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Darwin Initiative Main: Final Report

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

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

Submission Deadline: no later than 3 months after agreed end date.

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

Darwin Initiative Project Information

Project reference	28-011
Project title	"We are the forest:" beiradeiro training and socio-environmental services, Amazonia
Country(ies)	Brazil
Lead Organisation	Instituto Socioambiental (ISA)
Project partner(s)	Associação dos Moradores do Riozinho do Anfrísio (AMORA) Associação dos Moradores do Rio Iriri (AMORERI) Associação dos Moradores do Rio Xingu(AMOMEX) Universidade Federal do Pará (UFPA) Universidade Federal do Oeste do Pará (UFOPA)
Darwin Initiative grant value	£370,604.00
Start/end dates of project	01/07/2021/30/06/2024
Project Leader name	Dr. Roberto [REDACTED]
Project website/blog/social media	
Report author(s) and date	[REDACTED]

1 Project Summary

The project aimed to promote biodiversity conservation, improve income, and enhance the quality of life for Beiradeiros in three Extractive Reserves in Terra do Meio region, southern Brazilian Amazon (see Map 5.1, Annex 5, Final Report). These Extractive Reserves—RESEX Riozinho do Anfrísio, RESEX Rio Iriri, and RESEX Rio Xingu—are Sustainable Use Protected Areas inhabited by hundreds of Beiradeiro families.

Beiradeiros are a type of forest-dwelling peasantry whose way of life is closely related to the conservation of tropical forests. Beiradeiro communities face poverty due to a chronic absence of state support (health care, education and surveillance). This situation has driven younger generations to abandon traditional activities and leave their territories, which in turn facilitates

land grabbing, illegal gold mining, logging, and other threats to over 1.5 million hectares of highly biodiverse forest.

Indigenous people and local communities of the Amazon provide a set of environmental and cultural services that are not recognized or remunerated. In the Xingu river basin, a region facing pressures from deforestation, degradation and illegal activities, the territories of beiradeiros and indigenous peoples are some of the most conserved areas (see Report 7.4, Annex 7, Final Report). The ways of life of these people and their ancient production systems also produce great knowledge about biodiversity and the territory, agrobiodiversity in their cultivars, *in situ* conservation of seeds, production of varieties and new species, maintains water quality and quantity, helps regulate the climate, creates and maintains a great deal of knowledge of indicators about climate and ecological changes and their consequences. The recognition and remuneration of these socio-environmental services by the wider society would ensure that these ways of life are valued and fostered, ensuring that young people remain in their territories providing these services.

Despite local and global benefits of these ways of life, many communities live with different dimensions of poverty, historically manifested in the absence of public policies such as education, health, transport, and income. Poverty and prejudice leads young people to distance themselves from their identity, mainly when they are in the city in the presence of urban people, feeling ashamed of their history, their parents, their way of life and their culture.

Throughout the project, Instituto Socioambiental (ISA)—a socio-environmental NGO with over two decades of experience in the area—and Beiradeiro Associations (AMORA, AMORERI, AERIM and AMOMEX) have developed strategies to address youth inclusion and the recognition of the socio-environmental services provided by Beiradeiros and their traditional agroforestry system. First, we built a network with universities and researchers (Federal University of Pará - UFPA; Federal University of Western Pará - UFOPA; and University of São Paulo - USP) to offer Beiradeiro youth a course on valuing their identity and way of life, as well as on the rights of local communities in Brazil, the management rules of protected areas, and how the governance of their territories works. Alongside the Beiradeiro youth and universities (including University of Greenwich), we developed a quality of life and environmental monitoring system based on a mobile application. This monitoring system provides data for assessing the conditions of the communities and the territory and has also been adopted by the Rede Terra do Meio (a network of cooperation between Beiradeiros and indigenous people for the sale of forest products) as an indicator system for the commercialization of socio-environmental services and income improvement. We have also initiated the process of recognizing the Beiradeiro way of life as a Traditional Agroforestry System (TAS) with the Brazilian state and Globally Important Agricultural Heritage systems (GIAHS) with the Food and Agriculture Organization (FAO).

By working towards youth training, official state recognition of their way of life (TAS), and the socio-environmental and ecosystem services they provide, the project has trained a generation of Beiradeiros in Terra do Meio to achieve basic rights and enhance their leadership and autonomy in the management and care of their forests. The project has also contributed to engaging young people in traditional productive activities (notably in the rubber value-chain) and recognizing the socio-environmental services provided by these communities, helping to improve income and combat poverty and abandonment of their territories.

2 Project Partnerships

Resident's Association of the Riozinho do Anfrísio Extractive Reserve (AMORA), Resident's Association of the Rio Xingu Extractive Reserve (AMOMEX), Resident's Association of the Rio Iri Extractive Reserve (AMORERI) and Iri River and Maribel Extractivists Association (AERIM). The Beiradeiro organizations supported the logistical planning and execution of the project. They organized six assemblies and community meetings (see Images 1, 2, 3 and photos 1 to 3 and 24 to 29 in Annex 4 of the Year 2 Annual Report), where project activities were evaluated and renegotiated. Francinaldo Lima, the technical coordinator of the Beiradeiro Organizations, was primarily responsible for these activities. He also established a partnership with the Municipal Department of Education and the Municipal Health Council, leading to improvements in public educational policies and the promotion of public health in the territory. Additionally, he worked on strengthening the Beiradeiro

Organizations and negotiating with commercial partners of Rede Terra do Meio, where he is also a member of the executive secretariat. This partnership will remain after the conclusion of this project, as the associations will continue to carry out other actions with ISA, in accordance with the Terms of Cooperation established until 2027.

Federal University of Western Pará (UFOPA) professors in archaeology (Dr. Bruna Rocha and Dr. Vinicius Honorato) and anthropology (Dr. Diego Amoedo and Dr. Lucybeth Arruda) were involved in planning schedules, content, and reviewing the study notebooks, and they taught modules 3 and 4 of the Territorial Management Course (see photo 4 in Annex 4 of the Year 2 Annual Report). Honorato participated in assemblies and community meetings to present the collaborative research proposal in archaeology, which is part of the project. The professors selected four undergraduate student volunteers (two from anthropology and two from archaeology) to support the project. These students assisted with data analysis from monitoring food and daily activities, as well as the analysis of archaeological material. Professors Diego Amoedo and Lucybeth Arruda, along with their students, conducted analysis of food monitoring data (see Report 7.5, Annex 7 of this Final Report). The archaeology professors and their students carried out fieldwork in archaeological excavation at Morro do Anfrisio and Manelito locations (see Photos 20 to 23 and 30 to 32 in Annex 4 of the Year 2 Annual Report; and Report 7.6, Annex 7 in this Final Report).

Federal University of Pará (UFPA) research group led by Professor Dr. Juarez Pezzuti collaborated on the project focusing on human ecology, ethnobiology, ethnoecology, and sustainable resource management. They contributed to collaborative fauna monitoring and the development of biodiversity data collection protocols. Key members, including Dr. Pezzuti, M.Sc. Felipe Matheus, and master's student Otávio Vulcão, were involved in data collection and analysis. Otávio Vulcão also taught in the Territorial Management course to train new fauna monitors. Dr. Juarez Pezzuti and Otávio Vulcão analysed the data and prepared the fauna monitoring report (see Annex 5 of the Year 2 Annual Report; and Report 7.3, Annex 7 of this Final Report). The partnership with UFPA is set to continue, particularly in collaborative research and monitoring, under a Cooperation Term established until 2028.

The Municipal Department of Education of Altamira (SEMED) supported the implementation of the six modules of the Territorial Management course by providing the necessary infrastructure in schools located in the development poles of each of the three RESEX. In partnership with the project, SEMED organized two days of training for teachers from local schools (see photos 5, 6, 7 in Annex 4 of the Year 2 Annual Report). The training content was based on the material taught in the Territorial Management course (see Table 5.2 and Workbook 5.3 in Annex 5 of this Final Report). Most local school teachers are not Beiradeiros and are not intimately familiar with Beiradeiros' ways of life. To address this, teachers became partners in the project, working to develop teaching materials suited to the local reality of the Beiradeiros territory. They also received a workbook, references on the Territorial Management course, and a game related to the history of the Beiradeiros to use in their classes (see photo 7 in Annex 4 of the Year 2 Annual Report).

Chico Mendes Institute for Biodiversity Conservation (ICMBio) is the federal agency responsible for managing Federal Conservation Units, including RESEX. It oversees the Monitora Program (), the official monitoring program for Conservation Units in Brazil. UFPA and ISA collaborate with the Monitora program in Terra do Meio, developing local protocols and facilitating the participation of young Beiradeiros in the program. Together, we conducted fauna and biodiversity monitoring expeditions and tested alternative monitoring methods based on traditional knowledge (see Report 7.3, Annex 7 and Letter 8.1, in Annex 8 of this Final Report).

Rede Terra do Meio is a network of 20 associations of different peoples in the Terra do Meio region, making up 10 million hectares of protected areas. Rede Terra do Meio organises production and commercialization of non-timber forest products for beiradeiro and indigenous families represented by these associations. Rede Terra do Meio history, role and governance was the topic of module 3 of the territorial management course (see photos 8, 17, 18 and 19, Annex 4, Year 2 Annual Report and table 5.2, Annex 5, Final Report). One of the network's main challenges is precisely to add value to its products and actions by remunerating the

environmental services provided by these different people in their territories. The development of a quality of life and environment monitoring system that serves as an indicator of environmental services is crucial for the future of the network because market prices often do not guarantee the cost of production and a decent income for producing families. Our project started a monitoring system useful for the network. Some data on the forestry products chains is provided by the Terra do Meio Network itself (see presentation 8.6, Annex 8; Report 7.1 and 7.2, website [REDACTED] and Table 7.2 and 7.3, Annex 7 Final Report). As a result of this partnership, we are seeking resources to consolidate our monitoring efforts and expand them to additional territories. This will help facilitate public policies and strengthen PSA markets in the region.

Rede Xingu+ is a partner of the project providing GIS data analysis of deforestation, degradation, traditional land use and conflicts with illegal predatory activities (see Table 5, Maps 3, 4 and 5 in Annex 4 of the Year 1 Annual Report; Report 7.4, in Annex 7 of this Final Report; website [REDACTED]). Young students from the course were selected to form the Xingu+ group of communicators. The students of the course Maria Patrícia (Baliza community, RESEX Rio Xingu), Maxiel da Silva (Boa Esperança community, RESEX Rio Iriri) and Marta Gomes da Silva (Morro Verde community, RESEX Riozinho do Anfrísio) were selected by course teachers and Beiradeiro associations to compose the group of communicators in training. The group includes indigenous representatives from other protected territories inside the Xingu River basin (see photo 9, Annex 4 of the Year 2 Annual Report). The coordinator of the communicators training at Rede Xingu+, Sílvia Moan, participated in one of the modules of the Territorial Management Course.

