



Darwin Initiative Main: Final Report

To be completed with reference to the “Project Reporting Information Note”:
(<https://www.darwininitiative.org.uk/resources-for-projects/information-notes-learning-notes-briefing-papers-and-reviews/>).

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	28-016
Project title	From National Contest to National Network: Friends of Felids
Country(ies)	Costa Rica
Lead Partner	University of Costa Rica (UCR)
Project partner(s)	Asociación Amigos de Felinos (AMFE), Gente y Fauna, Soul Communication, SPECIES, DINADECO
Darwin Initiative grant value	£ 244,330.00
Start/end dates of project	01/01/2022 – 31/12/2023
Project Leader name	Ronit Amit
Project website/blog/social media	Website: http://amigosdefelinos.com/ Social Media: @amigosdefelinos Instagram and Facebook
Report author(s) and date	██████████, April 2024

1 Project Summary

We aimed to promote human-wildlife coexistence with a contest that leads to a national network of model communities throughout Costa Rica. Our reach covered the entire country, located in Central America, with outputs concentrated in the northwest (Figure 1). We departed from a preexisting civil association named Amigos de Felinos (AMFE, Friends of Felids in English), founded in 2021 with members from three pilot communities in the north of Rincón de la Vieja National Park. The piloting of our researchers toward incentives for community-based wildlife management began in 2014 and now has the goal of scaling up the lessons with a contest as a strategy. The contest showed how attractive it is to “make your communities roar” with a green label scheme that links conservation efforts to actual local benefits, while urging society to recognize the role of local communities in conservation. The incentive was designed to decrease retaliatory killing of jaguars and pumas in Costa Rica, specifically in “wildlife conflict hotspot” communities, which coincidentally are impoverished and disempowered. In this report, we describe lessons from the implementation of the contest and the challenges for the winning communities, as well as for the entire association Amigos de Felinos. Communities winning the contest in 2022 and 2023 received training, funds, and equipment to join the association, where local participants form a team for wildlife surveillance with camera-trap monitoring, and another team for local entrepreneurs applying the label to products and services to promote income generation for families and, eventually, to sustain the activities of the group. We present evidence on the impact that the contest achieved on participants, specifically on improving the wildlife

governance status (with emphasis on human-felid interactions). Findings relevant for local and national decision-makers include lessons learned related to that outcome. The overall plan for the project was accomplished with technical and logistical adaptations. Methodologies and evaluations for the implementation of the incentive are still under systematisation to present the model as replicable with all its nuances. Here we present preliminary results about evidence of improved capacities at local communities, operational wildlife surveillance, and the consolidation of a network receiving benefits. Our attempt to reframe communities' relationship with wildlife, from a nuisance to a friendship, concludes with documentation of complex phenomena calling for more humane approaches to local governance: local disempowerment is deep and threatens wildlife daily. We emphasise a gradual transfer of responsibilities to community leaders, ongoing support for community empowerment, and the cultivation of sustainable partnerships to ensure long-term success and local autonomy.

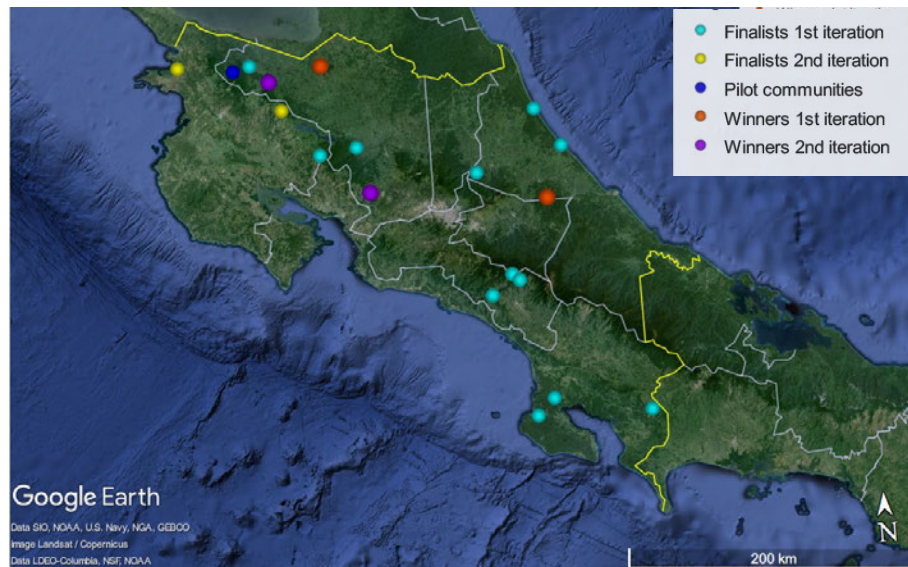


Figure 1. Location of communities participating in the Amigos de Felinos Contest during 2022 and 2023 (included are one pilot site, 12 finalists and 4 winner communities).

2 Project Partnerships

At the core of the project was the CIBET (Center for Research of Tropical Biodiversity and Ecology at the University of Costa Rica, UCR), the group Gente y Fauna, and the Amigos de Felinos Association (AMFE). Contributions for this report came from Patricia Blanco of the Office of Communications (OCI-UCR), Manuel Travisany of SOUL Communications, and Anthony Giordano of S.P.E.C.I.E.S. Volunteers assisted with data management and review. The main authors are Natalia Valverde-Zúñiga and Ronit Amit.

CIBET coordinated overall efforts, while Gente & Fauna accompanied AMFE, and the other partners served as consultants. Soul Comunicaciones led the creative process and graphic production from a publicity perspective. Teamwork posed challenges of synchronisation of production with a tight implementation schedule. However, the experience proved valuable, and quality was achieved. For the implementation of communication campaigns in 2022 and 2023, the OCI assumed a major role, leveraging its institutional capacity in public and press relations. They proactively seized opportunities for disseminating information. The hiring of Cristina de San Román as a short-term campaign manager complemented the needs for the contest, given major logistic challenges. She even assumed social network management for 2023 (in 2022, Tapir Communications managed social networks). The National Directorate for Community Development (DINADECO) played a more significant role in the first contest than in the second, enabling outreach to all community associations across the country.

Regarding sustainability, Yo Emprendedor (“Me Entrepreneur”) stepped in to provide training and tools for managing small local businesses, addressing a detected gap. They offered training at two project sites and developed specialised tools for administration. Although some commitments are pending, they assure continued relations with AMFE. Meanwhile, S.P.E.C.I.E.S. remains

committed to assisting AMFE in scaling their goods' sales, particularly in the United States. Despite challenges with corporate retail businesses initially targeted, S.P.E.C.I.E.S. secured commitments from three gift retail stores based at zoos. We want to acknowledge the key contribution of our assistants: three advanced social sciences students (Ingrid Mora, Jonnathan Vallejos, and Marco González) and one Natural Resources Management graduate student (Alejandro Rodríguez). International fellow students also assisted in various tasks. We hosted Alex Wyles from Bangor University, Irene Villegas from Spain, Melissa Pacheco from UNAM-Mexico, Camille Vincendeau from AgroParisTech of France. Volunteers from Gente & Fauna completed the team. We are also grateful to national and international experts who served as reviewers and jurors for the Contest (Annex 6).

Our collaboration with other partners was diverse: at the UCR, the Schools of Biology, Sociology, and Zootechnics; the Ministry of Environment supported sharing information, attending activities, and technicians of UACFel in the field attended cases of felid interactions. Conservations NGOs invited Gente & Fauna and AMFE to activities, such as a camera-trap photo exhibition, as well as festivals. The Universidad Latina of Costa Rica and the Universidad de Chiriquí of Panama invited us to fairs. The British Embassy graciously participated in the two awarding ceremonies of the Contest. In 2022, we had the honour of hosting Ambassador Exc. Mr. Ben Lyster Binns, and in 2023, Mr. Bryn Orton represented the UK Ambassador.

3 Project Achievements

3.1 Outputs

Output 1: Improved capacity for finalist communities to score their wildlife governance status with evidence about coexistence with wildlife, including interactions and uses, achieved through the process of the contest.

Participants initially expressed that self-assessment of wildlife management, and the related local context, was new to them and never performed with such a perspective. As exercise in awareness and retrospection, locals completed the information for the contest in 5 axes of governance relevant to the project (i.e., entrepreneurship potential, community governance, felid conservation, threats to wildlife, and good practices for coexistence). The communities we labelled as category 1 “Want to be Friends of Felids” were characterised by having no previous projects and lacked good practices to coexist with felids. These participants had more isolated local leadership, a lack of contact with the authorities, and overall uninformed participants (see Annex 7 for preliminary results). We separated these cases from the category 2 “Already Friends of Felids” participants, who were exemplary in applying good practices and had more experience with interactions with wildlife. These cases had projects in contact with organisations and authorities and had general information about coexistence.

In relation to the baseline wildlife governance status, given the diverse cases, brief case studies beyond this report will account for lessons from specific contexts. One confidential example for category 1 was in a biodiversity-rich area with interactions with felids in close proximity to human settlements. This ecotouristic community presented a contradiction when private individuals showed no interest in organising to manage wildlife as a community; they did not see value in implementing new practices, the green label or wildlife surveillance. The few local leaders who attempted to participate in the contest expressed frustration at the apathy of their neighbours. They noted that threats to wildlife were present but kept private, and ultimately, they did not continue in the contest. An example for category 2 (also confidential) involved a model community that had almost all its local governance structure figured out for marketing beautiful products to support good practices of coexistence with felids, in coordination with authorities and specialists. However, they scored lower than expected in their self-assessment as local leaders were only two busy people at the time of the application in 2022. They were reinvited in the contest for 2023, but to our surprise, their project had concluded, and participants dispersed without active leaders. We do not have updates about the continuation of that initiative.

The change in the capacity to assess wildlife governance status is evidenced in outcome indicator 0.1 (see Annex 6) and, more specifically, in the self-assessment of human-felid interactions and coexistence practices based on the guidelines and support provided. Indicator

1.1 resulted in a total of 209 interactions reported, including 111 reports of non-conflictive or positive sightings and signs of presence, 82 predation events on diverse livestock, and 16 reported deaths, including 7 jaguars, 4 pumas, 4 ocelots, and 1 oncilla. Regarding Indicator 1.2, an increase in sustainable practices could not be accounted for by the end of the project due to admittedly inaccurate estimations. The jury panel inspected the evidence to assign a score of "intensity" for the use of practices and also the "intensity" of threats to wildlife. Therefore, instead of reporting the number of practices, we present the mean values of scores for coexistence practices, which ranged from 11.0 to 27.0 points (out of 30), and scores for threats to wildlife, ranging from 4.5 to 16.0 (out of 18; see scores by community in Annex 6).

Conclusions about Output 1 reflect an improvement in the baseline status, evidenced by the combination of indicators and the preliminary analysis of our qualitative data. One relevant finding supporting this change was the local effort to compile evidence. From conversations and field inspections, we learned that our request to present details, photos, and testimonies about interactions with wildlife and the use of practices for coexistence was perceived as challenging by participants. A lesson for all was the importance of keeping logs and observing basic context, such as date, location, and the best description of facts possible. Local leaders even expressed frustration for realising that much evidence they had was lost by thinking it was not important. There was afterwards a generalised intention for keeping better records.

Output 2: Operational wildlife surveillance based on citizen science at winner communities, two in 2022 and two in 2023, become models at the national level under the network Amigos de Felinos.

As baseline, for winning communities in our category 1, people had the least experience on organised wildlife protection. However, at Las Brisas (winner 2022) that was not true as the Nairi Awari Indigenous Territory has forest rangers and their autonomous system. Sadly, they preferred not to participate in AMFE, and participants in the project had less experience; although some understood the basics of camera traps thanks to the efforts of environmental education programs by Barbilla National Park staff. In Las Armenias (winner 2023), local people commented about their perception of their natural richness and the desire for protection and sustainable use. There, attempts for protection were more related to water sources, although in the recent past there were events of jaguar killing in retaliation for predation on livestock and authorities assisted some ranchers.

Communities in category 2 had previous experiences with a certain degree of citizen science. In Caño Negro (winner 2022), locals have access to the Wildlife Refuge of that name for boat tours and then have regulations by the park rangers. Participants commented on an existing camera-trapping effort by a private photographer with an intention of transforming that into research. Furthermore, tourism guides had training on natural history and two were actually biologists. In Piedades Sur (winner 2023), this project arrived just when a previous initiative was concluding and having great advances in cooperation with UACFel-Central Conservation Area, Panthera, the UCR (Sede San Ramón), and the INDER (i.e. Institute for Development of the Agro). They had received environmental education and interventions for puma damage prevention in ranches, and were involved in camera trapping. However, some participants lacked hand-on experience and were happy to continue wildlife surveillance by themselves.

Annexes 9 and 10 evidence the operationalization of wildlife surveillance resulting in having today 4 sites (out of 5 targeted) where AMFE applies their community-based management. Intensive training was provided for 103 participants with 26% overall having grades over 8 in a scale up to 10; the percentage increased to 46% for the 54 individuals that completed the full program up to affiliation. Skills for the use of the equipment were easier to transmit compared with the scientific criteria and rigour needed for citizen science; data collection and management still require practice and improvements. From the capacity-building process leaders were identified and coordinators for monitoring teams were selected; at the end of the project, local teams assumed the tasks of developing an annual plan of operations and kept advancing on the rules for refining the model of the inter-community network.

