness campaign to communicate the results and highlight impacts and solutions for plastic management.
- 2.1 Use INDP, DGRM, DNA , fisher data and field work surveys (including UAV technology) to establish the baseline and indicators in partnership Bangor University
- 2.2 Evaluate qualitative and quantitative data to establish the projection and impact of project actions
- 2.3 Develop targeted campaign to communicate the value of the resilient marine ecosystem to the coastal communities and decision makers
- 2.4 Introduce system for the self-monitoring of artisanal fishing catch, associated marine species and habitats on the individual level following the national fisheries management plan
- 2.5 Evaluate the impact of current fishing techniques and trial more sustainable fishing practices with sample group of fishers; replicate success on the village level.
- 2.6 Link biodiversity monitoring to the eco-network operations to ensure cost-efficiency, incentives and longevity in the post project phase.
- 3.1 In collaboration with professional local divers, fishers, students run surveys to gather data on biodiversity, seascape, geologic, historic value of the Baia do Inferno
- 3.2 Run series of planning meetings in the two villages adjacent to the prospective MPA with the relevant stakeholders and community members
- 3.3 In collaboration with the DNA prepare technical report and official proposal for protection/co-management of the target area and submit to the Government.
- 3.4 Run series of targeted meetings with relevant government representatives for faster approval of the MPA/LMMA
- 3.5 Use social media to raise the importance of the MPA network and local uptake of the prospective MPA in the Baia do Inferno
- 4.1 Run planning meetings with the target communities to build vision of eco-village for each and map available or needed skills/services/resources within participant groups.
- 4.2 Run eco-network design workshops with the national tourism sector to map service demand and effectively integrate eco-villages into the tourism sector.
- 4.3 In collaboration with international partners and experienced local tour guides design the eco-network for target group of clients, national and international packages.
- 4.4 Set up the eco-centre (eco-network management and learning hub) in one of the target villages and co-management units in each eco-village.
- 4.5 Deliver training programme for the skill enhancement for participants in each of the target villages based on their vision and identified knowledge gaps.
- 4.6 Market the eco-network and eco-villages (unique story, message, contribution), to reach and receive national and international travellers and generate the first sustainable income.
- 4.7 Adopt Eco Code of Conduct for travellers and eco-villagers to prevent exploitation of locals, unhealthy competition, child/adolescent sexual abuse, maintain minimal environmental footprint.

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Cod e No.	Description	Gender of people (if relevant)	National ity of people (if relevant)	Year 1 Total	Ye ar 2 Total	Ye ar 3 Total	To tal to da te	Total planne d during the project
Establi shed code s								
4A	UniCV students- Participatory monitoring, socio-ecological surveys, internships, waste surveys, eco-network mapping UniPiaget students- participatory monitoring of cetaceans	62 F 31 M	89 caboverdean 4 brazilian	93				150
4B	See 4A			36				
6A	Members of target communities that participated in eco-citizenship, eco-tourism, protected area, participatory monitoring training	256 M 298 F	Cabo verdeans	554				1200-1500
7	Videos, photos, information panels, posters, bio-calendar, manuals, lectures/modules, data recording sheets, questionnaires, code of conduct, ID guides (cetaceans, fish, sea turtles, sharks, cetaceans, sea birds); project ID cards,			12				15-18
10	Cetacean Code of Conduct Cetacean strandings guide Cetacean participatory monitoring guide for Santiago Island Cetacean ID guide Common marine fish and invertebrate species ID guide Common marine bird species ID guide Common sea turtle and shark species ID guides Cetacean Photo-ID database			8				10
11A	Currently in development: 1. Assessment of Microplastic prevalence in the ecosystems of coastal communities. 2. The first marine biodiversity assessment in Baía do Inferno 3. Socio-ecological study of the target coastal communities on the Island of Santiago			3				5
12A	Cetacean monitoring: citizen science and dedicated surveys			6				9-10