Professor Eduardo Neves (University of São Paulo - USP), leader of the Project “Amazonia Revealed: Mapping Cultural Legacies”, supported by National Geographic Society, included Terra do Meio as one of the sites of the project due to our collaboration with UFOPA and archaeologists Dr Bruna Rocha and Dr Vinícius Honorato. The project, underway since 2023 and set to conclude in December 2024, aims to use LiDAR technology in threatened areas of the Amazon to survey archaeological structures under the forest canopy and reveal ancient structures and roads. The initiative continues to engage Beiradeiros in recording and analysing material elements related to their cultural heritage (see Report 7.6 and Form 7.1, Annex 7 of this Final Report). Based on the data from LiDAR surveys, the archaeological team will visit sites with potential archaeological significance to conduct interventions. The goal of this project is to establish an additional layer of protection for the territories of forest peoples, as archaeological sites registered with the National Historical and Artistic Heritage Institute in Brazil are required to be protected.

University of Greenwich and University of São Paulo were partners of ISA in the exploratory research project entitled “A UK-Brazil Knowledge-Action Network to facilitate Indigenous-led innovation for sustainable and inclusive community-based economies” funded by The Academy of Sciences of the United Kingdom. The project lasted one year and was coordinated by Prof. Dr. Cristina Adams (School of Arts, Sciences and Humanities of the University of São Paulo - EACH USP) and Prof. Dr. Pamela Katic (Associate Professor of Economics at the Institute of Natural Resources - University of Greenwich)¹. The project focused on the analysis and improvement of the Terra do Meio monitoring system, including the identification of new indicators of environmental services provided by this Beiradeiro way of life and the relationship between these services and the ecosystem services presented in Brazilian law 14,119/2021. The project resulted in a report that present a framework of indicators and propose improvements to the Terra do Meio Monitoring System (see Table 6.1 and Image 6.1, Annex 6, Final Report) and promoted a workshop in July 2024 to discuss the preliminary results obtained (see presentations 8.4 to 8.6, Annex 8, Final Report). Recently, the project team also submitted a new research application for a new call from The Academy of Sciences of the United Kingdom, for a period of

¹ Furthermore, 4 doctoral researchers and 1 master's researcher officially made up the team's interdisciplinary collaborators: Dr. Marcelo Precoppe (Natural Resources Institute, University of Greenwich, UK); Dr. Raquel Rodrigues dos Santos - Federal University of Pará (UFPA); Dr. Lucia Chamlian Munari, - Analyst in Intercultural Research at the Instituto Socioambiental, Vale do Ribeira Program; Dr. Roberto Sanches Rezende, Coordinator of the Xingu Program at the Instituto Socioambiental; Mr. Frederico Viegas de Freitas Silva, Coordinator of the Vale do Ribeira Program at the Instituto Socioambiental.

four years, maintaining collaboration with ISA, to continue work with the Monitoring System. Half, as an offshoot of this Darwin project.

We had a partnership with the **research network of the project “Traditional communities, environmental conservation and territorial policies”** developed by the State University of Campinas (UNICAMP) and the Federal University of Pará (UFPA). The members of this project (Dra Natalia Guerrero, Dra Raquel Rodrigues) participated directly in carrying out 3 modules of the Territorial Management Course. They brought as special guests to these modules, traditional peoples from two other river basins in Brazil, three *Caiçara* leaders from Juréia (Dauro, Marcos Prado and Daiane Alves), a region of Atlantic Forest located in southeastern Brazil, and a beiradeiro leader from the Tapajós Basin, Francisco Firmino Silva (photos 10 and 11, Annex 4 in the Year 2 Annual Report).

Instituto Caiçara da Mata Atlântica is an organisation representing the Caiçara people of the Juréia region. Caiçaras are a traditional Brazilian people that live on the coast of Paraná, São Paulo and Rio de Janeiro. The Caiçaras of Juréia have been working to promote political rights for traditional peoples within the Brazilian government and public agencies for a long time. They have been important leaders advocating for social rights and contributing to biodiversity conservation. The Instituto Caiçara also conducts collaborative research with professors from several Brazilian universities. They participated in the Territorial Management course teaching classes and coordinating strategies with young Beiradeiros and their associations to claim for a participation in the National Council of Traditional Peoples and Communities. Dauro do Prado, a prominent historical leader of the Caiçaras, along with students and professors of the course and Terra do Meio leaders accomplished the election of a Terra do Meio representative to the council: Marinês Lopes de Sousa from the Baliza community in RESEX Rio Xingu and Wane Gonçalves from the Maribel community (Iriri).

Quilombolas of Vale do Ribeira. Quilombolas are a traditional people descended from black people enslaved in Brazil who created communities (called quilombos) in more distant locations to resist slavery. Four quilombola women from Vale do Ribeira in the São Paulo region, with whom ISA has partnerships, participated in module 6 of the territorial management course (see photo 5.25, Annex 5, Final Report). In an unprecedented exchange between quilombolas and beiradeiros, quilombolas brought their experiences, knowledge, practices and struggles, including the experience of having had one of the only TAS recognized by IPHAN. This partnership will continue as we are submitting a project application to improve the monitoring system in Terra do Meio and Vale do Ribeira. It includes new exchange programs and strategies to claim for traditional peoples and communities rights and consequently biodiversity conservation. A major challenge of this partnership is the distance between the territories, which could be overcome through the support of researchers from USP and University of Greenwich, UK.

University of Lins and the company Schneider Electric Brasil supported the implementation of a basic electrical installation and photovoltaic energy course during modules 6 of the territorial management course by providing methodology, workbooks, teachers and materials for practical classes (see photo 5.28 to 5.32, Annex 5, Final Report). A major challenge of this partnership was the difficulty to acquire the required amount of electric material in time for practical classes (solar panel system and batteries), however, it was possible to purchase one kit for demonstration. This partnership will continue as 38 small kits of solar energy systems will be donated to the Beiradeiros Associations to be installed in strategic locations in the communities (schools and health centres).

The Movement of Working Women of Urban and Rural areas of Altamira participated in module 6 of the territorial management course. They are a reference in advocating for women's rights in the city of Altamira. We invited them to teach about the laws and the work of public agencies on women's security. They talked with the students about ways to report domestic violence and how to create a support network for women who live and experience these problems (see photos 5.22 to 5.24, Annex 5, Final Report).

Aldeias is a NGO created to work on alternative education for vulnerable youth populations as a way to diminish some impacts of the Belo Monte hydroelectric construction in Altamira. The organisation participated in Module 6 of the Territorial Management course, facilitating

connections between Beiradeiros and residents of Altamira's outskirts. They addressed critical topics such as food security, urban violence, the right to live in the territory, and education for citizenship (see photos 5.19 to 5.21, Annex 5, Final Report).

Health in Harmony (HiH/SAMA) is an NGO that develops actions and projects to improve life conditions for forest people, focusing on health care. SAMA supported health care recommendations and guidelines in all modules, especially with regard to measures and actions to face the pandemic situation. SAMA also participated in module 6 with guidance and dialogues on gender issues.

3 Project Achievements

To evaluate the project's achievements, it is important to understand the complementarity of the activities and actions undertaken, and how they contribute to a more consolidated impact, as outlined in the proposal.

In the training course, we aim to critically promote beiradeiro history, identity, knowledge, and culture among the young people of the RESEX. The most significant outcome of this effort has been strengthening the connection between young people and their Beiradeiro identity. Additionally, we work with these youth to help them recognize that they and their communities, like other traditional and indigenous peoples, play a crucial role in shaping the future—not just for themselves, but for the entire planet. They provide alternatives to the dominant predatory development model. We emphasise that their ways of life and culture, rather than being outdated, are highly effective in the respectful and sustainable use of the environment and other forms of life. Ultimately, the future can and should be within their territory, as long as improvements are made in key areas such as education, communication, income, health, sanitation, transportation, and support for culture and traditional ways of life.

In this context, specifically regarding income, it is essential for the market and public policies to recognize the intrinsic and often unacknowledged values of non-timber forest products resulting from traditional activities. It is crucial to establish mechanisms for valuing and remunerating the environmental services these products provide. Recent legislation in Brazil concerning Payment for Environmental Services is currently being regulated. We advocate, during workshops for regulation and in collaboration with various sectors and entities, that payments for environmental services should partially fund the remuneration of non-timber forest products for indigenous and traditional peoples. This includes acknowledging that these products contribute to maintaining Traditional Agroforestry Systems and a way of life that, beyond the products themselves, supports conservation, quality of life, agrobiodiversity, and other environmental services.

Therefore, it is evident that for the Traditional Agroforestry System of the beiradeiro community to continue providing its socio-environmental benefits, young beiradeiros must have a positive outlook on their future within their territory and way of life. Many young people are leaving their communities to pursue secondary education, which is lacking locally, for example. However, beyond the need for public policies in education, health, transportation, etc., there are also issues of historical prejudice and its consequences, as well as a lack of economic alternatives that offer a decent income. Based on this reasoning and the conclusions drawn, we report the outputs and outcomes of our project.

3.1 Outputs

1. Young people trained in content and skills to assume social and technical roles, to lead their associations and communities.

In May 2024, we concluded the training conducted by the "We are the forest" project, in which at least 49 Beiradeiro youth participated in the training modules of the Territorial Management Course. This has equipped them to better support beiradeiro families and associations in their quest for an improved quality of life and conservation of their territories (see indicator 1.1, Annex 1, Table 5.1, Annex 5, Final Report). Of these young beiradeiros, 61% are male and 39% are female. Our goal was to train between 40 and 60 young people, with a 50% womens ratio.

These young people are already taking on different, qualified social and technical roles, and are actively partaking in decision-making processes within their local associations as well as in other relevant spheres. In 2022, when the baseline was established, there were 25 youth occupying varied public roles; this number had risen to 30 by 2023 and to 36 this year, which represents a 44% increase. Approximately 65% of this group – of which eight are female and four are male – took part in the training provided by the project (see Table 5.3, Annex 5, Final Report).² This thus includes unprecedented female leadership (Indicator 1.2).

A case in point is provided by the decisive participation of young female community leaders trained by the project at a local meeting. Illegal loggers' attempts to influence the local association's board to support logging activities within the reserve were thwarted as the young beiradeiro women informed participants of these loggers' hidden agendas and illegitimacy in the face stipulations of the local Consultation Protocol approved by the families themselves. This historic action curtailed a bid by illegal loggers to influence the local association.