We left 46 total camera-trap stations working (at least 10 per site), and a maximum of 11 290 night/traps were surveyed in total. Active members in this team include 27 men and 33 women,

who together invested a total of 433 h on monitoring for the project period. Media exposure to wildlife protection by communities reached thousands with the campaign of the contest (up to 126 000 people in 2022 and 12 000 people in 2023), and afterwards posts varied between 1 and 5 per community per month (Annex 14). Posts in social networks showed fieldwork and results from wildlife detections that continue in 2024 under management by local coordinators.

Surveillance in Las Brisas is led by two young female coordinators who maintain fieldwork in conjunction with park rangers and committed landowners. Most members are high school students needing to sort their calendar of assignments for fieldwork. Camera stations respect the limits of the Indigenous Territory and cover properties destined to livestock or forest protection, but that was a learning process until we had a negotiation session. The Association of the Territory was against setting our cameras inside their lands because they have commitments with other projects and found their privacy could be affected (they expressed that our project had no direct benefits to them because they already protect wildlife). The local team slowly advanced in technological skills for data collection and management. Results show wildlife is present but impacted by prevalent domestic animals; poaching has been detected and the team is adjusting for actions, both to control and also in prevention of conflict.

In Las Armenias, monitoring explorations ignited opposition from neighbours that considered jaguar protection was negative due to unattended predation events in the past. A meeting was held to clarify intentions and for authorities to register and proceed with the attention to ranches claiming support. Still, many neighbours prohibited entering their lands to the local team, who respects each property (all participants sign informed consent forms for having cameras). Coordinators are busy people but are managing fieldwork calendars their best; all the team got motivated because the first jaguar appeared fast and in an unexpected ranch. Some cameras are pending installation to complete the spatial arrangement. The registry of interactions needs to get more regular with surveillance rounds and inquiries to participants.

In Caño Negro, after training participants showed a high level of involvement, with most cameras already set, then we perceived some dissatisfaction, not with the training, but with particular characteristics of the scheme. Representatives expressed misunderstandings about the identity of AMFE conflicting with the identity of the local group, and there was concern regarding requirements of scientific standards. Representatives (who indicated decisions were consensual, although we could not verify that) withdrew affiliations. While reviewing their claim to the price items, they met with AMFE, and the directive board decided Caño Negro was not a good addition for them. We proceeded with the disqualification due to not compliance with affiliation (based on legal advice; official communications available upon request).

At Piedades Sur, participants easily absorbed ideas and skills about citizen science, but also questioned criteria and asked for trials of the spatial arrangement of the phototrapping for later adapting to what locals consider best. With fewer cameras to install, researchers suggested a different controversial array due to the multiple-use landscape, resulting in an almost transverse line as a hypothetical route for pumas. Preliminary data is positive, which furthers the happy impatience of the team to acquire more cameras. The two young coordinators of the team are professionals, great at managing data, and they comment on the careful leadership style they want to maintain for quality controls and credibility on their intentions.

At pilot communities in Rincón de la Vieja, wildlife surveillance was overall productive but had ups and downs along the project period, as they were left with less external supervision than the new sites, being the most advanced in the practice (they received [training from 2019 to date](#)). The role of the local young female coordinator was crucial as she showed outstanding leadership skills and was also part of the training for the new communities. For this project, the hiring of the coordinator lasted 10 months, instead of 20 intended, but was hindered by administrative problems, i.e. a delay on agreements and formal requirements, and a major mistake by the association with extra social charges reducing the months for the contract. Even so, the team maintained phototrapping activities (not much surveillance per se). At the end of 2023, with a new partner, the team is making changes; we are unsure about the priorities set by this new project, expecting community participation and standards of transparency to be maintained.

In conclusion, Output 2 was achieved with much effort invested, and provided lots of contextual lessons (see section 7). Important is to notice this was an inductive process and consolidation of the model will be gradual and dependent on local leadership more than on external collaborations. The role of the directive board is crucial in this stage of integration of the multiple communities, new members need to reinforce their ownership of the group identity.

Output 3: Consolidated network of communities that receive benefits as entrepreneurs that coexist with jaguars and pumas, with winners of this contest added to the pilot three existing at the beginning of 2021.

As a starting point following its establishment, AMFE was gradually taking on the responsibility of fulfilling the various objectives and activities outlined in its formal statutes, with the main focus being wildlife surveillance and commercialization of local products and services. However, the directive board faced social limitations, resulting in slow progress with administrative tasks, communications, and overall planning. Through this project, the support provided by Gente y Fauna, and later by the UCR, attempted to enhance the administrative structure and the cohesion among members of the directive board. During the contest, the pilot communities in Rincón de la Vieja were actively engaged, receiving real-time guidance, and encouragement for proactive participation. Additionally, financial assistance was provided for hiring local coordinators, procuring equipment, and supporting entrepreneurs.

The journey towards the consolidation of financial benefits had its highs and lows; as a gradual process, it reached significant milestones while also revealing gaps. AMFE has seen growth in membership, with 17 affiliations from Las Brisas, 18 from Las Armenias, and 23 from Piedades Sur, with more in the process of joining. Additionally, local leaders have been incorporated as coordinators of the Entrepreneurship Teams at each site. Although baseline data was unavailable, participants reported earnings of more than four times their investment in their production (with a rate of income to investment of 4.93 for Rincón de la Vieja and 4.34 for Las Brisas; it is still too early to estimate for Piedades Sur and Las Armenias). Locals managed to invest time to advance in production; at Rincón de la Vieja, 7 out of 11 months saw participation over 20 h/month for a minimum of 12 participants, and at Las Brisas, 5 out of 5 months saw a minimum of 6 participants investing over 20 h/month.

Similar to monitoring, an entrepreneurship coordinator was hired in Rincón de la Vieja for 10 months by the Association under the supervision of the directive board, but the hiring could not be extended due to administrative mistakes. The coordinator selected was a woman with some entrepreneurial and technological skills. However, there was miscommunication between her and the board, as well as with the entrepreneurs in the team. Although she helped with training for the new communities, she was not very proactive in the sessions. We intervened with planning, reporting, and provided advice on communications; however, many excuses regarding others not responding to her leadership, and the board not assisting her, continued. Tasks were left incomplete, but terminating the contract early was an option that the board avoided for personal reasons. As a consequence in the pilot site, the team's motivation and production decreased, opportunities for sales were missed, reports were incomplete, and the agreements with the 9 local services under the label were not monitored regarding commitments for mutual support. After the appointment ended, from April 2023 to the end of the project, two locals attempted to voluntarily coordinate entrepreneurs but also lacked proactivity. Entrepreneurship at Rincón de la Vieja was reduced to further training by Yo Emprendedor, but there was no productivity. Sustainability there was at risk at the end of the project, not due to lack of opportunities, but due to lack of local leadership (see Section 9).

The entrepreneurship component of the scheme was much better received and maintained at Las Brisas, where the culture and context already promoted families to generate income by producing goods with limited resources. During the training, participants incorporated felid inspiration with ease, although teaching and learning was challenging for all. We invested more time there to adapt contents and methodologies, and so did Yo Emprendedor, to ensure that these members absorbed the most information and acquired practical tools (Annex 10 and 15). Despite facing many socio-economic challenges, locals committed to learning and producing, were careful investing the prize funds from the contest, affiliated one [service](#), and sold products independently. Two coordinators were elected, one an older woman outside the community and

one indigenous young woman in the town centre; together, they managed communications that required in-person approaches (remote communications remained as barriers there). Reporting took some time to be under local control, and in the first months of 2024, activities are ongoing. The team is soon meeting to plan next steps, but need logistical help from collaborators.

To include the experience in Caño Negro in this narrative, entrepreneurs involved for a short period were mostly touristic guides, small businesses and transporters, with few entrepreneurs on other products. The guides were influential toward their interests, which affected how they perceived that the cameras could be part of tours, how to fund monitoring activities, and were not prioritising small producers. When their relationship with the project finished, we were unsure if all potential members were included in decisions. Piedades Sur and Las Armenias began reporting in December 2023, and their local coordinators are slowly guiding participants on the next steps for entrepreneurs and on data collection for 2024. They still ask for accompaniment to concrete the application of the label and access to the tools provided by Yo Emprendedor, as well as the opportunities led by S.P.E.C.I.E.S. In [Piedades Sur](#) and [Las Armenias](#), 4 and 5 services affiliated, respectively, to support the group and attract visitors.

For marketing purposes, the concept *#roaringcommunities* was maintained because it showed high effectiveness and adaptability. Communities embraced the concept as an entrepreneurial and empowering expression. This inspired the imagery for the website, the product catalogue, and the printed labels (Annex 13). The campaign of the contest attracted opportunities with new alliances, and other collaborations opened organically due to the attractiveness of the Association. We identified 17 local opportunities for collaboration, 15 national, and 3 regional; totaling 26 opportunities and invitations between October 2022 and February 2024. Income was generated opportunistically, instead of incrementally as expected. This component was our weakest in terms of implementation timeline and in the conclusion of the project (Annex 11). As demand for the products did not increase significantly, a boost in production did not occur. Locals had reduced sales capacity on their own, and the directive board took no action on these matters. The slow commercialization by allies led to impatience and demotivation among many members. To address these gaps, the consultancy by Yo Emprendedor strengthened the capacities of entrepreneurs at Rincón de la Vieja and Las Brisas. They also made progress in preparing for national commercialization with guidelines for negotiation (Annex 15).

For international commercialization, AMFE's artisanal brand aligns well with S.P.E.C.I.E.S.'s larger concept of predator-friendly goods for Western markets, especially targeting younger audiences in the US zoo community, where it plans to market its products in the coming year (Annex 16). Despite challenges with corporate partnerships, they found success with smaller retailers, positioning Amigos de Felinos for wider market penetration. As such, they have not technically been able to test the sale of products as they had originally hoped. This was largely due to the learning curve in pioneering this concept, which after extensive interaction and dialogue with prospective retailers, took more time to develop than they originally anticipated. While AMFE products are not yet available in the US, progress has been made, with dozens of retailers aware and three already committed to selling the products. Discussions with a major zoo retailer indicate further expansion potential (saying AMFE represented "just what they were looking for"), with ongoing efforts to explore partnership opportunities.

The balance for Output 3 turns somewhat pessimistic regarding how strong local management became by the end of the project and soon after. As the new sites increased in motivation and activities, we expected AMFE's directive board to become stronger in their leadership. On the contrary, in the gradual process of assuming more responsibilities, the directives neglected participatory decision-making and accountability, while relying too much on Gente y Fauna and the UCR. After two years in power, the first directive summoned the General Assembly in July 2023, and most members were reelected despite some efforts to promote other leaderships. Only a few members of the new communities were eligible due to a slow affiliation process, so the board remained solely at Rincón de la Vieja. Regarding the overall progress of the Association, only one official report from the board was submitted to UCR in July 2023, and a final report was received only unofficially (available upon request).

Limited capacity and diverse social obstacles served as valid excuses in several instances, leading Gente y Fauna to maintain accompaniment. However, commitments made by members of the board were rarely fulfilled on time or in full. Administrative tasks posed a significant challenge for the Association's leaders, as they took an extremely long time to process official requirements, such as financial records, legal registrations, and contractual obligations. Opportunities were missed simply due to failure to respond to communications; one such instance was a proposal by S.P.E.C.I.E.S. to purchase products for a trial export. Accountability to members was limited or absent, including the official response to requests for affiliation from all communities. As the reporting deadline for our project approached in early 2024, we grew concerned and attempted to help. To our surprise, we discovered irregularities with the remaining funds of this project, which were mixed up with funds from other projects. In our effort to rectify any misuse, the directives refused to provide further information. We informed the person responsible for internal prosecution, who decided against calling for an Assembly.

Consolidation of the network is facing an uncomfortable environment. Gente y Fauna disagreed with the lack of transparency towards the members and decided to share all reports with participants, suggesting a deeper analysis of the facts and a revision of the leadership by the Assembly of members. To date, members are considering which processes to follow, with the majority waiting for others to take the lead. The directives, advised by the new partner Costa Rica Wildlife Foundation, requested that Gente y Fauna withdraw from activities, which prompted many members to informally call for the General Assembly to meet (formalisation of the request is pending). We continue to document the situation for our overall performance analysis of the Amigos de Felinos scheme, pending the triangulation of all information.

Conclusions for Output 3 reflect the challenges of structuring an organisational model for the inter-community group. The initiative is still young and needs time to mature in order to fully comply with its statutes. Unfortunately, leadership and real-participation issues are common, and members must find what works best for them. On the negative side, pilot communities are lagging behind the new ones in motivation and entrepreneurship, and the scaling of sales has not yet gained traction. On the positive side, the AMFE has grown, with the site facing the most social disadvantages (Las Brisas) showing the most effort in entrepreneurship. The two newest sites are eager to learn more. While retail partners show promise, external facilitation is still necessary. Closer attention must be paid to reinforcing ethical principles and values by local leaders to restore trust and credibility in the group, as well as ensuring public accountability.

Output 4: Monitoring and Evaluation: Evidence supports the thesis that the eco-label reached the desired communities, and generated sustainable benefits that resulted in community-based wildlife management, with the contest as a marketing tool for scalability.

Having a separate output for M&E helped to sustain the logic of implementation for the project, but makes reporting somewhat redundant. Therefore, we refer to other sections and Annex 2. Furthermore, the output is stated as a thesis making it dependent on a comprehensive analysis beyond this report. Overall, the Contest was a valuable strategy for scalability; first, to showcase nationally and internationally a scheme of community-wildlife management (adding value to the green-label); second, to involve citizens in an assessment of local wildlife governance; third to set the foundations of the national network under the Association; and, fourth, the process allowed feedback and documentation (reported as preliminary analysis here).