	<p>Artisanal fisheries participatory monitoring</p> <p>Socio-ecological assessment of coastal fisher communities</p> <p>Marine biodiversity (fish and invertebrates) Baia do Inferno</p> <p>International tourist experience assessment</p>						
14A	<p>Workshop to develop biodiversity and social indicators in collaboration with national stakeholders (UniCV, ECOCV, DGRM/IMar; community members) and Bangor University. Praia, September 2019</p> <p>National workshop of cetacean monitoring and rescue (UniCV, ECOCV, IMar, IMP; DGRM) Praia, February 2020</p>			2			6
14B	<p>National workshop to analyse gaps in the marine conservation actions and identify new marine protected areas. Presentation of Baia do Inferno as the first MPA in Santiago; Island of Sal, May 2019</p> <p>EU MSCA-RISE-777998 Concha project workshop" the construction of early modern global cities and oceanic network in the Atlantic: An approach via Ocean's Cultural Heritage'. Praia, CV August 2019</p> <p>Reduction of the impact of the infrastructures in the coastal zone; MAVA, ADAD, PRCM, Wetland International; Praia-Tarrafal, CV September 2019</p> <p>Environmental Fair, Praia, CV June 2019</p> <p>Oceans Day Fair, June 2019</p> <p>Artisanal Crafts and Arts Fair Christmas Fair, December 2019</p> <p>EU Beach Clean up Campaign, September 2019</p> <p>UN Day in Porto Mosquito, October 2019</p>			8			16-18
20	<p>The project is led by the host country, therefore all the equipment acquired with the support of Darwin Initiative will remain in the country</p>						
21	<p>Community eco-centre in São</p>			3			4

	Francisco; Eco-tour/info centre in Gouveia and Eco-tour-recycling-fisher centre in Porto Rincão – all under development							
22	Baia do Inferno (the first MPA for Santiago Island in development, area of about 40 KM2) 2 sites in the north and south part of Porto Rincão as participatory monitoring sites. The inshore sea strip between fishing villages of Gouveia and Rincão and Sao Francisco Bay - for monitoring of marine megafauna.				4			7
23								

Table 2 Publications

Title	Type (e.g. journals, manual, 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)
UniCV desenvolve projeto para promover o sistema sócio-ecológico de Cabo Verde.	UNICV website	Jornalist from UNICV	1M 1F	Cabo verdeans	UNICV	http://www.unicv.edu.cv/arquivo-noticias/5958-uni-cv-desenvolve-projeto-para-promover-a-resiliencia-do-sistema-socio-ecologico-em-cabo-verde?highlight=WyJIY28tdmlsYSJd
Eco-village approach to enhance socio-ecological resilience in Cabo Verde	Darwin Newsletter - Planet Plastic August 2019	Raiz Azul Cabo Verde (UniCV & ECOCV)	2F	Cabo verdeans	Darwin	https://www.darwininitiative.org.uk/assets/uploads/Darwin-Newsletter-August-2019-Planet-Plastic-FINAL.pdf
Baía do Inferno expedition/ Project Eco-Village	Radio program - Primeiro Jornal	2019, Prof. Rui Freitas with the journalist Julio Vera Cruz	2M	Cabo verdeans	RCV National Radio of Cabo Verde, Praia	http://www.rcv.cv/index.php?paginas=9&id_cod=12383

Baía do Inferno Expedition	Uni-CV website	2019, Uni-CV comms team	n/a	Cabo verdeans	Uni-CV, Praia	http://www.unicv.edu.cv/eventos/icalrepeat.detail/2019/10/02/809/63/primeira-expedicao-para-avaliar-a-biodiversidade-marinha-subaquatica-ilha-de-santiago
Eco-village project and the expedition Baía do Inferno	TV Program Cabo Verde Magazine and	2019, Rui Freitas, Edita Magileviciute, Tommy Melo, Teresa Amaro,	2M 2F	2 Cabo verdeans , 1 Portuguese, 1 Lithuanian	TCV-National TV station of Cabo Verde	http://videos.sapo.cv/N1LOg8UzZnzroIRRWQp5?fbclid=IwAR3Bf_v5FYOXRgHofPUU3QF12DoOUNbsQTF8RoggW3VKy0-T78hQd4vY3AA http://www.rtc.cv/index.php?paginas=47&id_cod=83871
Project Eco-Village	Tv program Cabo Verde Magazine and Jornal de Noite	Edita Magileviciute, Maria Fidalgo	2F	1Cabo verdean, 1 Lithuanian	RTC-National tv station	http://rd.videos.sapo.cv/ZP7NzH1ZlhOVI50jsVe1?jwsouce=cl
All project Eco-Village updates	Facebook pages	Edita Magileviciute, Roberta Badovini, Mara Abu-Raya	3F	1Lithuanian, 1 Italian, 1Cabover dean	Social media site	https://www.facebook.com/raizazulcaboverde/ https://www.facebook.com/ecocvcaboverde/

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	Yes
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	