For years, local association members had expressed concern about the absence of young people in decision-making spheres and in association boards. Now local association boards and advisers have expressed to project team members that they have felt a quantitative and qualitative change provided by the participation of young beiradeiros at community meetings and assemblies. Regrettably, this had not been included as a project indicator. But we wish to register that the "We are the Forest" project has led to beiradeiro youth participation – not only as spectators, but as protagonists, informing and clarifying important questions to their communities, such as those related to the Traditional Agroforestry System and to the Payment for Socio-environmental Services, as well as Consultation Protocols and socio-environmental monitoring and services.

In spite of our efforts, we did not reach the goal of achieving at least 50% female participation during the training modules. Notwithstanding, in light of training courses previously undertaken and gender relations within beiradeiro culture, we consider that significant progress regarding female participation was attained. Among our actions to achieve gender equality during the training course, we highlight the following strategies: 1) targeted, face-to-face invitations for young women to join the course as well as general invitations made in public spaces; 2) invitations to young couples when resistance against sole female participation was encountered; 3) hiring of a childminder to allow young mothers to concentrate during lessons; 4) providing a safe space for listening to young women's grievances during course modules; 5) always having female teachers on the team who serve as potential role models and/or could be seen as approachable to listen to young women's concerns; 6) discussion of issues and mechanisms related to gender violence and inequality, and of public policies geared to the safety and support of women during the sixth module (see Photos 5.22 to 5.24, Annex 5, Final Report).

In partnership with the Municipal Education Secretariat, we trained beiradeiro school teachers to offer a more respectful and culturally adequate education, making use of material prepared for young beiradeiros by the project (see Photos 5-7, Annex 4, Year 2 Annual Report). Integrating the teaching materials and pedagogic approach for an education based on the recognition of beiradeiro knowledge, history and practices, with content related to their reality and rights, Dr. Nurit Bensusan developed and produced three games that were distributed to each of the young beiradeiro training course participants (see photos 5.38 to 5.43, Annex 5, Final Report). These games were also distributed to some of the teachers who took part in the training in partnership with the Education Secretariat (see Photo 7, Annex 4, Year 2 Annual Report). These actions and activities had not been predicted at the start of the project.

During its Module 6, the project also trained **56** youth enrolled on the Territorial Management Course (36% females and 64% males) in solar-powered energy and electrical installations. The training was undertaken in partnership with, and was certified by Lins University experts. This is another important result, since most beiradeiro families from the Terra do Meio do not have access to electrical power supplies. A Federal Government program is about to guarantee this right through the implementation of solar powered energy, however. The young people trained

² For further information on the course and its modules, its methodology, teachers and content please see Annex n° 5.

through the project will now be able to support their families by installing and maintaining this equipment (see Photos 5.28 to 5.32, Annex 5, Final Report).

Another initially unforeseen outcome was the training of young beiradeiros in the art of rubber tapping. From an idea borne out of the Territorial Management Course, we developed a pilot project to pay for Environmental Services in the Native Rubber Chain. This traditional occupation was gradually being abandoned: younger generations were no longer familiar with it. So that this initiative could bear fruit, experienced beiradeiro rubber tappers trained 31 young beiradeiros in this traditional trade (see photos 5.36 and 5.37 and Attendance list 5.8, Annex 5, Final Report). This has resulted in 8 young beiradeiros now working with this occupation, who are apt to receive payments for Environmental Services associated with this product, crucial as it is to the beiradeiro Traditional Agroforestry System (see Table 7.3, Annex 7, Final Report).

2. Formal recognition processes of the *colocação* agroforestry system, submitted to the proper government bodies, and raised, qualified and, when possible, monetarily valued socio-environmental services.

The formal recognition process of the beiradeiros' Traditional Agroforestry System (TAS) is advancing vis-à-vis the Brazilian Heritage Agency and the Globally Important Agricultural Heritage Systems (GIAHS) of the United Nations Food and Agriculture Organization (FAO), achieving significant results. The conclusion of the prior consultation process relating to this matter, in accordance with beiradeiro meeting schedules, was made possible thanks to the technical and organisational support offered by the associations involved, and includes the commendable participation of participants from the Territorial Management Course.

In early 2023, representatives of beiradeiro associations and ISA travelled to Belém, the capital of Pará state, to request the Brazilian Heritage Agency's (IPHAN, Brazilian acronym) recognition of their TAS. At that moment, the IPHAN faced severe challenges caused by underfunding and disruption inherited from the previous government, which impeded the beginning of the registration process. This difficulty led us to focus our efforts upon FAO's GIAHS program. With the support of specialised consultant Dr. Laura Santonieri, we prepared the documentation and established the necessary connections with institutions involved in the process, including the IPHAN.

Following this successful liaison, we reestablished dialogue with IPHAN, undertaking two online meetings (on 10/04/2024 and 12/07/2024) and an in-person meeting of beiradeiro representatives to the IPHAN's Pará Superintendency in mid-July 2024 in order to deliver the request for registration in person (see Report 6.2 and Photo 6.1, Annex 6, Final Report). The procedure is now underway as the IPHAN has begun preliminary analyses of the documents. Simultaneously, we contacted Dr. Patrícia Bustamante, of the Brazilian Farming Agency (EMBRAPA, Brazilian acronym), who integrated the Rome GIAHS scientific committee for nine years. Both Dr. Bustamante and the IPHAN technical team confirmed that the "*Terra do Meio: saberes e práticas dos Beiradeiros do Rio Iriri e Riozinho do Anfrísio*" publication (Indicator 2.1) can serve to underpin the dossier produced to request the register of the beiradeiros' TAS by IPHAN and FAO. The archaeological research undertaken during the project (see Report 7.6, Annex 7, Final Report) will be incorporated into the dossier, making this the first dossier of its kind to incorporate archaeological evidence. Therefore, it empowers the request and offers an additional layer of protection to the beiradeiro territories, since archaeological sites, the communities rights and cultural heritage will be protected by Brazilian and international legislation.

Another relevant outcome of the project was ISA's participation in an interinstitutional work group, representing the beiradeiro TAS at a working group meeting to create a call by the Brazilian Development Bank to register Amazonian TAS in the GIAHS Program at COP-30, to take place in November 2025. On this occasion, ISA presented the beiradeiro TAS (see presentation 8.1, Annex 8, Final Report), which was then selected as one of the five TAS that will receive technical and financial support to constitute their candidatures' documentation. Besides advancing in the TAS' formal recognition process, the participation of the group led by Dr. Bustamante allowed ISA to integrate itself in the interinstitutional effort to formulate public policies that promote the

visibility and recognition of traditional agroforestry systems in a systematic manner – including the creation of a TAS Observatory, integrated to the IPHAN's National Inventory of Cultural Assets (see details of meetings, the presentation of the beiradeiro TAS and IPHAN documents in Report 6.2, Annex 6, Final Report). The FAO form for GIAHS candidature, which is being worked on, can be found in Report 6.3, Annex 6, Final Report.

The socio-environmental services associated with the TAS were surveyed and qualified. In the case of rubber production, these services were monetarily valued (Indicator 2.2). We established a partnership with a research project conducted by São Paulo and Greenwich Universities, which resulted in the identification of environmental services provided by the beiradeiro TAS and of its indicators based on the Monitoring System we developed alongside the beiradeiros (Indicator 2.2). We identified four indicators related to food production; six indicators related to fishing activities; six indicators related to agricultural practices and 13 indicators related to extractive activities in the forest, all of which are connected with the system of production (see table 6.1 and image 6.1, Annex 6, Final Report).

Besides this, we published guidelines and videos on the socio-environmental contributions of local peoples and their territories towards conservation and biodiversity, as well as scientific articles related to these and other questions worked on by the project, listed in Table 2, Annex 3 (Indicator 2.3) (guidelines, videos and short films). A website with quality of life and conservation indicators related to the *colocação* areas is also available (see Reports 7.1 and 7.2, Annex 7, Final Report).

3. Monitoring system of biodiversity and quality of life developed and undertaken by the beiradeiros themselves.

The Biodiversity and Quality of Life Monitoring System is established (Indicator 3.2) [REDACTED] – see Reports 7.1 and 7.2, Forms 7.1 to 7.4, Annex 7, Final Report). It is integrated by 37 young beiradeiros, of whom 57% are male and 43% are female, who are acting within different localities of their territory (Indicator 3.1, see table 7.1, Annex 7, Final Report)). Two annual bulletins have been launched that contain aggregate results pertaining to food, to families' daily activities, to biodiversity (Monitoring and beiradeiro trails Program), vegetative cover and the production of non-timber forest products commercialised by the families of the Terra do Meio Network. The beiradeiros take part directly in data gathering pertaining to food and to daily biodiversity monitoring activities by using indicators related to fauna that value their knowledge and experience (Indicator 3.4, see photo 7.1, Report 7.3, Annex 7, Final Report). The vegetative coverage data for the bulletins are prepared by the SIRAD X team, and the production data are supplied by the Terra do Meio network (see Reports 7.1 to 7.6; Forms 7.1 to 7.4 and Photo 7.1, Annex 7, Final Report). An extensive collaborative network for analysis and monitoring of improvements is being built with university researchers and lecturers from Brazilian public universities. Monitoring is in itself a territorial management tool and a socio-environmental service provided by the communities, which needs to be amplified to other associations and partners of the Terra do Meio Network.

The research project between Brazilian and UK researchers cited in the previous section, funded by the UK Research Academy, has also contributed towards bettering the Biodiversity and Quality of Life Monitoring System in the Terra do Meio. In July 2024, a workshop between project members, the ISA team and research partners based at UFOPA and UFPA took place to analyse the monitoring indicators (see reports in Annex 7 and presentations 8.4 to 8.6, Annex 8, Final Report). The project's team has further presented a new research proposal to the UK Research Academy, which if approved will last for four years and enable collaboration with ISA to continue with the Biodiversity and Quality of Life Monitoring System.

Another crucial question of our monitoring system was the development with the beiradeiros of biodiversity monitoring related to fauna that can be fulfilled by the beiradeiros themselves that makes use of and values their knowledge of animals (Indicator 3.4, see Report 7.3, photo 7.1, Annex 7, Final Report).

During the project's first year, we established the sample and recruited wildlife monitors, many of whom had already acquired experience with the ICMBio's Monitora Program and with the UFPA research group. The objective was not only to keep the group active, but also to train new monitors, particularly among young people. The monitoring campaigns were planned to coincide with the end of the rainy season and the start of the dry season, in alignment with those run by the ICMBio to facilitate logistical support and the exchange of knowledge.