Scores of wildlife governance were created with 5 axes of (1) local entrepreneurship potential, (2) community governance potential, (3) ecological value for felid conservation, (4) intensity of threats to wildlife, and (5) intensity of good practices for coexistence. The rubric was designed to target communities where the governance would be impacted for the better. As an indicator of proper targeting, the inspection of score positions shows a top of 87.1 and a bottom of 43.1 in the rubric of 100 points for local wildlife governance (Annex 6). Case studies after this report would better assist in interpreting the scores. Of course, our scoring had specific characteristics in what it measured, and its reliability, with the jury panel as a control of bias.

Preliminary statistical analysis shows no change in benefit perception in either community (see Annex 8, and Section 3.2). The results might have been affected by several factors, like the short

time between measurements in winning communities and how the survey was done. Also, there could have been biases in who was surveyed, like differences in education level and environmental values. At pilot communities (with more time between measures) wildlife acceptability did increase, and previous measures (2018-2021) had shown increased perception of benefits (unpublished). Still, we prefer not to express conclusions about this indicator for this report until later in-deep analysis and modelling.

For this report, the indicator for wildlife presence and relative abundance was not possible to analyse due to the volume of data (>380Gb). We completed 18 months of data collection at Rincón de la Vieja, 9 months at Las Brisas (with 3 months of baseline), and 3 months baseline at both Las Armerías and Piedras Sur (Annex 9). However, data processing is slow and status varies at each site. Preliminarily, at least 31 species of medium and large mammals and birds have been detected by the local monitoring teams, including felid species (Annex 9).

During the contest we identified pro-coexistence behaviours and threats from the application form and rapid field inspections, but we failed to quantify them, and asked the juries for a score in the rubric instead of absolute values. Therefore, the ratio of wildlife pro-coexistence behaviour to threats to wildlife (expecting the more good practices, the least threats) could not be estimated. The measure was feasible, and each time we reviewed the logframe we were optimistic about finding the data from what we already had. Looking back, to work properly, indicator 4.4 needed data collection from participant observation in the field, accounting for variations and impact (and observability). Human-wildlife interactions were tracked as communities began the monitoring, then some information on threats is on record. If good practices were facilitated by the project or allies, those were recorded as well (Annex 9). However, that information is not enough for a monthly radio estimation.

3.2 Outcome

Outcome: Participation in a national contest motivates local development associations to assess and improve their initial wildlife governance status, particularly human-felid interactions in most vulnerable areas (buffer zones and biological corridors).

We documented the complexity in motivations and emotions of community groups beyond local development associations to improve their relationship with wildlife (Annex 7). The outcome included a successful communication strategy for the contest to reach both local and national audiences. Additionally, an informative participatory process was conducted to assess local wildlife governance, with mixed results regarding directly impacting the acceptability of felids by participants when implementing our scheme of incentives in an intensive modality. We consider the outcome achieved, except for having one less site than expected. Nevertheless, lessons were valuable regarding the adequacy of the design of our scheme. We will offer case studies and criticism of our approach in deeper publications. Surely, this outcome requires consolidation, meaning long-term commitments from communities and their collaborators.

The *#roaringcommunities* campaign achieved its objectives by promoting national participation and the value of wildlife through consistent messaging, associating the roar with entrepreneurial expression, and fostering trust and motivation (Annex 14). Flexibility addressed issues during the first contest, reinforcing the campaign's educational nature in presenting its targets. Active participation was evident in events, social media, and community forums. The contest cycle was successfully completed twice, underscoring the campaign's effectiveness. Direct feedback, including reactions, photographs, and records, showed the communities' ownership, expressed through gestures such as roaring and raising claws, as well as banners, etc. (Annex 13 and 18). In the final phase, focused on product exposure and ongoing storytelling about these communities' commitment to felid protection, the concept was maintained through displays, labels, stamps, a catalogue, and a website, aiming to highlight the added value of each felid-friendly product beyond the project's duration.

Indicator 0.1: Improvements in initial wildlife governance status were documented (Annex 6). The mean score was 64.9 ± 13.2 of a maximum of 100 points. We observed 8 out of 13 participants changed their total score during the contest, 7 increasing (53.8%) and 1 decreasing (statistical tests were inadequate, therefore, we defined as differences the change of at least 10 points in

the total score). For example, Las Brisas increased their score by more than 20 points in a context of a few leaders, not actually endogenous to the site, but caring much about not letting the opportunity go elsewhere. There, the complex social relationships are changing to allow innovations that care about inclusion, however difficult it is in practice (Annex 7).

Indicator 0.2: People from 69 locations all around the country contacted our call-centre for the Contest. The participatory process highlighted to all stakeholders, especially decision-makers and the locals themselves, the potential of local communities as managers of their surrounding wildlife, along with their expectations and limitations (Annex 7). Qualitative records included: 59 phone calls, 191 voice messages, approximately 58 text chats, and 15 fieldwork reports for 2022; 24 phone calls, around 30 voice messages, 18 text chats, and 20 fieldwork reports for 2023. The number and distribution of participants in the contest surprised the entire country, revealing significant data for policy discussions that justify jaguars as a national focal species and the incorporation of communities as stakeholders. Preliminary emerging themes are labelled: “traditional wildlife governance”, “promise of benefits from wildlife”, and “felids’ impact on people-people relations”. The nuances in definitions and contexts about these themes, and others yet to emerge, provide new perspectives for national policy and local decision-making. Real participation was challenging, and we documented the efforts and frustrations of local leaders to approach neighbours and allies and open dialogues to exchange information and call to action. Inspecting the human-wildlife relationship in each participant community through the eyes of locals, guided by our researchers, should prompt all stakeholders to reflect on whether local wildlife governance is a desirable path for development and conservation.

Indicator 0.3: A preliminary test of differences between measurements of the Wildlife Acceptance Capacity model before and after the project at pilot communities showed an increase in acceptability of jaguars and pumas ($p < 0.00$), and an increase in social trust ($p < 0.00$, $n = 156$; Annex 8). No other difference was detected as significant for the sample at winning communities. However, our analysis still needs to refine the content and discriminant validity of the measurements, and include previous samples from the pilot communities to inspect the relevance of the Wildlife Acceptance Capacity model. Acceptability refers to the willingness of people to accept wildlife or policies. We will process our data in full to test if our intervention with the scheme of incentives (not so much the contest) influenced emotions, perceptions and attitudes. Here we remain conservative for interpretation of results.

3.3 Monitoring of assumptions

The main project assumptions were monitored mostly by recording observations from our team to perform adaptations when necessary. The evidence to support this section comes from transcripts of call-centre records and fieldwork reports, still undergoing qualitative coding analysis (see Annex 7). Overall, our assumptions proved correct, indicating our team's understanding of the issues and the complexities of the context. As we implemented the project, we added new assumptions to the logical framework as needed.

Concerning the outcome, particularly the contest's effectiveness in expanding the green label scheme for local products tied to wildlife conservation, we needed to find a balance between the benefits offered and the commitments required from participants. In response, we modified messaging and field inspections. As we had limited control over the initial empowerment at communities, we tailored our communication campaign to focus on motivation and offer accessible support. Despite local leaders expressing interest in development opportunities, it appears that the general population in many towns is not actively seeking such opportunities. Assumptions about collection of socio-psychological data (WAC model) involved sampling challenges, such as access to a sampling frame, accepting that the sample was biased in the online mode of application, and the limited period between pre- and post-test. We added an assumption that forced a bigger effort than previously planned to increase response rates.

For Output 1, our data collection forms were rigorously validated through cognitive tests and expert reviews. In the second year, we improved weaker areas. Objective evidence for wildlife interactions was scarce, so we added flexibility in registering circumstantial evidence. Participants were encouraged to assess wildlife governance validity, revealing generally low local

capacity except for a few exemplary cases. For Output 2, Ministry of Environment support continued, and private landowners facilitated wildlife monitoring access. In-person activities proceeded without health protocols, except for the initial awarding ceremony. To address digital communication limitations, we employed alternative methods. Remote and culturally diverse locations required field assistance from collaborators and local leaders.

For Output 3, we still hold the assumption that local leadership will undertake wildlife management under the scheme; this complex discussion on governance is elaborated elsewhere in the report. Revenue generation for conservation and development relied on local initiative and external partnerships, which we addressed with Yo Emprendedor consultancy due to timeline constraints. Despite challenges, advances were significant, detailed in Annexes 15 and 16. Regarding maintenance of the support by DINADECO that was not as relevant as initially considered as we were open to any type of organised group, not only formal development associations that required that institution. More importantly, we assumed that the association Amigos de Felinos would maintain activity and facilitate the affiliation of members in new communities to form the network. The processing of affiliation proved burdensome for the board of directors, even with the support of our partner Gente y Fauna, who verified each application before submission.

For Output 4, we assumed a coverage of large audiences at the national and regional levels, and that holds true (see Annex 14). The assumption of non-interference to allow democratic participation and autonomy of academic and community initiatives to disseminate results generally holds true. However, we discuss anti-democratic processes limiting community-based initiatives. Finally, we assumed that the standards of scientific quality are maintained or increased for interdisciplinary studies. This holds true, but it is challenging due to the limitation of our human resources. We are still searching for support on this for the accumulated data that still needs processing for dissemination of results to different audiences.

About the pathway of change that we proposed, we need to inspect the data in depth to systematise evidence and generate new research questions based on the experience. We assumed our contest served as motivation to become part of a network, which would increase wildlife acceptability, improve local governance, and hence coexistence. That holds true, participatory methods had the expected response for capacity-building and motivation, such as promoting pride, cooperation, inclusion, fun, and responsibility. The devolution of rights and responsibilities of wildlife management to locals still faces resistance from stakeholders. Also, we found some rejection by participants of the commitments requested expressing a desire for paternalistic, unconditional benefits. Similarly, there is always a risk that the incentive could become “distorted” by its benefits being interpreted solely as financial, instead of social welfare.

3.4 Impact: achievement of positive impact on biodiversity and poverty reduction

Impact: Communities vulnerable to wildlife conflict receive benefits from surveillance of jaguar and puma interactions by competing for assistance in the affiliation into a national network of Friends of Felids marketing wildlife friendly production.

The project aimed to strengthen the link between biodiversity conservation and integrative welfare. As mentioned in the original proposal, a main flaw in conservation initiatives is the lack of more concrete benefits, and the Amigos de Felinos scheme provides a structure for these benefits. Contribution to wildlife is evidenced by local surveillance efforts, although the actual impact on species and population dynamics requires inspection of the data from ongoing citizen science efforts. The contribution toward poverty alleviation is discussed in Section 4.2. One major social benefit of this project is the public exposure to the role of communities beyond theory: all local communities frequently make decisions regarding their wildlife. It should now be clearer that locals have power over the destiny of wild species. This level of politics/governance needs to be better accounted for in conservation projects and policy, although the role of organised local communities is still generally viewed with scepticism.

Strengthening local leadership, resources, and support for participatory governance structures requires further investment, but much progress has been made, and policies favour this path.

From our experience, social disempowerment must be declared the main enemy of community-based conservation, specifically the disempowerment systematically promoted against democratic processes, which removes local voices from decision-making. Vulnerability to conflict, both human-wildlife and human-human, was evidenced by the cases of the communities participating in the project. Conservation projects need reframing to promote social change and foster coexistence behaviours with explicit multi-stakeholder processes. The sector should provide accompaniment until local autonomy is gradually achieved. Authorities and even funding sources should rethink which projects are supported to ensure needed collaborations and shared principles towards correct for local disempowerment.

Our higher-level impact takes the form of a replicable model of participatory local governance accompanied by multiple stakeholders. The Costa Rican democratic context allowed this model to emerge, while exporting it in the region would present its own challenges. The Amigos de Felinos Contest promoted the desirability of being part of an inter-community network, signalling a shift in social norms, cultural identity, and social trust. The value of the conservation and development link is represented by the label Amigos de Felinos; however, the intercommunity network is still young, and there are many risks regarding the main values of cost-sharing, social justice, and transparency. Our team is aware of the overwhelming complexity that this initiative represents and the impatience regarding when benefits will become more concrete.

The alternative income-generating activities aimed at alleviating the burden associated with conflicts with wildlife are still met with reluctance to commit to addressing these conflicts. We also encountered claims for fair treatment when, in policy, wildlife rights are perceived as prioritised over those of citizens. Although our project was too specific in its methods and measurements, these deeper concerns provoke discussion on how a local wildlife governance score could serve as an indicator to monitor the conflict-coexistence gradient. As a final thought, envisioning community organisations tracking wildlife interactions and transmitting the data to the authorities seems like a path to open dialogue and action for social and environmental change over time.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)

The Costa Rican National Biodiversity Strategy is under review for 2024 by the Ministry of Environment and the United Nations Development Programme. Our contribution relates to [Goal 57.B. "Increase on the percentage of production under sustainable production practices"](#). About invitations for committees, Gente y Fauna was in the past part of the National Commission for Wildlife (CONAVIS), in which Dr. Ronit has also represented the National Council of Universities (CONARE). More recently, Gente y Fauna was invited as a potential representative of NGOs in the Council of Scientific Authorities for CITES (CRACCITES). Currently we do not participate in those commissions. We have maintained contact with the Ministry of Environment and the National Commission for Biodiversity Management (CONAGEBIO), as focal points for the CBD, the Nagoya Protocol and CITES. Ronit is also a member of the IUCN SSC Human-Wildlife Conflict and Coexistence Specialist Group and is in contact with the regional office for UICN-ORMACC.