In January 2024 we undertook the Fifth Territorial Management Course in the Terra do Meio Extractive Reserves, training 25 monitors to use the ODK App and in the Beiradeiro Protocol. Twelve of these monitors participated directly in the monitoring campaign between May and June of 2024 in the Riozinho do Anfrísio and Rio Iriri Extractive Reserves. The rise in the number of monitors allowed the exploration of new trails and the inclusion of more remote communities, such as those in the RESEX Riozinho do Anfrísio, which had not been visited in 2023. We hope that the training allows for the execution of the monitoring protocol independently from the presence of academic researchers. We consider that these objectives were obtained successfully, and the partnership with researchers from UFPA will continue (evidence presented in Reports 5.3, Annex 5, Report 7.3, Table 7.1 and Photo 7.1, Annex 7, Final Report).

3.2 Outcome

Socio-environmental services provided by the recognized *beiradeiro* agroforestry system, generating better income to 300 *beiradeiro* families and conservation of 1.5 million hectares of a high biodiversity forest.

We have successfully achieved the overall result, as addressed at the start of Section 3 above and in the outputs listed subsequently. Not all indicators have been achieved; we comment on each of them below.

Outcome 0.1: We predicted a 15% increase in revenue of the Entrepôts Network (Terra do Meio Network) compared to the baseline of R\$ 980,000.00 in 2020.

The revenue of the Terra do Meio Network has in fact increased to R\$1,489,519.70 in 2022 (see Outcome 0.1 in Year 2 Annual Report) and then to R\$2,003,968.64 in 2023 (see Table 7.2, Annex 7, Final Report), totalling a 104% increase since 2020, or up 35% when compared to the beginning of the project in 2022.

Outcome 0.2: We predicted an increase in the number of contracts that add value to the socio-environmental gains associated with the productive system, from a baseline of no contracts in 2020 to three contracts in 2023.

Contracts including values related to socio-environmental services have increased during the project, going from 0 in 2020 to 3 in 2024. One contract is focused on the seeds value chain (seeds used for reforestation), as part of a project to provide payment for socio-environmental services supported by the National Agency of Waters (ANA) in Brazil and the Amazon Cooperation Treaty Organization (ACTO). Another two contracts are related to the rubber value chain. One company acquires rubber from *beiradeiro* and indigenous peoples, valuing socio-environmental services (R\$3.00 go towards the rubber itself while R\$12.00 are paid as recognition for socio-environmental services). With the support of Rainforest Foundation Norway, another PES pilot is underway. An extra R\$10.00 per kilogram is added to each kilo of rubber when the rubber tapper reaches 300 kg of production. That amount corresponds to 30 days of work in the forest, providing services related to rubber extraction, such as surveillance, biodiversity conservation, and traditional knowledge (see Table 7.3, Annex 7, Final Report).

Furthermore, it is important to highlight that our actions in developing PES pilots and the monitoring system for socio-environmental service indicators have led to negotiations and procedures for extending the PES model being tested for other non-timber forest product chains. Rede Terra do Meio was invited by the Pará State Environmental Secretariat (SEMAS) to develop a pilot program for PES directed at collectively-owned territories. ISA is taking part in the conversations as advisor of the Rede Terra do Meio. The previous contracts and pilots and the monitoring system were key to the interest of Pará State in the partnership.

Outcome 0.3: We predicted preservation of the high index of forest coverage in areas used by the communities in comparison to invaded areas.

The baseline was established in 2022 with SIRADX data: 1378 hectares (ha) of deforestation related to illegal and predatory activities against 117ha of deforestation related to beiradeiro's land use (agricultural plots and house gardens) at the three RESEX. In 2023, with data from 2022, the area deforested by predatory activities increased to 1867ha, compared to 144ha of deforestation related to the beiradeiro's land use. In 2024, the area deforested by predatory activities increased to 1988ha, against 178.06ha of deforestation related to swiddens (see Report 7.4, Annex 7 of this Final Report).

The vegetation cover data in areas used by the beiradeiros have not remained stable over the project's duration (see Report 7.4, Annex 7, Final Report). There is a decrease in deforestation for agricultural plots from 2020 to 2022 and an increase in 2023 at the three reserves. At the three Resex, there was an increase in deforested areas for agricultural plots in 2023. It is important to note these areas will soon be regenerated, as they are part of the traditional swidden agriculture that integrates the beiradeiro TAS, which is common in the Amazon.

Additionally, in the Riozinho Extractive Reserve, this increase in agricultural plots is accompanied by a decrease in areas deforested by illegal invasions (see Report 7.4, Annex 7, Final Report). These results can be explained by factors beyond the project's control and may have multiple interpretations. The price of cassava flour increased in the local market, particularly between 2022 and 2023. These crop fields are primarily used for cassava flour production, partly for household consumption and partly for commercial purposes. This can help explaining the trend of larger crop fields opened up in 2023.

At the same time, the data related to the maintenance or even reduction in invaded areas can be attributed to several factors. One is the Brazilian government change. During the previous administration, the dismantling of enforcement and control actions led to an increase of invasions, and many Beiradeiros were drawn into illegal activities, dedicating less time to traditional activities like crop cultivation. Under the current government, enforcement and surveillance actions have been reinstated. Along with cassava flour prices, this can help explaining the decrease in invasions while crop fields are resumed. Therefore, the resurgence of crop fields can be seen as a return to traditional activities and could be related to an abandonment of illegal activities.

Outcome 0.4: We predicted a maintenance of occupancy rates, species richness and diversity of terrestrial vertebrates data, gathered via signs and traces of animals and beiradeiros' transects and tracks (Benchimol and Peres, 2015, Fragoso et al., 2016; 2019)

Over the years we have registered 1623 records of a total of 37 "eco-species" among terrestrial birds and mammals (see Annex 5). The most common mammal species was the Agouti (*Dasyprocta sp.*), with 229 records and genus *Crypturellus* was the most common among game birds, with 109 records. Of the 37 species found, 32 were detected through sightings and visualisations (SV) and 25 through tracks and signs (TS). Twelve species are exclusive to the first method, and five to the second. Indirect records accounted for 69.2% (n = 1123) of total records, and the sighting and vocalisation recording method accounted for 30.8% of records (n = 500). It is important to consider that the effort, in terms of distance walked searching for direct and indirect observations, were different, as mentioned above, with nearly three times more searches done solely (SV) compared to the distances walking in search of TS concomitantly. Thus, the mean number of observations per kilometre surveyed was 1,26/10km for direct observations and 2,85/10km for indirect observations, respectively. Only the genus *Crypturellus* and *Dasyprocta sp.* had rates higher than 1,0/10km for both methods.

Between the trails used by residents and those used by ICMBio, we observed more richness of species on the beiradeiro trails (33) than on the researcher trails (31). The Shannon's diversity index, which considers the proportion of the number of individuals as a function of the number of species, was similar between the treatments, being higher for the researcher's areas ($H' = 2.886$ and $H' = 2.755$, respectively). Equitability (J, Pielou index) was also calculated to assess the distribution in the proportion of the relative abundances of the taxa among the treatments, ranging from 0 to 1, where a value close to 1 indicates similar relative abundances among the taxa and

as it decreases there is a lower proportion among the species. This index was similar between the two groups of trails ($J = 0.787$; $J = 0.840$, for Beiradeiros and ICMBio trails, respectively).

We used a Student's t-test for the species with the highest number of records per 10/km for the two areas (> 1.0) to assess whether there was a significant difference in their relative abundances. Nine species met this requirement for both trails: *Crypturellus* spp., *D. kappleri*, *D. novemcinctus*, *Dasyprocta* sp., *D. tajacu*, *S. apella*, *T. pecari*, and *T. terrestris*. The t-test showed a significant difference between the abundance of the areas ($t = -2.4412$, $p\text{-value} = 0.03$), with the average abundance for these species being higher for the areas of use (mean = 4.99/10km) than for the research trails (mean = 2.47/10km). We used a permutational analysis of variance (PERMANOVA) to assess whether there was a difference between the species composition, which proved to be significant ($F = 3.763$, $p = 0.001$). A multivariate permutation dispersion analysis (PERMDISP) showed that there is homogeneity between the groups, indicating that the difference is indeed between the trails ($P = 0.717$) (see Report 7.3, Annex 7, Final Report for more details).

The study finds that beiradeiro occupations maintain similar wildlife biodiversity and show higher abundance of many species compared to surrounding primary forests, although composition is slightly different, species richness remains consistent. The research methodology, which includes detecting animals from indirect evidence rather than just sightings, addresses previous biases related to animal behaviour in hunted versus non-hunted areas. However, the findings should be interpreted cautiously due to varying human impacts along different stretches of the Xingu and Iriri rivers. Overall, the results align with the Darwin Initiative's observations on the benefits of socio-biodiversity and ecosystem services maintained by local communities (evidence is provided in Report 7.3, Annex 7 of this Final Report).

3.3 Monitoring of assumptions

To guarantee successful execution, it has been vital to monitor assumptions throughout the project's duration. In large measure these assumptions related to what the previous Brazilian government's stance was in relation to environmental conservation and traditional peoples. Another important part of our assumptions related to climatic conditions, seasonal variations and alterations in the environment that could impact project execution, particularly with respect to our schedule and logistical planning. Finally, a considerable share of our assumptions related to direct pressure over beiradeiro territories and families. By keeping careful track of our assumptions, we were able to reorient and reschedule actions, reducing potential knock-on effects upon project execution and actions.

A situation that we did not initially register was the difficulty in establishing formal partnerships with ICMBio and universities, particularly during the Bolsonaro government. During this period, non-governmental institutions – especially those acting in the socio-environmental sector – suffered a series of severe attacks, with the use of different tactics. One of these was the difficulty in establishing partnerships with federal entities such as universities and the ICMBio. As occurred with the IPHAN and the request for recognition of the beiradeiro TAS as Brazilian intangible heritage, we were forced to wait for a more favourable political scenario to engage these formal partnerships. Even so under the current government what we witnessed with IPHAN was replicated: public institutions have taken some time to reorganise themselves. Furthermore, even in the face of a more favourable political situation, bureaucratic protocols mean it still takes time to set up formal partnerships, reaching beyond the project's execution period.

We did not foresee, as we mentioned earlier, the abrupt increase in the price of cassava flour throughout the region, which triggered an increase in planting areas in recent years by the beiradeiros.

3.4 Impact

Impact: The beiradeiro way of life recognized and respected, fostering biodiversity conservation, better income, quality of life for their families, and generating opportunities for young people in their territories.

The project contributed to positive impacts in a challenging context of dismantling environmental policies in Brazil and a significant increase in deforestation and degradation of the Amazon. In terms

of biodiversity protection, the training of young people on their rights and the rules for managing protected areas was crucial in preventing further encroachment of predatory activities on the forest (see item 3.1.1). This training will also have a long-lasting impact on the governance and management of these territories, with a new generation ready to take on prominent roles in their communities and associations. The project also saw the highest female participation in similar activities conducted previously in the Resex areas, creating opportunities for new female leaders to emerge.

In recent years, there has been growing interest from businesses and governments in conservation and forest agendas. Consequently, proposals for financial mechanisms to support conservation communities have begun to reach these territories. However, there are still many uncertainties among governments and businesses about how to support these communities and measure the impact of investments. Strengthening the Terra do Meio Network and developing a quality of life and environmental monitoring system was crucial for the beiradeiros of Terra do Meio to get ahead in accessing these opportunities, attracting resources and partnerships for payment for environmental services experiences (see comments on Outcome 0.2). The Terra do Meio Network doubled its revenue and is now working with the government of Pará state to propose a pilot program for payments for environmental services in collective territories, which will form the basis for a future program for all collective territories in the state (Outcomes 0.1 and 0.2).

The income of some families accessing the newly created PES mechanisms has doubled, and additional income opportunities have been created, especially for young people (see item 4.2). With improved training and understanding of history, identity, and conservation, young people have taken on more jobs and representation roles in their communities, almost doubling their participation (see item 3.1.1).

A highlight of the monitoring system is the application of traditional knowledge for biodiversity monitoring along beiradeiro trails, comparing the effectiveness of different monitoring methods. So far, results have indicated that beiradeiro monitoring produces similar outcomes to more expensive methods that involve less local community participation. While we still need to increase our data series, the results so far are promising for the enhancement of national biodiversity monitoring programs in protected areas with local communities (Outcome 0.4). Another highlight of the monitoring system's creation is the consolidation of a cooperation network between universities and riverine associations, which is helping advance the development of environmental service payment mechanisms that can create markets for traditional communities. This cooperation network remains active and is a legacy of the project.

We also succeeded in increasing the visibility of communities in public conservation debates, both by ensuring their greater participation in public policy formulation (such as in the National Council of Traditional Peoples and Communities or in the creation of a PES pilot project for Pará state) and in beginning to recognize their way of life as a system that generates conservation, food security, and socio-biodiversity, alongside national (IPHAN) and international (FAO – see item 3.1.2) organizations.

All of these activities contribute towards the conception of models that are replicable throughout the Amazon, resolving historic operational issues, connected to forest productive chains and to community wellbeing. These experiences are capable of feeding into public policy with a transformative potential of the region's dynamics. Ensuring income and quality of life in protected areas is one of the most effective ways to conserve ecosystems and biodiversity in the Amazon. The role that communities play in conservation is clear when one looks at the map of inhabited protected areas in regions with the highest deforestation rates of the Amazon³.

³ Between March 21 and 22, 2024, in Altamira, Pará, Brazilian Amazon, ISA's Altamira office and the Terra do Meio Network presented the main strategies, activities, and results of their actions towards this broader strategy related to the impact proposed by our project to representatives from DEFRA, DESNZ, FCDO. Dr. Roberto Rezende (coordinator of ISA's Xingu Program and this project) presented ISA (see presentation 8.2, Annex 8, Final Report), Clara Baitelo (Terra do Meio Network) and Luciana Lima (TNC and executive secretary of the Terra do Meio Network) presented the Terra do Meio Network (see presentation 8.3, Annex 8, Final Report). The Terra do Meio Network and ISA emphasised the need to create mechanisms that remunerate socio-environmental services associated with supply chains and the way of life, proposing a PSA fund and structuring the monitoring carried out in our project, which would serve as the basis for indicators to attract resources and demonstrate the continuity of socio-environmental services. (see attached photos and representatives from DEFRA and DESNZ)

4 Contribution to Darwin Initiative Programme Objectives

4.1 Project support to the Conventions, Treaties or Agreements

Over the years of the project, the implementation of Article 8 of the Convention on Biological Diversity (CBD) has been reinforced, particularly its items "c" and "j". These provisions and advancements in implementation directly align with the new Global Biodiversity Framework, especially with goals 3, 9, 11, 13, 14, and 22. Respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles are relevant for reducing poverty and the conservation and sustainable use of biological diversity, threatened by illegal activities and climate change.

The knowledge of biodiversity shared in the exchanges between traditional communities experienced during the territorial management course, as well as the identification of gaps in public policies related to the valorization of traditional agroforestry production, have enabled the young participants to contribute to improve public policies such as the new Brazilian Plan of National Actions on Biodiversity (NBSAP), and the payment for environmental services (PSA).

The work during the project of recognition of Terra do Meio Beiradeiros TAS as intangible cultural heritage of Brazil by IPHAN and potentially also by GIAHS/FAO has advanced into many suggestions to improve and facilitate the process of recognition. These contributions led to new possibilities such as the registration of this TAS in IPHAN's National Inventory of Cultural References and its prioritisation as a national focal point in GIAHS process.

4.2 Project support for multidimensional poverty reduction

In section 3 of this report, we highlighted some of the dimensions of poverty that we combat in our project. Our project directly and indirectly addressed multidimensional poverty reduction. We built a way to enable the recognition, qualification, measurement and remuneration of socio-environmental services provided by the Beiradeiro TAS, making it possible to pay for these services to these families. This supports the reduction of poverty among Beiradeiros and will soon impact all territories that compose the Rede Terra do Meio. We elaborated a pilot study to pay environmental services for the production of rubber and promoted a training with elderly producers to teach young beiradeiros their traditional production system related to the rubber chain. It was important to revive a tradition that was almost forgotten and engage more young people, therefore some families' income doubled. (see attendance list 5.8, photos 5.36 and 5.37, Annex 5 and Table 7.3, Annex 7 of this Final Report).

In addition to rubber training, the management course also trained young people to perform paid activities in their communities, increasing income generation opportunities for families. One such activity is the monitoring service provided by young people, which involves overseeing their families' nutrition and work, as well as biodiversity trails (see Annex 7, Final Report). Another is the increased participation of young people in roles such as microscopists, health agents, and school staff. (see Table 5.3, Annex 5 of this Final Report). We also provided training in residential electrical installations and photovoltaic energy. Young people who have been certificated from our training can take on such functions and services, generating income locally (see photos 5.28 to 5.32, Annex 5, Final Report).

4.3 Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ⁴ .	66,7%
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ⁵ .	50%

⁴ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

⁵ Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

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

The project council consists of Dr. Roberto Rezende, Dr. Nurit Bensunsan, Dr. Bruna Rocha, Fabiola Silva, and Dr. Augusto Postigo. The main partners of the project were the beiradeiros associations (leadered mostly by men), UFPA (leadered by men), and UFOPA (leadered by women). Gender issues have been central since the project's conception. One of our main activities was the training of young beiradeiros, where, despite cultural issues, we aimed for at least 50% participation of young women. Various strategies to achieve this were described in previous reports, such as ensuring caregivers chosen by the mothers to care for their children while they participated in the training. In the group of trained monitors, we also aimed for a minimum of 50% women. We had specific discussions during the course and in our educational materials regarding gender issues and rights.

4.4 Transfer of knowledge

The project has generated knowledge in collaboration with the beiradeiros communities and the scientific team. Some educational material such as workbooks were elaborated in 15 modules of the territorial management course and one for teachers training (see Annex 5, Year 1 Annual Report; photo 16, Annex 4, Year 2 Annual Report; and Table 5.2, Workbook 5.1 to 5.3, Annex 5, Final Report). Another significant component was the archaeological research conducted and disseminated in various scientific formats (see Report 7.6, Annex 7, Final Report). Equally important is the monitoring system itself, its analysis and collaborative research carried out with the young beiradeiros (see Annex 7, Final Report). Additionally, there have been communications in media reports, such as those related to archaeological work. Another method of knowledge production and dissemination revolves around documents and images related to the beiradeiros TAS for both the general public and the recognition process itself (see Annex 6, Final Report). Biodiversity data were collected in partnership with the Monitora program and submitted to the government's official database (see Letter 8.1, Annex 8, Final Report). The program's data are available on the [REDACTED] (updated until 2022).

4.5 Capacity building

We carried out training for young beiradeiros and teachers to qualify them to engage in their associations, public works and important networks (see Annex 5, Final Report). For example, young beiradeiros of the management course were selected to: 1- join boards within their associations; 2- become communicators for the Xingu + Network; 3- join the national council of traditional peoples and communities; 4- participate in the Samaúma journalism program; 5- participate in monitoring (see table 5.3, Annex 5; table 7.1, Annex 7, Final Report).

5 Monitoring and evaluation

We did not make significant changes to the project's logical framework and conception (see Annex 2). The Monitoring and Evaluation (M&E) system was very useful to evaluate the project. However, as indicated in our proposal, we may not have chosen optimal outcome and output indicators. However, we have learned from this evaluation process and from the proposed M&E methodology. We shared part of the M&E work with partners because the indicators depended on their activities and data.

6 Lessons learnt

Due mainly to pandemic isolation, we were unable to conduct in-depth face-to-face project development discussions with our partners. During the project, we realised that formal partnership processes, especially with the government and its agencies, depend on lengthy coordination and considerable time for bureaucratic procedures. This hindered some of our actions in partnering with ICMBio and universities, although it did not compromise results.

Maintaining a high-level technical team engaged with partners such as universities, beiradeiros associations, ICMBio, and consultants was crucial and productive. This was decisive for the excellent execution of the project and itself constitutes a fundamental legacy that will sustain these outcomes. These partnerships are being formalised and will ensure the continuity of the work and collaboration.

7 Actions taken in response to Annual Report reviews

We responded effectively to the reviewers' recommendations by developing indices that enabled us to evaluate the status of large vertebrates in the vicinity of the *colocações*. Specifically, we utilised analyses to measure relative abundance and diversity, as well as to compare species compositions (see Report 7.3, Annex 7, Final Report). These indices are crucial parameters for future projects in the region.

Regarding occupancy indices, we did not generate them based on the baseline data, as they were derived from ICMBio's "advanced protocol" camera traps, which were not available for the Beiradeiro Trails. However, biologists from the Federal University of Pará are currently working on a paper related to the project, focusing on assessing the compatibility between the Beiradeiro protocol and the advanced protocol for spatial species monitoring. Since this research is still in the phase of statistical analysis, only preliminary results were presented in Report 7.3, Annex 7, Final Report.

8 Sustainability and Legacy

This project leaves a fundamental legacy for the Beiradeiros of Terra do Meio, the Terra do Meio Network, and potentially many other indigenous peoples in the Amazon. One of the greatest challenges today for poverty reduction and biodiversity conservation, is to ensure that a standing forest economy is truly promoted. This must guarantee that both Amazonian biodiversity and sociodiversity are valued, enabling traditional and indigenous peoples to have more quality of life and better income from their traditional agroforestry systems.