Reports of our project will be available for key national authorities and the regional conservation sector. Our findings are valuable for planning jaguar and biodiversity management. Jaguars are a key focus on the regional political agenda, with initiatives like Jaguar 2030 aiming to maintain corridors, minimise human-felid conflicts, combat corruption and illegal wildlife trade, and address climate change in tropical forests. We emphasise the importance of considering local governance complexities to avoid inefficiencies and delays in addressing human-wildlife interactions. Authorities, NGOs and donors must rethink their role to demand collaboration and transparency to overcome issues hindering the impact of conservation efforts, including uncoordinated and duplicated actions.

This project focused on local governance, encouraging communities to assess their relationship with wildlife and raising awareness of wildlife interactions nationally through public engagement.

For implementing the Amigos de Felinos incentive scheme, we provided training and tools to improve local governance structures, showcased field actions through media to inspire others and garner support from partners, and initiated wildlife monitoring in new community-managed areas. In this manner, our project addressed Aichi Targets to “mainstream biodiversity” as a source of development that promotes responsible practices in agricultural development, and enhances capacity-building in a participatory decision-making framework. These actions aligned directly with the National Biodiversity Strategy and Policy, complying with the Organic Law of the Environment No. 7554, and the Wildlife Conservation Law No. 7317.

We aimed to protect, restore, and sustainably use land ecosystems to prevent illegal jaguar hunting for wildlife markets, a priority identified by CITES. We documented threats and suggested actions in communities participating in Amigos de Felinos. Organised monitoring teams, supported by authorities, should address neighbours involved in wildlife killing and trafficking. Our project actions aligned with CBD principles and contributed to several UN Sustainable Development Goals, particularly Goal #15, "Life on Land". This goal guided us to redefine biodiversity conservation as a responsibility and right of local communities.

Relevant to the efforts to model our scheme of incentives for the scientific community and the global market, other UNSDG to which we contributed were Goal #1 “No Poverty”, Goal #3 “Good Health & Well-Being”, Goal #5 “Gender Equality”, Goal #8 “Decent Work & Economic Growth”, Goal #11 “Sustainable Cities & Communities”, and Goal #12 “Responsible Consumption & Production”. The model is replicable and adaptable, however complex and full of commitments. We have received inquiries about replication from Argentina and Panama. Such argumentation receives attention from commercial allies in the USA, like Project Survival Cat Heaven, Amazing Animals, Inc., and Tigers for Tomorrow (see Annex 16).

Our efforts aimed at key sites previously excluded (“wildlife conflict hotspots”) in accordance with the fair and equitable distribution of benefits called for by the Nagoya Protocol. The design of activities, not solely based on finances, but in combination with pride, union and fun, is key for long term sustainability linked to integral welfare. Thereby, the project facilitated improved livelihoods with the opportunity for a tangible solution for the protection of biodiversity, and we expect the path towards sustainability will mobilise financial resources. Benefit-sharing is one of the axes of the initiative that still needs consolidation to combat threats to biodiversity, by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

4.2 Project support to poverty reduction

Our indicators and products offer evidence on poverty in felid-coexisting communities in the contest (Annex 6, 7, 10, 11, and 15). Official poverty statistics were unavailable at suitable scales for the sites. Our methodology worked better for diagnosis and to deepen the understanding of project developers on the role of poverty for conservation initiatives. However, measures to reflect impact or change were limited, in some cases because no comparison of pre- and post-project were possible, other cases showed that our measures were difficult to collect. Issues primarily emerged in quantifying local effort, participant capacities, public and decision-maker awareness of local needs, and participant productivity (inventories, costs/sales, investment, local labour). To supplement these measures, we gathered qualitative descriptions of the socio-economic context to score contest participants during field inspections. The tools we developed allow better registries with forms and databases more user friendly and assigned to responsible leaders (currently beginning their use).

Before mentioning our contributions, baseline situations we found in the majority of communities involved in the contest presented socio-economic disadvantages, as we expected based on previous studies that had shown a correlation of areas that had concentrated cases of human-jaguar conflict ([Amit and Corella-Esquivel 2016](#)). In previous experiences at the pilot communities when surveying households we found old people in abandonment, families with disabled young unable to access and assistance, migrants living in fear, illiterate people and so on. In the current project, because our interaction with local people deepened (at winning communities and also at pilot communities), our team got involved in harsh social situations as witnesses of poverty extremes.

At Rincón de la Vieja, locals perceive that economic recovery from the pandemic has not yet reached a positive level for families and businesses dependent on tourism. Additionally, the National Emergencies Commission declared the area vulnerable to volcanic dangers, leading many tourist agencies to avoid visiting. Our team identified around 5 families facing critical social conditions due to illness and homelessness. We were fortunate that one case inspired a massive movement to build a house and assist a highly vulnerable family; for other cases, we received some support, but it was never sufficient.

In Las Brisas, poverty cases are also culturally linked to the relationship between peasant and indigenous inhabitants. This remote area requires locals to walk for hours to access basic services. Institutional support must consider which population to prioritise to manage local conflicts with equity. While there were many cases of families in need, most were self-sufficient in basic aspects of daily life. The social assistance we could provide (although limited) was welcomed with gratitude. We documented some critical cases related to access to water and instances of health problems that required the national health services available in the city. Our time working with Las Armas and Piedades Sur is still short for developing a more intimate relationship between our team and local families to learn more about their social struggles. However, we are aware of cases of limited access to services and specific needs.

Our evidence of progress in poverty alleviation stems from improved self-assessment of local wildlife governance, policy insights, capacity building results, and network development (Section 3). Our project built local capacities and provided tools transferable to similar projects. Training in citizen science and entrepreneurship expanded livelihood options. We provided certifications and even had a few cases of local people requesting recommendation letters and contacts for employment, grants, and education (6 local cases, and 6 for project volunteers).

Contributions to development were tangible through wildlife monitoring and entrepreneurship training. Participants found monitoring enjoyable, fostering a connection with nature and social bonds. The experience instilled a sense of responsibility for nature, and it predominated when financial benefits were not yet guaranteed. Entrepreneurship training brought personal fulfilment and pride in creativity. Despite challenges, even the poorest participants showed dedication, travelling long distances to participate, yet feeling satisfied afterward.

Other concrete benefits of good practices included collaborations with partners for specific cases of felid damage prevention. Negative interactions involving livestock and poultry predation were reported to the authorities UACFE-SINAC and Panthera (assisting more than 5 producers). We also supported AMFE in winning their first direct grant for the construction of Amigos de Felinos' chicken coops, funded by the Mohamed bin Zayed Conservation Fund. However, income generation occurred opportunistically rather than incrementally as expected, making this component the weakest aspect of our project. We found a problem because our measures relied on participants reporting, but locals were still learning how to track data effectively. As a result, our measures were not reliable enough to show poverty reduction in this area. The project facilitated access to resources, market opportunities and collaborations for technical advice and training (Annex 11). Amigos de Felinos, as a civil association, has open doors at institutions, and is attractive for external donors. The University of Costa Rica will be available to provide infrastructure or resources to support AMFE's mission when needed.

4.3 Gender equality and social inclusion

Our project proactively sought to identify excluded groups within all participating communities in the contest, with inclusion criteria being integral to our guidelines and communication efforts (as recorded by the call-centre, Annex 7). Observing potential threats to inclusion, we suggested increased efforts from local leaders and collaborators. During activities with pilot and winning communities, we also aimed for inclusive participation, seeking ways to support participants facing disadvantages, usually related to health or household and productive responsibilities.

Activities tended to favour women, which had both advantages and disadvantages for achieving equity in our desired impact. Part of our impact has been inspiring many women to take on roles traditionally associated with men, such as inspecting ranches and making recommendations to

protect both livestock and wildlife. We have anecdotes of our impact on gender, including young girls asking us what they should study as they grow up. In many local contexts, entrepreneurship is viewed as a female activity to complement male income. In past projects, we encountered cases of men refusing to participate because the research team of Gente y Fauna was led by women and there were more women than men in certain activities. During this project, on one occasion, a member complained of being excluded because the directive board of the Amigos de Felinos association was composed of women who he believed only wanted to benefit other women. Our team was proactive in including men when we perceived misunderstandings or discomfort, ensuring their participation was equally valued.

Please quantify the proportion of women on the Project Board ¹ .	100% of project staff, 28% of CIBET scientific committee
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 ² .	70% of Gente y Fauna, 40% SPECIES, 60% AMFE, 66% SOUL

In terms of social inclusion, we encountered a significant challenge in the new context of an indigenous population in Las Brisas de Siquirres. There, the Indigenous Territory Nairi Awari, inhabited by the Cabecar ethnic group, operates autonomously and is somewhat isolated from the local peasant population. We discuss how we navigated these circumstances in Section 7. In essence, after numerous attempts at collaboration, the Indigenous leaders determined that the design of our project was tailored for "whites", and they chose not to participate, provided we refrained from involving their territory in our activities. However, they prohibited their members from affiliating with AMFE. This imposition was disheartening for some potential participants, while others who had previously clashed with the community opted to continue. We respected the autonomy of each individual to make their own decision.

4.4 Transfer of knowledge

During the project's lifespan, knowledge transfer primarily targeted local communities due to our staff's workload. Practitioners and policymakers were involved mainly as observers of operations and were the focus of the communication campaign, highlighting the role of communities in wildlife management (refer to Annexes 13 and 14). Exceptions included colleagues in the conservation sector and Ministry of Environment authorities involved in fieldwork activities, like park rangers and researchers. Occasional talks were also held for these audiences to facilitate information exchange. Dissemination of results was planned post-project, fulfilling our responsibility to share lessons learned for conservation practices emphasising local governance and inclusion. Platforms for knowledge transfer will include scientific papers, presentations, infographics, and social networks. The public release of this report will mark the initial step, pending authorization.

4.5 Capacity building

Our research team (led by two women) is nationally recognized in the conservation sector for their innovations and hands-on experience, as well as their impact on policy-making. Dr. Ronit currently holds a tenured adjunct professor position, albeit on a half-time basis. She now has the right to request full-time employment and requires only a few publication points to qualify for promotion to assistant professor. MSc. Natalia will be prioritising family commitments within the next months (maternity leave) but remains open to project opportunities and private consultancies; she will also benefit from the publication of our findings. Other staff members on the project have enhanced their CVs through their experiences, particularly the student

¹ 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.

² 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.

assistants, international fellows, and volunteers. Internationally, Ronit and Natalia's profiles are well-regarded due to their previous publications and networking efforts. We have received invitations from organisations, and whenever possible, we accept them. Also, we perceive an increase in inquiries from prospective students. We are currently looking for grants to support writing, and fellowships for networking.

In relation to the participation of the University of Costa Rica in the project, it is necessary to highlight its leadership in the coordination, planning, and decision-making for the project's development through the CIBET, as well as other university units, such as the Foundation and the Office of Institutional Communications (OCI, previously ODI). This institution demonstrated its capacity to manage a project that required engagement with diverse actors and external collaborators, including governmental and civil society entities, as well as communities. This aspect is fundamental, as the University has among its purposes "to contribute to the transformations that society needs to achieve the common good, through a policy aimed at achieving social justice, equity, comprehensive development, full freedom, and the total independence of our people" (Organic Statute). This is relevant as politicians endanger public funding and the trust in scientific and social institutionality.

5 Monitoring and evaluation

We made small changes to the plan, considering factors like scope, constraints, science, and practice. Most changes were expected to adjust for the second year. The main change over time was addressing sustainability issues in marketing and sales. We requested modifications in activities, timeline, finances, and means of verification related to this aspect. S.P.E.C.I.E.S. added the following: during the submission of the interim report in 2023, we acknowledged the challenges of exploring domestic market opportunities for Amigos de Felinos products, particularly within Costa Rica. S.P.E.C.I.E.S. was concerned about their ability, as the only international partner, to coordinate with other partners on the ground in advising and training on business start-up matters. However, in agreement with project partners and UCR, they believed it was critical for communities to acquire these essential skills. Therefore, they forfeited some of the consultancy budget requested in the original proposal and allocated it to a new local consultancy aimed at training. We enlisted Yo Emprendedor, specialised in entrepreneurship, to correct many flaws in local production and business thinking (see Section 3).

Compared with our previous projects in community wildlife management, the logical framework and monitoring and evaluation system were the most practical and helpful to date in keeping us on track. Reporting was not just for compliance; the format and guidelines helped refresh plans and maintain awareness of status. Having one staff member in charge facilitated constant reminders about the indicators to assess and the pace. Natalia, who donated part time, was responsible for checking compliance on substance and timing, and she pushed Ronit to better control the pace of the entire team and partners. Partners and stakeholders were not easy to keep on track due to other commitments and limitations. Feedback to them was constant, and we adapted if they informed us of changes. Changes reflected discussions with partners about their ability or feasibility to measure certain indicators. We received limited internal evaluations, mainly from supervisors at CIBET and the School of Biology, who focused on administration. Technical feedback mostly addressed logistics and suggested collaborations. External evaluations of the work included feedback from colleagues such as juries and collaborators in fieldwork activities, providing constructive criticism. Comments on methodological validity were relevant, and comments on the risks of working with local communities and field observations were noted for further analysis of stakeholder perspectives. In the stage of disseminating results, we will actively seek peer review and "member check" (review by participants).