Based on our extensive experience and knowledge over more than twenty years in various regions of the Amazon, this can only be achieved when the socio-environmental services provided by these peoples and territories are recognized and adequately remunerated. It is essential that their non-timber forest products account for these crucial services in their production costs. Certain conditions are necessary for this to occur: the cultures and territories of these peoples must be recognized and protected; these services need to be qualified and valued, leading to appropriate income; the continuity and quality of these services over time must be monitored; there must be ongoing dialogue between traditional knowledge and scientific knowledge; the management of these processes and systems should be in the hands of their providers, with technical support and information.

Our project has established essential conditions in a key biodiversity region initiating Payment for Ecosystem Services (PES) pilot projects and the recognition of the Beiradeiro Agroforestry System (SAT) as a GIAHS. The young Beiradeiros trained by our project are gradually assuming

many public and leadership positions and their contributions to their communities and conservation will be long lasting. We will continue our long-term work with the Beiradeiros to consolidate and expand all these achievements.

9 Darwin Initiative identity

The support from the Darwin Initiative was prominently featured and highlighted in various presentations and lectures about the project. This included a meeting with British government representatives in Altamira (see presentations 8.2 and 8.3, Annex 8, Final Report). The Darwin Initiative logo was displayed on students notebooks (Annex 5, Year 1 Annual Report; photo 16, Annex 4, Year 2 Annual Report; and Table 5.2, Workbook 5.1 to 5.3, Annex 5, Final Report) and is displayed on the Monitoring website (Report 7.1 and 7.2, Annex 7, Final Report). References to the Initiative's support are included in news about the project⁶. Additionally, Darwin Initiative support was communicated to governmental institutions such as ICMBio (see Letter 8.1, Annex 8, Final Report) and IPHAN (see presentation 8.1, Annex 8, photo 6.1 and Report 6.2, Annex 6, Final Report).

10 Risk Management

There were not observed new risks in the last 15 months.

11 Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes, the institution update its policies frequently and the safeguardings are included
Have any concerns been investigated in the past 12 months	Yes/No No.
Does your project have a Safeguarding focal point?	Yes, the focal point for safeguarding and to guarantee the institutional policies is the Program Coordinator: Roberto [REDACTED]. We also have a committee for safeguarding.
Has the focal point attended any formal training in the last 12 months?	Yes. The institution code of ethics was concluded in December 2022 and the staff received formal training. The coordinators of the institution are responsible to verify if the norms are being followed and discuss specific situations in meetings. In March 2024, the coordinators discussed the improvement of the code of ethics.
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 55%,9 Planned: 0%
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. We have created new instances to report health, safety and security issues and it improved the well-being of the staff and partners.	
Please describe any community sensitisation that has taken place over the lifetime of the project; include topics covered and number of participants. In Module 6 of the Territorial Management Course, the Movement of Working Women of Urban and Rural areas of Altamira carried out a community sensitization for 56 young	

⁶ [REDACTED]

beiradeiros about ways to report domestic violence, how to create a support network for women who live and experience these problems and advocating for women's rights.

Have there been any concerns around Health, Safety and Security of your staff over the lifetime of the project? If yes, please outline how this was resolved.

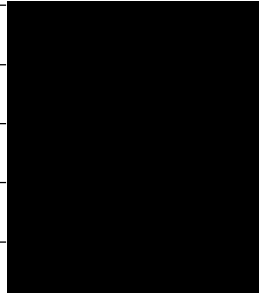
No.

12 Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual Darwin Initiative Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				The same company conducting our Institutional Audit will also handle the specific audit for this project, allowing us to benefit from cost savings through a consolidated proposal. For this reason, we do not have the exact value and specific tax documentation for this audit. The audit will be paid for with other institutional resources. We then chose to use the unused amount in this case for small supplements needed in other budget lines
Travel and subsistence				
Operating Cost				
Capital item (see below)				
Others (see below)				
TOTAL	£36.884	£36.884		

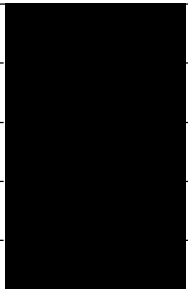
Staff employed	Cost
-----------------------	-------------

(Name and position)	(£)
Augusto de Arruda Postigo - Technical and Fieldwork Coordinator	
Idnara Dallarosa - Project Logistics Support	
Community Socio-environmental Monitor	
Roberto Sanches Rezende - Project Leader	
Roberto Santos Almeida - Communications Analyst	
TOTAL	

Capital items – description	Capital items – cost (£)
—	—
TOTAL	

Other items – description	Other items – cost (£)
Exchange rates	£140
TOTAL	£140

12.2 Additional funds or in-kind contributions secured

Matched funding leveraged by the partners to deliver the project	Total (£)
Rainforest Norway	
European Commission	
Arapyau	
Charles Stewart Mott Foundation	
Gordon and Betty Moore Foundation	
TOTAL	

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	Total (£)
Arapyau	£51.500
TOTAL	£51.500

12.3 Value for Money

The project achieved outcomes across multiple areas, including biodiversity conservation, quality of life improvements, income increases, governance in the Terra do Meio territory, and the strengthening of networks between communities and universities. Given the political context and the complex logistics and costs involved, we assess that this project offers high value for money. It has made a significant and diverse impact on the lives of beiradeiros communities, improved public policies, and contributed to the conservation of the Amazon rainforest.

This project was conducted in extremely isolated regions, resulting in very high logistics costs. Many activities were made possible by optimizing logistics and staffing across various projects and by leveraging common outcomes. We also partnered with community networks and local organizations with shared objectives to enhance results.






13 Other comments on progress not covered elsewhere

14 OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section.

"We are the forest" has created conditions for the peoples of the Amazon rainforest to value their history, knowledge, and way of life so they can live better and continue to conserve biodiversity. A key element of this effort is Payments for Environmental Services (PES). The way of life of these peoples and their Traditional Agroforestry Systems provide numerous environmental services that need to be recognized and compensated. In partnership with the beiradeiros of the Terra do Meio and academic researchers, we developed a life quality and environment monitoring system that is helping to identify, assess, and monitor these services and ensure fairly compensation. It has begun to provide young beiradeiros in this vast forested territory with a sense of future within their own land and culture.

This project is part of a strategy to influence public policies and extend its impact to other territories and local communities. Throughout the project, we have established connections that pave the way for future expansion and improvement.

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
Image		Beiradeiro students of the Territorial Management Course learning about maps, RESEX Riozinho do Anfrísio, Brazil, Natália Guerreiro		Yes
Image		Archeological fieldwork and analysis in the Territorial Management Course Manelito, RESEX Iriri Brazil, Alessandro Falco/Sumaúma		Yes
Image		Territorial Management Course activity using an educational game produced about the history of traditional people and communities, RESEX Riozinho do Anfrísio, Brazil, Natalia Guerrero		Yes
Image		Beiradeiro students using the monitoring system of quality of life and biodiversity conservation app, Terra do Meio, Brazil, Natalia Guerrero.		Yes
Image		Traditional Agroforestry Rubber production training Manelito, RESEX Iriri, Brazil, Alessandro Falco/Sumaúma		Yes

Annex 1 Report of progress and achievements against logframe for the life of the project

Project summary	Progress and achievements
<p>Impact</p> <p>The beiradeiro way of life recognized and respected, fostering biodiversity conservation, better income, quality of life for their families, and generating opportunities for young people in their territories.</p>	<p>The training of young beiradeiro on their rights and for managing protected areas impacted positively the biodiversity protection and was crucial to prevent predatory activities on the forest (evidence in 3.1). It has a long-stand impact on the governance and management of these territories, since young beiradeiros are ready to take prominent roles in their associations and public agencies. It also created opportunity for females leaders to emerge. Strengthening the Terra do Meio Network and developing a quality of life and environmental monitoring system was crucial for the beiradeiros of Terra do Meio to get ahead in accessing these opportunities, attracting resources and partnerships for payment for environmental services experiences (see comments on Outcome 0.2). The Terra do Meio Network doubled its revenue and is now working with the government of Pará state to propose a pilot program for payments for environmental services in collective territories, which will form the basis for a future program for all collective territories in the state (Outcomes 0.1 and 0.2). The income of some families accessing the newly created PES mechanisms has doubled, and additional income opportunities have been created, especially for young people (see item 3.2). A highlight of the monitoring system is the application of traditional knowledge for biodiversity monitoring along beiradeiro trails, comparing the effectiveness of different monitoring methods. We also succeeded in increasing the visibility of communities in public conservation debates, both by ensuring their greater participation in public policy formulation (such as in the National Council of Traditional Peoples and Communities or in the creation of a PES pilot project for Pará state) and in beginning to recognize their way of life as a system that generates conservation, food security, and socio-biodiversity, alongside national (IPHAN) and international (FAO – see item 3.1.2) organizations. See further evidence in section 3.4.</p>
<p>Outcome Socio-environmental services provided by the recognized beiradeiro agroforestry system, generating better income to 300 beiradeiro families and conservation of 1.5 million hectares of a high biodiversity forest.</p>	
<p>Outcome indicator 0.1: Revenues of the Network of Entrepôts increased in 15% compared to the baseline of R\$ 980,000.00 in 2020;</p>	<p>The revenue of the Terra do Meio Network have increased to R\$1,489,519.70 in 2022 (see Outcome 0.1 in Year 2 Annual Report) and them to R\$2,003,968.64 in 2023 (see Table 7.2, Annex 7 of this Final Report), a total of 104% since 2020, or 35% when compared to the beginning of the project in 2022. We believe the project impact is shown in the increase from 2022 to 2023 income.</p>
<p>Outcome indicator 0.2, Increase in the number of contracts that aggregate value to the socio-environmental values associated to the productive system, from a baseline of no contracts in 2020 to three in 2023;</p>	<p>Contracts involving values related to socio-environmental services have increased during the project, going from 0 in 2020 to 3 in 2024, in which 2 of them aggregate socio-environmental services to the rubber production and one of them to the seeds collecting and support of reforestation (evidence is provided in section 3.2 of this Final Report).</p>
<p>Outcome indicator 0.3: Keeping of the high index of forest coverage in the areas of community use compared to the invaded areas. The baseline will be settled in the first year of the project.</p>	<p>The baseline was established in 2022 with SIRADX data: 1378 hectares (ha) of deforestation related to illegal and predatory activities against 117ha of deforestation related to beiradeiro's land use (agricultural plots and house gardens) at the three RESEX. In 2023, with data from 2022, the area deforested by predatory activities increased to 1867ha, compared to 144ha of deforestation related to the beiradeiro's land use. In 2024, the</p>

	<p>area deforested by predatory activities increased to 1988ha, against 178.06ha of deforestation related to swiddens (see Report 7.4, Annex 7 of this Final Report).</p> <p>In all three Resex areas, there is an increase in deforested areas for crop fields in 2023. It is important to note that the deforestation related to these crop fields will soon be regenerated, as they are part of the traditional shifting cultivation (roça) practiced by TAS Beiradeiro, which is common in the Amazon. In addition, there was a decrease in deforested areas by illegal invasions in RESEX Riozinho do Anfrísio (evidence provided in section 3.2 and Report 7.4, Annex 7 of this Final Report). The price of cassava flour increased in the local market, particularly between 2022 and 2023. These crop fields are primarily used for cassava flour production, partly for household consumption and partly for commercial purposes. This partly explains the trend of larger crop fields opened in 2023.</p>
<p>Outcome indicator 0.4: Keeping of occupation rates, species richness and diversity of terrestrial vertebrates data, gathered via signs and traces of animals and beiradeiros' transects and tracks (Benchimol e Peres, 2015, Fragoso et al. 2016, 2019). The first year data will be the baseline.</p>	<p>Over the years we have registered 1623 records of a total of 37 “eco-species” among terrestrial birds and mammals, a concept adopted in cases where it is not possible to identify the animal at species level, grouping them together in relation to taxonomic or functional proximity. Of the 37 species found, 32 were detected through sightings and visualisations (SV) and 25 through tracks and signs (TS). 12 species are exclusive to the first method, and 5 to the second. Between the trails used by residents and those used by ICMBio, we observed more richness of species on the beiradeiro trails (33) than on the researcher trails (31). The beiradeiro occupations hold similar levels of wildlife biodiversity but show higher abundances for most of the species observed. Our results indicate that the beiradeiro territories and the surrounding primary forest are slightly different in wildlife species composition, but not species richness. Most of the species showed higher abundances when compared with the forest outside continuously used areas; however, the responses are not uniform across all species, some are more favourable than others (evidence is provided in section 3.2 and Report 7.3, Annex 7 of this Final Report).</p>
<p>Output 1 Young people trained in contents and skills to take over social and technical functions, to lead their associations and communities.</p>	
<p>Output indicator 1.1 Number of trained young people. Between 40 and 60 young people prepared to take over functions in their communities and associations (50% women) up to 2024;</p>	<p>Eighteen training modules were conducted for 60 students across three Extractive Reserves over three years, and the goal was successfully achieved. Participants varied somewhat between each round, but we had at least 49 attendees in each group of modules and 56 students got certification. At the outset, 102 young beiradeiros were enrolled in the course in 2022, and interest increased with each module, reaching a total of 170 candidates, including both women and men. Of the 170 young beiradeiro candidates, 39% were female and 61% were male. On average, fifty-five young beiradeiros participated in the training modules during the project period. Despite our efforts, we did not achieve the goal of having at least 50% female participation (evidence is provided in section 3.1; images 1, 2, 3, 4 in Annex 4 of the Year 1 Annual Report; images 4 to 9 and photos 12 to 19, Annex 4 in the Year 2 Annual Report; Annex 5 of the Final Report). However, we consider that we made significant progress in gender issues considering previous similar trainings we conducted and aspects of gender issues in Beiradeiro culture. We highlight the actions and efforts towards gender equity in section 3.1.</p> <p>In addition, 5 homework activities and 2 fieldworks were carried out between modules as a follow-up (evidence in photos 35 and 36, Annex 4, Year 2 Annual Report; and photos 5.34 and 5.35 and Report 5.4, Annex 5,</p>

	<p>Final Report). A rubber production training with 31 participants in the three RESEX was conducted. A teachers training course was carried out (see photos 5, 6, 7,, Annex 4, Year 2 Annual Report). Finally, an Electric installations and Solar Energy System training was carried out with 56 students during Module 6 (evidence in photo 5.28 to 5.32). Five workbooks were produced for the beiradeiro students and one for the teachers (evidence in Annex 5, Year 1 Annual Report; photo 16, Annex 4, Year 2 Annual Report; and Table 5.2, Workbook 5.1 to 5.3, Annex 5, Final Report). In addition, three educational games were produced to engage students in class (evidence in photos 5.38 to 5.43, Annex 5, Final Report)</p>
<p>Output indicator 1.2, Increase of 20% in young people occupying communitarian functions up to 2024, with baseline determined in the first year of project;</p>	<p>In 2022, when we established the baseline, there were 25 young people in various public roles. By 2023, this number had risen to 30 young people, and finally, in 2024, the number increased to 36, representing a 44% increase. Approximately 65% of the new young members participated in the training (evidence is provided in section 3.1 and Table 5.3, Annex 5 of this Final Report).</p>
<p>Output 2. Formal recognition processes of colocação agroforestry system, submitted to the proper government bodies, and raised, qualified and, when possible, monetarily valued socio-environmental services.</p>	
<p>Output indicator 2.1. Submission of one dossier for recognition of colocação traditional production system until 2024;</p>	<p>Assemblies and community meetings were carried out for consultation and planning the submission of the dossier (see Year 1 Annual Report and Year 2 Annual Report)</p> <p>The publication "Terra do Meio: knowledge and practices of the Beiradeiros of Iriri and Riozinho do Anfrísio" was considered a sufficient dossier (see section 3.1 and Annex 6 of this final report). Beiradeiro leaders visited the IPHAN/PA superintendence in Belém to deliver the signed Letter from the heritage holders and the publication, formalizing the request for registration of the Beiradeiro TAS (evidence is provided in section 3.1 and photo 6.1, Annex 6 of this Final Report). The procedure is now underway as the IPHAN has begun preliminary analyses of the documents. The archaeological research undertaken during the project (see Report 7.6, Annex 7, Final Report) will be incorporated into the dossier, making this the first dossier of its kind to incorporate archaeological evidence. Many meetings with IPHAN were carried out (evidence in Report 6.2, Annex 6, Final Report) and ISA participated in an interinstitutional work group, representing the beiradeiro TAS at a working group meeting to create a call by the Brazilian Development Bank to register Amazonian TAS in the GIAHS Program at COP-30. On this occasion, ISA presented the beiradeiro TAS (see presentation 8.1, Annex 8, Final Report), which was then selected as one of the five TAS that will receive technical and financial support to constitute their candidatures' documentation.</p>
<p>Output indicator 2.2: At least five socio-environmental services associated to the production system mapped and described until 2023;</p>	<p>We established a partnership with a project conducted by the University of São Paulo and Greenwich University, which resulted in the identification of potential monitoring indicators by the Beiradeiros monitoring system in Terra do Meio. We were able to identify 4 indicators related to food production, 6 indicators related to fishing practices, 6 indicators related to agricultural practices, and 13 indicators related to extractivism activities, all associated with their production system (evidence is provided in Table 6.1 and image 6.1, Annex 6 of this Final Report).</p>

Output indicator 2.3. Three publications (printed, audio-visual or scientific) on the colocação production system in Terra do Meio and its associated services until 2024;	Guidelines and videos on the socio-environmental contributions of traditional peoples and their territories to conservation and diversity published (guidelines , video , and short-video). Website with indicators of quality of life and conservation related to the colocações available (evidence is provided in Report 7.1 and 7.2, Annex 7 of this Final Report).
Output 3. Monitoring system of biodiversity and quality of life developed and undertaken by the beiradeiros themselves.	
Output indicator 3.1: 12 young people (50% women) prepared for data registering and analysis on environment sustainability and quality of life until 2024	After the monitoring system training carried in Territorial Management Course, we formed a group of 37 young people, comprising 57% men and 43% women (evidence is provided in section 3.1 and Reports 7.1 and 7.2, Forms 7.1 to 7.4, Table 7.1, photo 7.1, Annex 7 of this Final Report).
Output indicator 3.2: One monitoring system implemented until 2024;	We implemented the monitoring system - https://isa.to/3Wxd3LL , (see Reports 7.1 and 7.2, forms 7.1 to 7.4, Annex 7 of this Final Report)
Output indicator: 3.3: Two monitoring reports and evaluation on biodiversity and quality of life systemized until 2024 (one in 2023 and one in 2024);	We have five consolidated reports in Annex 7 of this Final Report.
Output indicator 3.4: Three fauna surveys using transects and beiradeiro tracks (one per year), training six young beiradeiros for the activity. Baseline: first year of the project.	In June 2022, the wildlife surveys were carried out on 21 different trails. (evidence in Annex 7 of the Year 2 Annual Report). In 2023, more wildlife surveys were carried out by Monitora Program in partnership with ICMBio. In 2024, a training was made with the beiradeiro students of the territorial management course and the last wildlife survey was carried out in May. It led to the formation of a group of 25 young beiradeiros trained and able to conduct fauna monitoring themselves (evidence provided in Report 7.3, Table 7.1 and photo 7.1, Annex 7 of this Final Report).

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>Impact: The beiradeiro way of life recognized and respected, fostering biodiversity conservation, better income, quality of life for their families, and generating opportunities for young people in their territories.</p>			
<p>Outcome: Socio-environmental services provided by the recognized beiradeiro agroforestry system, generating better income to 300 beiradeiro families and conservation of 1.5 million hectares of a high biodiversity forest.</p>	<p>0.1. Revenues of the Network of Entrepôts increased in 15% compared to the baseline of R\$ 980,000.00 in 2020; 0.2. Increase in the number of contracts that aggregate value to the socio-environmental values associated to the productive system, from a baseline of no contracts in 2020 to three in 2023; 0.3. Keeping of the high index of forest coverage in the areas of community use compared to the invaded areas. The baseline will be settled in the first year of the project. 0.4. Keeping of occupation rates, species richness and diversity of terrestrial vertebrates data, gathered via signs and traces of animals and beiradeiros’ transects and tracks (Benchimol e Peres, 2015, Fragoso et al. 2016, 2019). The first year data will be the baseline.</p>	<p>0.1. Commercialisation data registered by associations compatibility systems and Origens Brasil Network platform (https://www.origensbrasil.org.br/). 0.2. Report of the May annual meeting among beiradeiro producers and potential and actual commercial partners of Network of Entrepôts to settle or review contracts, and contracts settled yearly. 0.3. Monitoring of forest coverage via SIRAD-X and comparison of deforestation in beiradeiro and invaded areas. 0.4. a. Technical report with statistical analysis comparing the annual data on occupation rates, species richness and diversity of vertebrates among colocações; evaluating the possible effect of different intensities of hunting. 0.4. b. Technical report with statistical analysis comparing the annual data, from 2022 to 2024, on occupation rates, species richness and vertebrate diversity among the colocações and non-hunting areas monitored by ICMBIO.</p>	<p>Illegal activities like logging and mining compete with the beiradeiro dedication to their non-forest timber products. The income of these illegal activities are most of times higher than any legal activity.</p> <p>Strengthened communities. aware of the consequences of such activities for their territory and resources are fundamental, as well as the valuing of their legal products. We will work on these two factors in this project. But the presence of the state with its police power to restrain illegal activities and to protect the territory from invaders is another important factor in the decision to keep the traditional way of life.</p> <p>Unfortunately, the current Brazilian government has dismantled the protection and inspection bodies and does not curb illegal activities. The continuation of the environmental policies of the current Brazilian government must increase the external pressure on the communities and their territories.</p> <p>The increase of external pressure can also widen the forest loss, independently of communitarian efforts of fighting it off.</p> <p>Annual climatic variations might affect the production, revenues and income from the products.</p>