6 Actions taken in response to Annual Report reviews

We tried our best and prioritised answering all comments and issues raised by both Annual Report reviews. In the AR1 comments were related to sustainability, risks or assumptions. As requested, we added further details and context to the summary (Section 1), other comments are addressed in Sections 3.3, 3.4, 4.1 and 9 of this report. Additionally, for the second Contest, we tried to incorporate suggestions made by our evaluator during the Mid-Term Review (see

Sections 5, 7, 9 and 12.3). From the AR2, the reviewer requested to include more evidence in poverty alleviation (Section 4.2), and to clearly address on the project exit strategy (Section 9), both issues are referred to in the respective sections.

We performed several modifications to the logical framework and the timeline of operations, approved by BCFs Administrators. In our reassessment of Output 2, which could not reach the goal of 4 new communities because one was disqualified, we thought that it is better to accept we could not reach the initial goal than resetting our goal (we are stubborn scientists). And similarly, we resisted changing indicators that were theoretically informative but difficult to implement in the practice (see criticisms on Annex 2). The possibility of a project extension recommended due to issues on capacity and human resourcing was considered, but discarded for not having extra funding for the extension. The reviewer also suggested “re-evaluate the indicators under Output 4 to enable clear attribution for final reporting”. We prefer inconclusive evidence rather than redesigned incentives at a preliminary stage of analysis. On one hand, Output 4 was supplementary with the achievement of the other three outputs with the intention to have explicit the component of monitoring and evaluation (that was useful for operations); current indicators are then somewhat redundant to evidence if all the outputs evidenced changes. On the other hand, Output 4 is stated as a test of hypothesis that will require a more scientific approach to triangulate all evidence, in Section 3 we discussed the conclusions with which we are comfortable with preliminary data analysis, conservatively.

7 Lessons learnt

This project emphasises the significance of understanding the intricate contexts of local communities. By inspecting the challenges and opportunities within these areas of great biodiversity, we tailored our conservation efforts. Furthermore, our experiences underscored the importance of standardised protocols with flexibility for adaptations in teaching-learning under community-based schemes. This approach allows for capacity building while accommodating the unique needs and contexts of participating communities. Following that line, adaptability in methodological design and program implementation was key to sort constant emerging social issues, while expanding the human understanding on the circumstances of local participants (and other stakeholders) for not judging but facilitating processes of interest. That included ethical considerations to benefit and not harm when working with vulnerable populations, and promoting welfare when demanding from them a series of requirements and contributions.

Presenting these efforts not only as environmental conservation but also as pathways for community growth and entrepreneurial success paved the way to a successful strategy to promote human-felid coexistence. It enabled us to engage communities more meaningfully, capturing their interest and participation. In terms of methodological design, we learned the importance of considering the impact of poverty on conservation initiatives. Our approach involved a mix of quantitative measures and qualitative observations; quantifications allowed tracking the goals and qualifications allowed us to gain deeper insights into the effectiveness of our interventions and better understand the multifaceted challenges faced by communities.

Key lessons on communication included a main achievement in making the existence and objectives of the Amigos de Felinos Contest visible in national media, generating conversation in society about feline conservation and the need of benefits for communities, and having clear dialogue and alignment of expectations among project partners. On that last one, proactive measures to establish partnerships and secure agreements allowed smooth collaboration. Similarly, feedback requests, continued clarifications, admission and correction of errors and utilising a combination of analog (i.e., talks, posters, murals) and digital communication methods led to more effective engagement among stakeholders. Platforms such as radio, alongside digital approaches, and in person reinforcements, enabled us to reach a broader audience and foster meaningful conversations about feline conservation and community involvement. Marketing and commercialization lessons are detailed in Annex 15 and 16.

Using a contest to scale up community-based wildlife management revealed valuable lessons. Employing two feedback iterations proved beneficial, suggesting the importance of continuous testing and adaptation. Monitoring and evaluation played a crucial role in timely adjustments.

Despite initial costs, the project showed cost-effectiveness in reshaping social norms towards coexistence behaviour (in the long run), when comparing the longer term and high cost of our pilot tests. However, intensive approaches posed challenges in designing indicators, data collection, and the effectiveness of the training that varied based on participants' proactiveness. Continuous reminders about conservation goals linked to the benefits during the project are essential for protecting wildlife and avoid the threat of green-washing.

Looking back, into the central ideal of local governance, several areas for improvement become apparent. First, we should invest more resources on developing local leadership for establishing robust local governance structures. It's essential to foster a sense of commitment and prioritise ethical and transparent standards for sustainable impact. The profile of the members of this scheme may be better screened for accepting the main importance of collective welfare while also respecting individual interests, ensuring compatibility to benefit as many people as possible with social justice. This requires maintaining a balance between rights and duties, preventing individuals from taking advantage of the intent for social inclusion for delivering no contributions and feeling entitled to benefits with no conditions. Additionally, we should focus on the capacities and values of local leaders to coordinate and find common ground with other communities and organisations.

Empowering local wildlife governance remains challenging on multiple fronts. While advocating for consistent support from Society to deserving communities, we question the line between guidance and over-involvement. Our team sometimes assumed a motherhood role to defend the ideal from the constant pressures in this early stage of organisation against local control. Despite efforts to encourage autonomy in AMFE, we recognize the need to allow them to make decisions and even face setbacks. We remain hopeful about the potential of local communities, though addressing entrenched disempowerment is daunting. The extent to which we can facilitate their growth remains uncertain, with a new stage depending on the emergence of new leaders faithful to the principles in the formal statutes.

Project management between small NGOs and public universities presents contrasts. Controls were relevant and protective for all involved, but when those controls endangered project activities, it was Gente y Fauna the one assuming risks for keeping the pace the best we could. Our lack of experience with processes at the UCR burdened our staff with administrative tasks, hindering efficient project management. This overload affected our ability to correct indicators and conduct data analysis promptly. Underestimating the required human resources further complicated project management. Assigning partial-time roles to staff due to budget constraints exacerbated workload issues. We recommend allocating a higher percentage of the budget to human resources for complex projects to alleviate these challenges.

Considering the complexity of this project, we acknowledge that not everyone may be willing to undertake such a demanding workload. However, we advise recognizing that fostering human-wildlife coexistence entails effort. It's crucial to frame this effort positively, emphasising phrases like "I do want to invest effort". Highlight the benefits of such efforts, including the enjoyment derived from the work, the sense of personal responsibility, and the pride it brings. Moreover, we suggest educating citizens to envision opportunities for well-being associated with biodiversity and to cultivate a sense of belonging within a network and community.

8 Risk Management

At the conclusion of the project one new risk was detected on the Association Amigos de Felinos receiving advice from uninformed new partners with different principles and work ethics (different from the design of the scheme provided during training). This is a recent situation and we hope this will be corrected, however we have no control over this, except to inform collaborators about the observations as respectfully as possible. We expect that sharing this report will assist stakeholders to reflect on the process to avoid its corruption.

Not new, the risks related to local governance increased at the closure of the project. Those risks are deeply rooted in what is known in the literature about community-based natural resource management about participatory decision-making. Our team accompanied leaders as much as

possible, maybe too much, and in the transition to local autonomy the gaps in capacity and biases in principles came to the surface in the form of a lack of transparency and inclusion. See section 3 and 7 for details, while our further data analysis will inspect the processes.

9 Sustainability and Legacy

The exit strategy for our project involved a planned transition of responsibilities from our team to the association leadership based on community coordinators. Initially, we envisioned a six-month period for this transition at each new site winning the contest, aiming for a more consolidated local leadership and an independent association by the project's end; more consolidated meaning the involvement of all members in continuous operations. Our strategy also emphasised the pursuit of long-term financial sustainability through partnerships and access to international markets, prioritising the link between community entrepreneurship and conservation efforts. We anticipated generating revenue from sales to support sustainable local conservation initiatives. However, questions arose regarding whether the association possessed sufficient autonomy to operate post-project, and, it remains unclear when the sales revenue contributions and commercial alliances will uphold the green label.

With the addition of new leaders from other communities, the association can flourish when its members take ownership by actively participating and familiarising themselves with project processes and objectives. While they possess the necessary tools and inductive training to continue the work initiated, sustained success depends on their intrinsic drive and proactive engagement (to believe in themselves). The current structure of the inter-community group is there to be transformed by the members into a more innovative and practical one. Although the Association is making strides in developing its identity and rules, there is a need for its leaders to prioritise adherence to their statutes, which have been overlooked and neglected by the directives. Association members must advocate for the restoration of trust through transparent accountability and the formulation of clear action plans for short, medium, and long-term goals.

The cultivation of sustainable partnerships with organisations like S.P.E.C.I.E.S. and Yo Emprendedor has been crucial in extending the opportunities of AMFE communities beyond the project's duration. Given that during the project we could not achieve concrete sales systems, these partnerships are committed to continuing their support, focusing on areas such as entrepreneurship and marketing. While initial expectations for retail partnerships were not fully met, efforts have been made to establish new partnerships and secure agreements in advance of future initiatives. Despite facing challenges, these partnerships have laid out strategies for enhancing AMFE's capacity and expanding its reach, particularly in international markets like the United States. Moving forward, S.P.E.C.I.E.S. considers the allocation of budget for a dedicated staff member to focus solely on achieving the proposed results given the demanding nature of our tasks and the pioneering objectives of establishing international partnerships.

AMFE's appeal to various donors has led to support from organisations such as the Mohamed bin Zayed Species Conservation Fund (MBZ) and WWF Central America. This support has been instrumental in funding projects like the construction of a Friends of Felids chicken coop and providing training and materials for ecological management. Additionally, collaborations with organisations like Costa Rica Wildlife Foundation may help strengthen administrative capacities. As AMFE continues to grow, similar opportunities are expected to arise for its newest sites, ensuring sustained support for its conservation efforts.

While the advanced work achieved was commendable, ongoing support remained crucial, particularly for newly added communities. We must recognize that coexisting with wildlife, especially endangered predators, such as felids, comes with costs. Society must share these costs to avoid burdening local communities alone when they are the ones making the daily efforts to apply good practices of coexistence. External support, including financial investment, government backing, and accessing green markets, is vital to ensure the ongoing success of the network through the label Amigos de Felinos.

The legacy of the project extends beyond its duration, impacting local communities, governmental authorities, and the conservation sector. First, we provoked a shift in the

relationship between locals and felids; communities were inducted on actively participating in attending predation events, collaborating with authorities to address such incidents effectively. Additionally, the implementation of surveillance and camera-trap monitoring ensures ongoing vigilance against poaching and other threats to wildlife. Despite initial resistance in certain communities, like Las Brisas and Las Armenias, efforts to introduce surveillance measures have led to gradual acceptance. Furthermore, the project facilitated community-driven changes that they share through various channels, including the website, social media platforms, and partnerships. This not only highlights the progress made but also promotes a new paradigm in wildlife conservation, emphasising welfare improvements beyond financial considerations.

The project's impact has been acknowledged by the Ministry of Environment, as evidenced by its inclusion in national reporting for the Convention on Biological Diversity (CBD). This recognition has fostered ongoing collaborations with NGOs, academia, and municipalities, indicating a broader endorsement of the project's objectives and achievements. Moreover, international interest from colleagues, from such countries as Argentina and Panama, reflects the project's potential for replication and adoption in other regions. This underscores its significance as a model for effective community-based conservation initiatives globally.

Now that the project has concluded, the role of the staff at CIBET and at Gente y Fauna extends beyond implementation to the critical task of processing vast amounts of data. Their responsibility lies in extracting deeper lessons supported by interdisciplinary scientific evidence and disseminating findings to raise awareness and influence policy. Additionally, the staff will offer guidance to individuals and organisations interested in community-based conservation initiatives and facilitate collaboration with the AMFE. Remaining vigilant, they will monitor any threats to the project's ideals, values, and principles, while observing the evolution of the four sites involved over the years to come.

10 Darwin Initiative identity

The Darwin Initiative is better known by the conservation sector and the academic sector in Costa Rica after our efforts. In talks with colleagues, they were unaware of the funding opportunities and we were approached with questions. Furthermore, Ronit includes in her classes some lessons of funding search and highlights the advantages of a donor like the Darwin Initiative that is involved in quality controls, not interfering but supporting. Emails with invitations from BCF, are also shared with our contacts to promote the opportunities. For our plans of dissemination of findings during 2024, we expect to reach diverse audiences and provide clarity that the Darwin Initiative is the kind of external founder that does care about impact, and that impact must balance biodiversity conservation and poverty alleviation.

From social networks and professional talks, to informal meetings and most materials produced, all displayed the logos of Darwin Initiative and UKAid (and later BFC) and the acknowledgement to the UK Government (Annex 13). Promotional materials, like magnets, shirts, mugs, and more, were delivered with the logo on them to local participants. The project staff used the logos in their email signatures as well. The interaction among Amigos de Felinos and Biodiversity Conservation Funds in social networks was very supportive (our partners were proud of the likes and shares). We give ourselves the task of sharing with the public every step of our experience and be conscientious to recognize the organisations involved. Regarding the Contest, we always tag Darwin Initiative (now @ BiodiversityChallengeFunds) and Defra accounts in our posts; Gente y Fauna and Amigos de Felinos have Facebook (most active), Instagram and YouTube accounts and we have linked back to Darwin Initiative channels.

11 Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes, Ronit [redacted] as coordinator is the default focal point. Email: [redacted]
Has the focal point attended any formal training in the last 12 months?	No

What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 70% [10] 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. Our team constantly inspect ethics during activities beyond institutional requirements thanks to Ronit's previous training at the University of Florida. She tries to promote her standards to the rest of the team, with Natalia following the same rules based on experience.	