			The COVID-19 pandemic and the safety measures and permissions to stay in the communities might vary and delay activities.
Output 1 Young people trained in contents and skills to take over social and technical functions, to lead their associations and communities.	<p>1.1 Number of trained young people. Between 40 and 60 young people prepared to take over functions in their communities and associations (50% women) up to 2024;</p> <p>1.2 Increase of 20% in young people occupying communitarian functions up to 2024, with baseline determined in the first year of project;</p>	<p>1.1 Reports of teachers and technical coordination on the development of training and individual progress of students.</p> <p>1.2. Photographic record of the training; attendance list of students, with gender specification.</p> <p>1.3. Lists of communities and associations' social functions and of people that occupy them, discerning their age and gender, and stating if they took part in the training. For the first year of the project and in 2024.</p>	It is common for young beiradeiros to marry and have children before 20 and then to provide for a family. This is an important factor for the withdrawal from the training, which demands dedication to studies and absence from home to undergo the modules. This is especially serious for women that are under pressure from their husbands, children and neighbours to stay at home taking care of the domestic chores and children, which ends up hindering their participation in public events and travels like the training modules. Moreover, many husbands are jealous of their wives going outside, urging them to stay at home. These questions can be mitigated and coped with the strategies mentioned in the question on gender equality and also with the offering of modules shorter than the ones ISA has conducted previously in other training programs. Climatic variations might hamper navigation on the regional rivers and delay or even make it impossible to carry out any given scheduled module.
Output 2 Formal recognition processes of colocalização agroforestry system, submitted to the proper government bodies, and raised, qualified and, when possible, monetarily valued socio-environmental services.	<p>2.1 Submission of one dossier for recognition of colocalização traditional production system until 2024;</p> <p>2.2. At least five socio-environmental services associated to the production system mapped and described until 2023;</p>	<p>2.1 Submission receipt of the dossier and the audiovisual material to the IPHAN or to GIAHS.</p> <p>2.2. Reports of workshops and Interdisciplinary field trips to map and systematize the Agroforestry System and the socio-environmental and</p>	The formal recognition of the agricultural system obliges the state to develop actions and policies of safeguard and promotion of the system and its associated intangible culture, widening the legal defenses related to the territory and its conservation. The formal recognition strengthens the intangible

	<p>2.3 Three publications (printed, audio-visual or scientific) on the colocação production system in Terra do Meio and its associated services until 2024;</p>	<p>ecosystem services provided by this system</p> <p>2.3. One video up to five minutes with customized versions and messages to different media, defined from a disclosure strategy among the beiradeiros, ISA and their partners; one photo-essay on the beiradeiro way of life; one printed and digital version of the dossier for registration of the beiradeiro's traditional agroforestry system; one podcast series on the beiradeiro way of life, scientific journals.</p>	<p>values associated with the products and services</p> <p>provided by communities. However Brazil today faces a grave institutional crisis in which several public policy achievements have been reversed by the current government. The current government has been especially harmful with regard to public policies addressing minorities and environmental issues. In this sense we cannot be sure that the Brazilian Heritage Agency will continue to exist, along with its policies of recognition of Traditional Agroforestry Systems. This can hamper the process of formalisation of this demand.</p>
<p>Output 3 Monitoring system of biodiversity and quality of life developed and undertaken by the beiradeiros themselves</p>	<p>3.1 12 young people (50% women) prepared for data registering and analysis on environment sustainability and quality of life until 2024</p> <p>3.2. One monitoring system implemented until 2024;</p> <p>3.3. Two monitoring reports and evaluation on biodiversity and quality of life systemized until 2024 (one in 2023 and one in 2024);</p> <p>3.4. Three fauna surveys using transects and beiradeiro tracks (one per year), training six young beiradeiros for the activity. Baseline: first year of the project.</p>	<p>3.1. Reports on training modules; lists of trained students; records made by beiradeiro students each semester.</p> <p>3.2. Consolidation and analyses of data registered each semester by the system;</p> <p>3.3. Annual document with analyses of data accumulated in beiradeiro students' records.</p> <p>3.4. Field activities and training reports (three reports, one per year and field activity), expedition and training photos, attendance list of the young beiradeiros;</p>	<p>In previous experiences with collaborative research, we have had some problems with the use of tablets when they presented technical problems, but this led only to a delay in sending data to the servers, because the beiradeiros also make copies of their records in their notebooks as a precautionary measure.</p>
<p>Activities</p> <p>1.1 - 18 training modules for 60 students in three Extractive Reserves in three years;</p> <p>1.2 - 18 follow-up actions and evaluation of the students in their homes during these three years;</p> <p>2.1 - Six field trips with 20 days for surveying archeological, anthropological and ecological data;</p> <p>2.2 - Four workshops about research techniques on archaeology, ecology and ethnography with the young beiradeiros; 2.3 - One community assembly in each Extractive Reserve per year during the three years (nine in total), for information disclosure, monitoring, evaluation and approval of research results, and preparations for the recognition of the production system;</p> <p>2.4 - One dossier on the beiradeiro traditional agroforestry system;</p>			

2.5 - Audiovisual material about the beiradeiro traditional agroforestry system;

2.6 - Submission for the recognition as national intangible cultural heritage of the colocações, the beiradeiro traditional agroforestry system, to the IPHAN (National Institute of Historic and Artistic Heritage) and to the FAO (Food and Agriculture Organization of the United Nations) program, the Globally Important Agricultural Heritage Systems(GIAHS);

2.7 - To qualify and monetarily value the socio-environmental services provided by the colocações and propose negotiations to take this into account at meetings held to this end every May.)

3.1 - Training and field follow-up of the activities of 12 young beiradeiros in monitoring and assessment tools, in two field trips yearly;

3.2 - To monitor, evaluate and redesign actions with the 12 beiradeiro monitors upon consolidated data analysis in each semester; 3.3 -.To survey biodiversity data once per year in 40 beiradeiro tracks and 20 transects in each of the three Extractive Reserves.

Annex 3 Standard Indicators

Table 1 Project Standard Indicators

DI Indicator number	Name of indicator	Units	Disaggregation	Year Total 1	Year Total 2	Year Total 3	Total achieved	Total planned
6A	Territorial management course	M	Brazilian	34	35	35	35	30
6A	Territorial management course	F	Brazilian	17	18	28	28	30
7	Territorial management course's textbook	units	textbooks	1	3	2	6	6
11A	Articles related to Political Ecology, Conservation, Archaeology, Anthropology, Historical Ecology and Ecology.	units	publications	2	0	4	6	5
12A	Database on 3 Terra do Meio RESEX on quality of life and environment.	years	Monitoring System Database	0	1	1	2	2
14B	Seminars of the recognition of the Beiradeiro way of life.	presentations		0	0	2	2	3
20	Equipment such as tablets, drone, gps and others.	equipments		5300	0	0	5300	5300
23	Matching funds	£		26000	69341	35949	131290	94000

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)
Plurais em todas as dimensões: os sistemas agrícolas	Journal	Coletivo Folhas Compostas [ARRUDA, L., AMOEDO, D.,	Female	Brazilian	SBPC, São Paulo	http://cienciaecultura.bvs.br/scielo.php?script=sci_arttext&pid=S0009-

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)
tradicionais. <i>Ciência e Cultura</i> , 73(1), 25-35.		BENSUSAN, N; CASTRO A. M. A., DIAS, C.; DIAS, L.M.F; HORTA, A.; NASCIMENTO, A.; NERI, I.; ONO, K.; PASINATO, RESENDE, R.; POSTIGO A.;SA, D.; SILVA, L.M.] 2021				67252021000100006&Ing=en&nrm=iso
Valuing Conservation and Socio-Environmental Services on an Amazon Frontier: the Extractive Reserves of the Terra do Meio. <i>Journal of Political Ecology</i>	<i>Journal of Political Ecology</i>	REZENDE, R., SCHWARTZMAN, G.,POSTIGO, A., STRAATMANN, J.	Male	Brazilian	University of Arizona Libraries	https://journals.librarypublishing.arizona.edu/jpe/article/id/3027/
Arqueologia dos Povos da Floresta	Revista Estudos Avançados, dossiê Antropoceno	HONORATO, Vinicius e ROCHA, Bruna. 2024	Male	Brazilian	Universidade de São Paulo.	article accepted for publication; http://www.iea.usp.br/revista
Assessing the contribution of local experts in monitoring Neotropical vertebrates with camera traps, linear transects and track and sign surveys in the Amazon	Perspectives in Ecology and Conservation	Ponce-Martins, M., Lopes, C. K. M., de Carvalho-Jr, E. A. R., dos Reis Castro, F. M., de Paula, M. J., & Pezzuti, J. C. B. 2022	Female	Brazilian	Associação Brasileira de Ciência Ecológica e Conservação (Rio de Janeiro)	https://doi.org/10.1016/j.pecon.2022.08.007
Local governance, climate change, and natural resource	In: Carlos Alfredo Joly; Alice Ramos de Moraes; Érica	GUIMARÃES, Zilza T. M. ; SANTOS, Raquel R. dos ; MIRANDA,	Female	Brazilian	São Carlos-SP: RIMA Editora	https://editorarima.com.br/wp-content/uploads/2023/11/L

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)
management in the Amazon	Speglich; Gabriela Brasci Berro; Simone Aparecida Vieira. (Org.). Amazon Dialogues: Contributions to the Debate About Sustainability and Inclusion	Marcela ; BEDREGAL, Krystal ; LOPES, José C. ; OLIVEIRA, Harnani F. M. de ; ELIAS, Fernando				ocal-governance-climate-change-and-natural-resource-management-in-the-Amazon.pdf