12 Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				Previously purchased
Others (see below)				
TOTAL	103238	101641		

Staff employed (Name and position)	Cost (£)
Ronit Amit Rojas - Project Leader	
Natalia Valverde Zúñiga - M&E Officer	
Fabiola Chirino Fernández - Field Operative	
Ingrid Daniela Mora Miranda - Assistant	
Andrey Vallejos Cambronero - Assistant	
Staff of partner AMFE	
TOTAL	29064,21

Capital items – description	Capital items – cost (£)
Note from Ronit: all capital items were bought in the previous period for convenience.	
TOTAL	

Other items – description	Other items – cost (£)
Shipping & Courier Services	£1.176,33
TOTAL	£1.176,33

12.2 Additional funds or in-kind contributions secured

Most commitments were surpassed, although these are rough estimations. Main contributions were in-kind in the form of infrastructure, transportation, per diem and human resources. The support of the University was huge, which made us very proud.

Source of funding for project lifetime	Total (£)
University of Costa Rica (press communications, assistants, vehicles, fuel, infrastructure, software, others)	
Gente y Fauna (professional ad honorem time, volunteers and international fellows, field equipment)	
Soul Communications (extra publicity pieces)	
Amigos de Felinos (volunteer time)	
Contest participant communities (infrastructure, transportation)	
TOTAL	75000

Dr. Amit is soon inscribing a project at CIBET aimed at data analysis and dissemination of results. Currently, Ronit and Natalia are providing voluntary time for the months producing the reports and publications. Consultant José Tenorio offered free web support during 2024. Yo Emprendedor and SPECIES have intentions to continue supporting AMFE. After the project's lifetime, two other projects have started in collaboration with AMFE (no data available).

Source of funding for additional work after project lifetime	Total (£)
Gente y Fauna (in-kind human resources)	
University of Costa Rica (infrastructure, software)	
Tenorio Studio (web support)	
TOTAL	13000

12.3 Value for Money

Evidenced by the counterpart investment shown in the previous section, this project was complemented with human resources, infrastructure, and in-kind support in unexpected amounts. We were alerted to this by the external evaluator during his visit, and we are proud of the capacity of the UCR, as well as Gente y Fauna, a grassroots organisation that mobilises human resources. Our team was experienced in making the best of limited funds and carefully managed each investment. We encountered challenges with administrative regulations at the UCR, which caused some delays but ensured proper institutional oversight. We are convinced that the money spent on consultancy services was valuable, especially since our partners handled most of the work and the outcomes were essential for project success. However, administrative tasks created a heavy workload, leaving less time for crucial operations and causing burnout among our team members. One issue was the lack of funding from UCR for our project leader's salary, which was eventually covered by Gente y Fauna on a voluntary basis. The investment allowed for national reach to include as many communities as possible and to inform large audiences. We were successful in attracting media attention, potential allies, and governmental authorities. International reach was also notable thanks to social media (see Annex 14). Post-project, the University, Gente y Fauna, and S.P.E.C.I.E.S. continue to invest in data processing and reporting, dissemination of results, accompaniment for the participant communities, and so on. New partners were successfully attracted. Cost-effectiveness and reach of the outcome of the proposal evidence good value for the money invested.

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

At this moment we have not developed materials for further publicity of the project, we plan for the rest of 2024 to allow our team to process all data to produce diverse formats for dissemination of findings. Most products of the project will be publicly shared in the repository Kerwa of the University of Costa Rica (<https://www.kerwa.ucr.ac.cr/>).

Annex 1 Project’s original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Communities vulnerable to wildlife conflict receive benefits from surveillance of jaguar and puma interactions by competing for assistance in the affiliation into a national network of Friends of Felids marketing wildlife friendly production.			
<p>Outcome: Participation in a national contest motivates local development associations to assess and improve their initial wildlife governance status, particularly human-felid interactions in most vulnerable areas (buffer zones and biological corridors).</p>	<p>0.1 50% of finalists, that comply with location and interaction criteria and present the reapplication, will increase their score significantly (X2-test).</p> <p>0.2 Qualitative records will enrich policy discussions from the 3000 community development associations (ADIs in Spanish) nationally that may deliver hundreds of inquiries during the contest period (1st iteration complete, 2nd iteration in progress by jan24).</p> <p>0.3 People living in winner communities increase their Acceptability of jaguars and pumas and their Benefit perception, while their Risk perception decreases significantly from application to end of project (X2-test, gender specific analysis; baseline data will be first application results).</p>	<p>0.1 Application scoring form for the contest (2021 and 2022) filled by participant Associations, with remote support from our team. This form will assess initial conditions about wildlife governance; changes will be assessed in the reapplication scoring for finalists, and at the end of project for winners.</p> <p>0.2 Records of the content of communications with applicants through different media during the contest (coded qualitative database).</p> <p>0.3 Pre- and post-test results with a structured questionnaire on Wildlife Acceptance Capacity model, applied to a sample for each community (from list of each ADI’s members; 1:1 gender inclusion).</p>	<p>The contest offers attractive prizes for communities to participate, considering the health crisis.</p> <p>Contest guidelines for participants clarify the difference between item prices and the actual value and commitment to become part of the network of Amigos de Felinos.</p> <p>Relevant communities feel empowered and supported for applying.</p> <p>Existent community development associations (ADIs in Spanish) are searching for opportunities for community development or have allies that present the opportunities to them.</p> <p>Sample size at winner communities allows testing</p>
<p>Output 1</p> <p>Improved capacity for finalist communities to score their wildlife governance status with evidence about coexistence with wildlife, including interactions and uses, achieved through the process of the contest.</p>	<p>1.1 Number of spatial and temporal positive and negative human-felid interactions identified by participant communities (i.e., environmental threats, livestock husbandry, and other coexistence behaviours).</p> <p>1.2 Number of sustainable coexistence practices and uses (existing and potential) of wildlife at participant communities identified by participant communities increases by the end of the project in Friends of Felids’ communities.</p>	<p>1.1 Contest application and reapplication forms and its rubric of assessment.</p> <p>1.2 Field inspections by our experts with local representatives (inclusion of heterogeneous key informants, by gender and socio-economic characteristics), with notes and supporting information, such as images.</p>	<p>Application forms are validated (expert reviews, cognitive tests, and pilot tests).</p> <p>Objective evidence is available for quantification and detection of interactions.</p> <p>Initial capacity to assess wildlife interactions is low, wildlife as a resource has no explicit management planning.</p>

<p>Output 2</p> <p>Operational wildlife surveillance based on citizen science at winner communities, two in 2022 and two in 2023, become models at the national level under the network Amigos de Felinos.</p>	<p>2.1 At least one monthly update by locals during monitoring under the project, on status of the surveillance, spatial changes, and local responsible persons.</p> <p>2.2 Sampling effort, by number of night-traps from active camera-trap stations located around the limits of each winner community, is maintained between 240-450 monthly from the monitoring start date to the duration of the project.</p> <p>2.3 Number of hours per month invested in relevant tasks by each local monitoring team with a goal of at least 10-hours per week (more needed depending on larger areas and local context) involving at least 4-6 members per community (with gender assessment).</p> <p>2.4 Grades from evaluations of participants for the modules are maintained over 8/10 points on average.</p> <p>2.5 Media exposure of the winner communities and their efforts as Amigos de Felinos increases after affiliation</p>	<p>2.1 Technical report of camera-trapping including camera stations arrangement and status (active, lost, removed), night-traps, main species captured, local participation, field experiences, and mapping of the area.</p> <p>2.2 Database of effort in hours of participation by person (accounting for gender and inclusion data), specifying tasks such as practices, stations maintenance, group coordination, data collection and surveillance.</p> <p>2.3 Learning modules (1 and 2) reports and evaluations to improve retention and reflection of content.</p> <p>2.4 Communications and media technical report with data on press efforts and media hits, showcase and storytelling events, publicity estimate, and social media analytical tools</p>	<p>Support from the Ministry of Environment is maintained.</p> <p>Private landowners participate by allowing access for wildlife monitoring.</p> <p>Adequate health protocols allow implementation of in person activities to complement remote learning.</p> <p>Access to digital communications by participants supports remote implementation of activities with the project team. Costa Rica has good coverage and improved internet and phone networks for most sites.</p> <p>Complementary means of communications overcome any technological limitations.</p>
<p>Output 3</p> <p>Consolidated network of communities that receive benefits as entrepreneurs that coexist with jaguars and pumas, with the winners of this contest added to the pilot three existing at the beginning of 2021.</p>	<p>3.1 Rate of income to investment for members of the local team of entrepreneurs. Baseline to be set at the end of the induction at winning communities, we expect opportunistic spikes in sales during the period of this project (rate is likely to have a slow growing pace).</p> <p>3.2 Number of hours per month invested in relevant tasks by each local entrepreneurship team with a goal of at least 20-hours per week involving at</p>	<p>3.1 Technical report and database of productivity: inventories (inputs/outputs), costs/sales, reinvestment, local labour, etc.</p> <p>3.2 Database of effort in hours of participation by person (accounting for gender and inclusion data), specifying tasks such as practice, creative design, acquisition of materials, group coordination, production, promotion, events, etc.</p>	<p>Market for fair trade and eco-labels gradually recovers from the global crisis.</p> <p>Local leadership assumes wildlife management under the scheme.</p> <p>Earnings from production under the label generate enough utilities for supporting both conservation and</p>

	<p>least 5-8 members per community (with gender assessment).</p> <p>3.3 Grades from evaluations of participants for the modules are maintained over 8/10 points on average.</p> <p>3.4 At least one monthly update by locals, after the end of contest and until the end of the project, on the status of the intercommunity organization, planning, achievements, and division of responsibilities.</p> <p>3.5 Income from sales of products and services by customers reached by the campaign, increases monthly for the duration of the project.</p> <p>3.6 Number of partnerships and alliances built through the campaign increases during the project. Data disaggregated for local, national and regional partners. Baseline not available.</p>	<p>3.3 Learning modules (1 and 3) reports and evaluations to improve retention and reflection of content.</p> <p>3.5 Communications and media technical report of marketing analysis with Key Performance Indicators (KPI): reach and return of investment from customers and alliances, and Social Media Analytics (more precise indicators will be part of the design of the communication strategy-activity 1.1).</p>	<p>development components of the scheme.</p> <p>DINADECO maintains support to the community development associations.</p> <p>The association Amigos de Felinos maintains activity and facilitates affiliation of new communities to conform the network.</p>
<p>Output 4 Monitoring and Evaluation: Evidence supports the thesis that the eco-label reached the desired communities, and generated sustainable benefits that resulted in community-based wildlife management, with the contest as a marketing tool for scalability.</p>	<p>4.1 Scores of winner communities reflect targeted impact (impact indicators for the assessment).</p> <p>4.2 Scores for Perception of benefits increase in participants from application to the end of the project.</p> <p>4.3 Wildlife presence and relative abundance (with emphasis in jaguars, pumas) around the communities is maintained during this project term. Baseline to be determined in the three first months of surveillance.</p> <p>4.4 Ratio of wildlife pro-coexistence behaviour to threats to human-felid coexistence identified at each</p>	<p>4.1 Scoring form for the contest reapplied for 2022 participants (2023 participants will need follow up beyond this project)</p> <p>4.2 Pre- and post-test results with a structured questionnaire on Wildlife Acceptance Capacity model, applied to a sample for each community (from list of each ADI's members; 1:1 gender inclusion).</p> <p>4.3 Technical report and database of photo-trapping (standard spreadsheet for detections, date, location, species, behaviour).</p> <p>4.4 Monthly report and database of human-wildlife interactions by wildlife surveillance teams (including</p>	<p>Coverage of the project reaches large audiences at the national and regional level.</p> <p>Political powers keep allowing democratic participation, autonomy of academy and community initiatives to disseminate results (no interference).</p> <p>Standards of scientific quality are maintained or increased for interdisciplinary studies.</p>

	community increase monthly during implementation of the project.	photographic record of activities, reports of poaching, felid predation, wildlife sightings, and more).	
<p>Activities</p> <p>1.1 Design of communication strategy as a two-fold process, one targeting communities to apply and other targeting a green market for supporting the eco-label.</p> <p>1.2 Elaboration and validation of guidelines, scoring form on wildlife governance and other data collection instruments (measurement validity and reliability).</p> <p>1.3 Invitation dissemination, reception of applications with an assistance centre using different media to attend inquiries that are recorded for analysis, and selection of finalists.</p> <p>1.4 Field inspections from our experts, with key informants, to assist communities at verification and potential improvements in human-felid coexistence that increases scores on wildlife governance.</p> <p>1.5 Reception of improved applications, selection of winners by an honorary guest panel, and awarding ceremony.</p> <p>2.1 Recruitment and induction of a local wildlife monitoring team during capacity building module 1 (workshops at communities).</p> <p>2.2 Participatory camera-trapping monitoring establishment under learning-by-doing capacity building sessions (module 2), including camera stations set up, equipment and data handling, surveillance and reporting.</p> <p>2.3 Showcase of photo-trapping results as part of the communication campaign for the contest, with marketing components of visual identity, storytelling, real-time updates.</p> <p>3.1 Recruitment and induction of a local entrepreneurs' team during capacity building module 1, that uses Amigos de Felinos as added value.</p> <p>3.2 Application of the eco-label to selected existing or potential products and services under learning-by-doing capacity building module 3 (development of identity, skill improvements, and reporting).</p> <p>3.3 Showcase of advances in labelled products and services as part of the campaign for the contest, with marketing components of visual identity, storytelling, real-time updates.</p> <p>3.4 Coordination of administrative tasks by winner community representatives meeting pre-existent Amigos de Felinos for capacity building related to commercialization and sustainability.</p> <p>3.5 Marketing for customer acquisition and alliances at local and national scale as part of the campaign aimed at generating financial benefits for the eco-label scheme.</p> <p>3.6 Exploration and test of regional and potential global markets with development of partners and approach to e-commerce, also supporting a convenient and sustainable supply chain.</p> <p>M&E</p> <p>4.1 Statistical analyses for monitoring of change in wildlife governance (including pro-coexistence behaviors) in relation with participation in the contest (from application and reapplication forms).</p> <p>4.2 Survey with structured questionnaire on Wildlife Acceptance Capacity (WAC) model to a sample of community members to assess relative change of individuals (pre- and post-test).</p> <p>4.3 Evaluation of learning-by-doing processes for each module at participant communities, disaggregated by gender and inclusion criteria.</p> <p>4.4 Analysis of changes from wildlife photo-trapping (descriptive and statistical): list of species, curves of accumulation, relative abundance, interspecific interactions, and other ecologically relevant data.</p> <p>4.5 Performance analysis (using Mixed Methods) of the Amigos de Felinos scheme for winners to assist the fieldwork team if corrective actions are needed.</p>			

Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements
<p>Impact</p> <p>Communities vulnerable to wildlife conflict receive benefits from surveillance of jaguar and puma interactions by competing for assistance in the affiliation into a national network of Friends of Felids marketing wildlife friendly production.</p>		<p>From the 69 locations in contact for the project around the country, 17 participated in 2022 and 8 in 2023 in the Amigos de Felinos Contest. As indirect beneficiaries, during the application for the contest the inhabitants and their collaborators inspected, most for the first time, the status of their surrounding wildlife from a community perspective (Annex 6). Annex 7 provides preliminary evidence of the perceptions and decisions of participants about the contest and the proposed scheme of wildlife management. Direct benefits were received by 3 communities that were effectively affiliated to the Association Amigos de Felinos (Las Brisas de Pacuarito, Las Armenias de Upala and Piedades Sur de San Ramón), who already included 3 pilot towns at the north of Rincón de la Vieja National Park, in Upala as direct beneficiaries, and are now the base of the national network. A fourth winning community was not affiliated, Caño Negro, but provided relevant experiences to improve the contest and the scheme. Benefits are better described in the text of the report; in summary, communities started the set up for wildlife surveillance and marketing of felid inspired local products.</p> <p>The conservation sector of the country was presented with a perspective of bottom-up governance that is not usually a protagonist. Colleagues in academia, NGOs and authorities were involved as juries and collaborators; we perceive there is still scepticism about the role of organised local people. On the other hand, the general public that we reached with the contest was probably not the same as the target green market for the label Amigos de Felinos. Marketing remains the weakest point of our scheme to date, with a great potential not fulfilled, but under a promising path nationally and internationally (Annex 15 and 16).</p> <p>Lessons learnt about the philosophy, theory and methods in the design of a contest as a tool for scalability of community-based wildlife management are plenty. Similarly, our technical accompaniment for local people to affiliate the scheme Amigos de Felinos was a complex experience. We offer some recommendations in the text of the report and in Annexes 10 and 12.</p>

<p>Outcome: Participation in a national contest motivates local development associations to assess and improve their initial wildlife governance status, particularly human-felid interactions in most vulnerable areas (buffer zones and biological corridors).</p>	<p>0.1 50% of finalists, that comply with location and interaction criteria and present the reapplication, will increase their score significantly (X2-test).</p> <p>0.2 Qualitative records will enrich policy discussions from the 3000 community development associations (ADIs in Spanish) nationally that may deliver hundreds of inquiries during the contest period (1st iteration complete, 2nd iteration in progress by jan24).</p> <p>0.3 People living in winner communities increase their Acceptability of jaguars and pumas and their Benefit perception, while their Risk perception decreases</p>	<p>Our contest attracted local participants with a message of becoming “roaring communities” (Annex 13); we documented the processes of self-evaluation of wildlife status under our guidelines, and we obtained evidence of diverse motivations to manage interactions with wildlife (Annex 7). After the contest, the inter-community network of communities that coexist with felids was set and will confront many challenges ahead for its consolidation in the short-term.</p> <p>0.1 Scores of wildlife governance were created with 5 subject axes relevant to the project: (1) local entrepreneurship potential, (2) community governance potential, (3) ecological value for felid conservation, (4) intensity of threats to wildlife, and (5) intensity of good practices for coexistence. Finalists were 15 for 2022 and 5 in 2023. The mean score was 64.9 ± 13.2 of a maximum of 100 points. We observed 8 out of 13 participants changed their total score during the contest, 7 increasing (53.8%) and 1 decreasing (statistical tests were inadequate, therefore, we defined as differences the change of at least 10 points in the total score). Scores will inform case studies we will later develop in triangulation with qualitative data of the project. Evidence provided in Annex 6.</p> <p>0.2 People from 69 locations all around the country contacted our call-centre for the Contest (evidence provided in Annex 7). Qualitative records include: 59 phone calls, 191 voice messages, around 58 chats of text, and 15 fieldwork reports for 2022; 24 phone calls, around 30 voice messages and 18 chats of text, and 20 fieldwork reports for 2023. To date, approximately 60% of all records have been transcribed and coded. The number and distribution of participants in the contest surprised the whole country (many unknown sites), a first relevant data for policy discussions that justify jaguars as a national focal species and to incorporate communities as stakeholders. Preliminary emerging themes are labelled: “traditional wildlife governance”, “a promise of benefits from wildlife”, “felids’ impact on people-people relations”. The nuances in definitions and context about these themes and others still to emerge are providing new perspectives for national policy and for local decision-making.</p> <p>0.3 The pre-test sample had 289 interviewees and we had 156 for the post-test. Sample effort and descriptive statistics are presented in Annex 8. A preliminary test of differences between measurements of the Wildlife Acceptance Capacity model before and after the project at pilot communities showed an increase in acceptability of jaguars and pumas ($p < 0.00$), and an increase in social trust ($p < 0.00$). No other difference was</p>
---	---	---

	<p>significantly from application to end of project (X2-test, gender specific analysis; baseline data will be first application results).</p>	<p>detected as significant for that sample or for the sample at winning communities. However, our analysis still needs to refine the content and discriminant validity of the measurements.</p>
<p>Output 1. Improved capacity for finalist communities to score their wildlife governance status with evidence about coexistence with wildlife, including interactions and uses, achieved through the process of the contest.</p>	<p>1.1 Number of spatial and temporal positive and negative human-felid interactions identified by participant communities (i.e., environmental threats, livestock husbandry, and other coexistence behaviours).</p> <p>1.2 Number of sustainable coexistence practices and uses (existing and potential) of wildlife at participant communities identified by participant communities increases by the end of the project in Friends of Felids' communities.</p>	<p>Evidence provided in Annex 6.</p> <p>The total of 18 communities that sent applications for 2022 and 2023 made an effort to assess their wildlife governance status: looking for evidence, having community discussions, and consulting our call-centre throughout the period (see Annex 7). That qualitative information we collected will serve to develop study cases for the participants to inform about the relevance of the integrative context at different communities.</p> <p>1.1 The total interactions identified by participants was 209, including 111 reports of non-conflictive or positive sightings and signs of presence, 82 predation events on diverse livestock; reports of deaths were 16, including 7 jaguars, 4 pumas, 4 ocelots, and 1 oncilla. Causes of death were 6 shooting in retaliation, 4 roadkill, 2 poisoning, one infanticide, and 3 unknowns. Most reports were vague and lacked evidence at the first stage of the application to the contest, with the accompaniment of the call-centre and our technicians at field inspections, the finalist communities were able to collect better and more complete information, tracking the evidence the best they could (camera-trapping data, social network comments, witness interrogations, and so on).</p> <p>1.2 Increase in sustainable practices could not be accounted for by the end of the project. In the form for the contest, participants had a check list of potential practices and were asked about how many property owners used each practice and a description of the use, we also asked for evidence, such as pictures. Responses were admittedly inaccurate estimations (it was too effortful collecting better data). For the purposes of the scoring for the contest, the jury panel inspected the evidence to assign a score of "intensity" for the use of practices and also the "intensity" of threats to wildlife. Therefore, instead of the number of practices, we report the mean values on scores for coexistence practices ranged 11.0-27.0 points (out of 30), and on the scores for threats to wildlife ranged 4.5-16.0 (out of 18); these are disaggregated by community in Annex 6. Our team was not able to update the records of coexistence practices at the end of the project, but each winning community got assigned the task to keep track of good practices in the log for the wildlife monitoring team.</p>

		Indicators 1.1 and 1.2 are better interpreted in complement with indicator 0.1 to evidence the impact of the contest in communities assessing their wildlife governance. These quantifications do provide a sense of impact in the desired path of change. The main limitation we found for increasing the validity and relevance of these measures was the logistics involved, not only in creating the measurement instruments and providing the assistance to participants, but also in the overload of our human resources in a tight calendar of other activities of the project. On the other side, the case studies we plan to elaborate by triangulating data from different sources will get enriched by the quantifications and the deeper qualitative nuances on governance.
Activity 1.1 Design of communication strategy as a two-fold process, one targeting communities to apply and other targeting a green market for supporting the eco-label.		COMPLETED. The main difference from the plan was that the communication strategy had to focus on the motivation of communities to participate, as well as on the role of the public to recognize the protagonism of local people to manage wildlife. Therefore, the target on a green market was postponed and transformed into a separate strategy. We received much feedback for the strategy in the first year and adaptations were required for the second contest to incorporate lessons in relation to logistics and technical challenges.
Activity 1.2 Elaboration and validation of guidelines, scoring form on wildlife governance and other data collection instruments (measurement validity and reliability).		COMPLETED. Guidelines and forms were validated through cognitive testing and expert review from relevant institutions (legal and ethical approvals were obtained) and renowned colleagues. For the second contest, the geographic extent was reduced due to logistic and technical constraints (i.e. sustainability after the project).
Activity 1.3 Invitation dissemination, reception of applications with an assistance centre using different media to attend inquiries that are recorded for analysis, and selection of finalists.		COMPLETED. We documented the reach of invitations and media coverage. Recordings and other documents were collected and are currently in the stage of preliminary data analysis. Our jury panel to select finalists was composed by a diverse group of renowned experts.
Activity 1.4 Field inspections from our experts, with key informants, to assist communities at verification and potential improvements in human-felid coexistence that increases scores on wildlife governance.		COMPLETED. Intensive field inspections worked well for the first contest. However, the second year, and with fewer participants, we duplicated the in-person effort to better clarify not only the requirements for the actual contest, but also about the long-term commitment behind winning and affiliating to the AMFE.
Activity 1.5 Reception of improved applications, selection of winners by an honorary guest panel, and awarding ceremony.		COMPLETED. For the first contest, reapplications with improvements worked as expected for the jury panel to provide scores able to select the winners. The second contest had a shorter duration and a main change

		<p>was not to include a re-application. We hosted two awarding ceremonies for the contest (2022 and 2023).</p>
<p>Output 2. Operational wildlife surveillance based on citizen science at winner communities, two in 2022 and two in 2023, become models at the national level under the network Amigos de Felinos.</p>	<p>2.1 At least one monthly update by locals during monitoring under the project, on status of the surveillance, spatial changes, and local responsible persons.</p> <p>2.2 Sampling effort, by number of night-traps from active camera-trap stations located around the limits of each winner community, is maintained between 240-450 monthly from the monitoring start date to the duration of the project.</p> <p>2.3 Number of hours per month invested in relevant tasks by each local monitoring team with a goal of at least 10-hours per week (more needed depending on larger areas and local context) involving at least 4-6 members per community (with gender assessment).</p> <p>2.4 Grades from evaluations of participants for the modules are</p>	<p>Evidence provided in Annexes 9, 10 and 14.</p> <p>Surveillance is operational in 4 sites to date: Rincón de la Vieja, Las Brisas, Piedades Sur and Las Armenias. Each community has a Monitoring Team with an elected volunteer local coordinator; all coordinators are gradually setting procedures for inter- and intra-community decision-making (local leaders are in contact with each other, and more or less with the directive board of AMFE). Photo trapping is technically better established in Rincón de la Vieja and Las Brisas, while Piedades Sur and Las Armenias are still on baseline data collection. As expected from an exemplary community, Piedades Sur had shown an impressive leadership from the start. Each community is now in charge of their annual plan of activities for surveillance.</p> <p>Indicators 2.1, 2.2 and 2.3 showed gradual usefulness, meaning that recording with confidence and monthly periodicity was difficult at the stage of baseline training, but are resulting more informative once local coordinators manage to keep better track (Annex 9).</p> <p>2.1 Periodicity of updates is still not monthly stable but is improving. At Rincón de la Vieja reports covered 13 of 24 months as they were affected by administrative issues in a test for hiring the coordinator, which was not sustained. At Las Brisas, reports covered 5 out of 10 months. At Las Armenias and Piedades Sur, reports covered 4 out of 4 months.</p> <p>2.2 Total sampling effort maintains a total of 46 camera traps (at least 10 per site), reaching a mean of 290 night/traps per month per site. The maximum total for the complete project period was 11 290 night/traps.</p> <p>2.3 Team participation and effort varied, a mean of 15 members participated per month in different tasks (active members 27 men and 33 women among the 4 sites. As teams, they invested between 0 and 8.5 hours per week per site; this resulted in a total for all sites of 433 h on monitoring for the project period.</p> <p>2.4 Grades for the recruitment and training of local participants are reported in Annex 10. The indicator showed it was a reduced percentage of participants that achieved the highest level desired, good learners</p>

	<p>maintained over 8/10 points on average.</p> <p>2.5 Media exposure of the winner communities and their efforts as Amigos de Felinos increases after affiliation</p>	<p>shower skills as leaders and were few, while a majority conformed as supporting members that learned the basics. Many participants were unable to attend all sessions or decided to drop out. Overall, for the 4 winning communities (including Caño Negro), 26% of participants achieved grades over 8 in a scale up to 10 (27 out of 103 participants; range between 11% and 36%).</p> <p>The indicator 2.4 provided different information than expected, and the measurements were inadequate for the first year, therefore we improved the grading system for the second year. Retrospectively, grading as indicator could work better; we recommend setting the goal not directly on grading (the scores) but better using the percentage of participants surpassing a desired threshold. Low grades do not mean participants are not learning, but the project will want more than 25% of participants with a good stand in the capacities built. The learning guide and complementary materials we produced remain as tools for consultation and induction of future members.</p> <p>2.5 As baseline, winner communities did not have social media presence as a group (Annex 14). Through AMFE social media and their webpage update, we increased their exposure with at least 4 posts per community during each contest period. All communities participating in the Contest were recognized. The social media posts had variable reach with higher values during the first contest due to a more aggressive communication campaign (1000 to 126 000 people). Social media reach for the second iteration varied between 150 and 12 000 people. Furthermore, at every implementation step, the project shared fieldwork advances publicly (examples of Rincón de la Vieja, Las Brisas, Las Armenias, and Piedades Sur). Additional posts afterwards varied between 4 and 10 per community for the duration of the project. The follow up included the selection of one local coordinator for social networks at each site to post on behalf of AMFE now on.</p>
<p>Activity 2.1. Recruitment and induction of a local wildlife monitoring team during capacity building module 1 (workshops at communities).</p>		<p>COMPLETED. Recruitment and induction covered 4 winning communities, although only 3 completed affiliation to AMFE. Our “hands on-leaning” process provided diverse lessons, even after improvements were made on teaching and learning guides, didactic techniques and evaluation for the second year. The process of induction can now be replicated and also serve for consultation with all materials produced. The</p>

	content includes 3 modules: induction to the Association AMFE, citizen science and entrepreneurship (See Annex 12).
Activity 2.2. Participatory camera-trapping monitoring establishment under learning-by-doing capacity building sessions (module 2), including camera stations set up, equipment and data handling, surveillance and reporting.	COMPLETED. Completed at 3 winner communities and continues active. At the community that was disqualified in the contest for 2022, camera trapping was initiated but later cancelled. For the pilot communities, we oversaw maintenance of wildlife surveillance until the end of the project.
Activity 2.3 Showcase of photo-trapping results as part of the communication campaign for the contest, with marketing components of visual identity, storytelling, real-time updates.	COMPLETED. This activity was postponed until the second iteration when we started showcasing through social media the monitoring results from Rincón de la Vieja (pilot communities) and Las Brisas . It was completed with Las Armenias at the end of the project, and Piedades Sur while writing this report.

<p>Output 3. Consolidated network of communities that receive benefits as entrepreneurs that coexist with jaguars and pumas, with the winners of this contest added to the pilot three existing at the beginning of 2021.</p>	<p>3.1 Rate of income to investment for members of the local team of entrepreneurs. Baseline to be set at the end of the induction at winning communities, we expect opportunistic spikes in sales during the period of this project (rate is likely to have a slow growing pace).</p> <p>3.2 Number of hours per month invested in relevant tasks by each local entrepreneurship team with a goal of at least 20-hours per week involving at least 5-8 members per community (with gender assessment).</p> <p>3.3 Grades from evaluations of participants for the modules are maintained over 8/10 points on average.</p>	<p>Evidence provided in Annexes 10, 11, 15 and 16.</p> <p>The path towards consolidation has had ups and downs, as a gradual process it reached relevant milestones and also exposed gaps. The Association Amigos de Felinos has grown (17 affiliations from Las Brisas, 18 from Las Armenias, and 23 from Piedades Sur; with more in process). Communication is active through a Whatsapp community with 132 members. Challenges of structuring their organisational model will continue as the inter-community group matures (see Section 3).</p> <p>3.1 During this period, the rate of income to investment for Rincón de la Vieja was 4.93, and 4.34 for Las Brisas; which means earnings of more than four times the investment. Collection of this simple data by locals was difficult and many months were unproductive during the learning process; for the estimation of this indicator, useful data cover from March 2023 and the beginning of 2024 (beyond this project's activities). Usefulness of this measure was limited because it depended on participant reporting during a gradual familiarisation with what and how to track relevant data. We worked on the motivation for locals to keep inventories and log information for them to see the relevance of tracking their investment and income (Annex 11 and 15). For Piedades Sur and Las Armenias data collection on entrepreneurship began at the very end of the project (December 2023), and they are assisting on improvement on the system of reporting (with simple technologies).</p> <p>3.2 The hours invested by the entrepreneurs at Rincón de la Vieja were higher than 20 per month during 7 out of 11 months (mean 38.7 h), and by a minimum of 12 participants. At Las Brisas a minimum of 6 participants invested more than 20 monthly hours during 5 out of 5 months (mean 33.4 h). The pilot site was less consistent in their production and had gaps of inactivity, while Las Brisas improved and maintained the efforts. Limitations for this indicator are the same as indicator 3.1 on dependence on self-reporting; Piedades Sur and Las Armenias are beginning their reporting, as mentioned (Annex 11).</p> <p>3.3 Grades for the recruitment and training of local participants is reported with indicator 2.4 above (see also Annex 10). For this indicator we did not separate grades for the content on citizen science and entrepreneurship, but had a common grade system.</p>
--	--	---

	<p>3.4 At least one monthly update by locals, after the end of contest and until the end of the project, on the status of the intercommunity organisation, planning, achievements, and division of responsibilities.</p> <p>3.5 Income from sales of products and services by customers reached by the campaign, increases monthly for the duration of the project.</p>	<p>3.4 Monthly updates about entrepreneurship were received while the coordinator was in charge and appointed by the project (June 2022 to March 2023), however she had difficulties to collect complete information and the quality of reports was deficient. After that, the directive board reported occasionally and informally for Rincón de la Vieja; their records were not systematic and there was not much proactivity on production and sales. Our researchers opted for a monthly request of information to each entrepreneur. For overall advances of the Association Amigos de Felinos, only one official report from the board was submitted to Fundacion UCR in July 2023 and a final report was received as an unofficial draft (available upon request). From Las Brisas, Gente y Fauna tracked monthly reports from the entrepreneurship team and the local coordinators assisted each person in having better accounts every month (Annex 11). Piedades Sur and Las Armenias began reporting in December 2023, and their local coordinators are slowly guiding participants on data collection for 2024.</p> <p>3.5 Income was generated opportunistically, instead of incrementally as expected, this component was our weakest in the timeline of implementation and in the conclusion of the project. The expectation of local coordinators in proactively advancing marketing and commerce was not much accomplished either (see Section 3). Income generated by sales was in total 1 902 050 CRC \approx 2 986 GBP (exchange rate was unstable, 1GBP=637CRC): for 2022 in Rincón de la Vieja it was 800 000 CRC (100 000 for individual sales, 350 000 in fairs and 350 000 in wholesales; for 2023 in Rincón also the total annual income was 431 817 CRC (reported sales spikes in July for the awarding ceremony and November. For Las Brisas, the total income between March and December 2023 was 442 390 CRC (one sales spike in November), and after the end of the project locals reported income for January and February 2024 for 227 860 CRC (Annex 11).</p> <p>Besides the mentioned difficulties for self-reporting of income, we could not manage to obtain data from participating local services for our final report; those are varied businesses that contribute to the association and need accounting to estimate their role as both beneficiaries and collaborators. Also not reported, but relevant to mention, there were a few other income generating activities by the directive board in the form of raffles and the sale of tamales.</p> <p>3.6 Opportunities with new alliances have presented thanks to the campaign of the contest and also organically due to the attractiveness of</p>
--	---	---

	<p>3.6 Number of partnerships and alliances built through the campaign increases during the project. Data disaggregated for local, national and regional partners. Baseline not available.</p>	<p>the Association. We list 17 local opportunities for collaboration, 15 national, and 3 regional (Annex 11); 26 opportunities and invitations total between October 2022 and February 2024.</p> <p>Local alliances include, for example, education and tourism groups, the Upala municipality in promotion of AMFE Rincón de la Vieja, and Association Mar a Mar promoting participation of AMFE Las Brisas at their Conference on Biodiversity and Environmental Education. National alliances include environmental government authorities, universities, and tourism agencies; and one regional partner is the University of Chiriquí in Panama who established a strong link and exchanged visits through the project period, including hosting an AMFE representation. Besides those, Yo Emprendedor and SPECIES actively searched allies for commercialization, although not reaching final negotiations during the project period (Annex 15 and 16). Additionally, the Association submitted 2 grant proposals during the project period: Mohamed bin Zayed Fund awarded, and Binnacle Fund rejected. Additional support was received by WWF Central America (on 2 occasions during this project period). Our research team also supported the application to funds from the I Debt-for-Nature Swap of a project of Costa Rica Wildlife Foundation in benefit of AMFE asking for a goal of improvement of the administrative capacity building and wildlife monitoring for the period 2024-2025 that was awarded, and already started activities. Documents about those collaborations available upon request.</p>
--	--	--

<p>Activity 3.1 Recruitment and induction of a local entrepreneurs' team during capacity building module 1, that uses Amigos de Felinos as added value.</p>	<p>COMPLETED. See Activity 2.1 above and Annex 12.</p>
<p>Activity 3.2 Application of the eco-label to selected existing or potential products and services under learning-by-doing capacity building module 3 (development of identity, skill improvements, and reporting).</p>	<p>PARTIALLY COMPLETED. Capacity building for application of the label was completed. The actual use of the label is in progress for the latest winners of the contest due to the extra effort needed for communities to organise their teams of entrepreneurs, select the products compatible with the scheme and adapt the rules used by the pilot communities to other contexts. Investment of the funds earned from the contest was completed at Las Brisas, and is in progress at Las Armenias and Piedades Sur. For the pilot communities, we provided further training through the Yo Emprendedor consultancies (Annex 15), and oversaw maintenance of local production until the end of the project, and the affiliation of new AMFE services.</p>
<p>Activity 3.3 Showcase of advances in labelled products and services as part of the campaign for the contest, with marketing components of visual identity, storytelling, real-time updates.</p>	<p>COMPLETED. The website and the catalogue of products was elaborated at the end of the project after some administrative and logistic delays (still we are solving some online security issues). Extra products were produced for the entrepreneurs of Rincón de la Vieja and Las Brisas including personalised branding identity (Annex 15 and 17). Showcase of products and services through social media included posts during inspection visits at participant communities of both contest iterations, implementation at winner communities, participation in fairs and events, and continues after project closure (Examples: Rincón de la Vieja, Las Brisas, Las Armenias, and Piedades Sur). Also, see related Activity 3.5 below.</p>
<p>Activity 3.4 Coordination of administrative tasks by winning community representatives meeting pre-existent Amigos de Felinos for capacity building related to commercialization and sustainability.</p>	<p>PARTIALLY COMPLETED. Representatives from Rincón de la Vieja visited Las Brisas at least five times and held 1 virtual intercommunity meeting to close the year 2022. Winner communities for the second contest, Las Armenias and Piedades Sur were visited by AMFE at least 3 times during the scheme implementation and 2023 closing activities. Reciprocally, representatives from winning communities visited the Rincón de la Vieja site on one occasion for the 2023 Annual Assembly, facilitated by the project. The General Assembly included the election of new board members for the period 2023-2025, with active participation of new members from Las Brisas, and observants from Las Armenias and Piedades Sur (not officially affiliated at the time).</p>

<p>Activity 3.5 Marketing for customer acquisition and alliances at local and national scale as part of the campaign aimed at generating financial benefits for the eco-label scheme.</p>	<p>PARTIALLY COMPLETED. This activity was postponed during 2022, when marketing efforts were reduced to local retail by participants. During 2023, consultancies by Soul Communications and Yo Emprendedor intensified efforts with complete deliverables such as the webpage update, new labels designs, display stands (see Annex 13), and the products catalogue. The dissemination of these marketing products for customer and alliance acquisition is now in the hands of the locals.</p>
<p>Activity 3.6 Exploration and test of regional and potential global markets with development of partners and approach to e-commerce, also supporting a convenient and sustainable supply chain.</p>	<p>PARTIALLY COMPLETED. Locally, the Yo Emprendedor consultancy performed a mapping of potential local points of sale in Las Brisas and Rincón de la Vieja (Annex 15). Still in process are invitations to those potential vendors. According to the response, and outside of this project period, a test of sales will proceed.</p> <p>Internationally, S.P.E.C.I.E.S. explored prospective partners through conversations with the American Association of Zoos and Aquariums (AZA), the Zoological Association of America (ZAA), and several independent retail vending corporations. They secured letters of Interest from three potential international partners and points of sales. Other advances include research on import/export logistics, permits and fees to inform operations in the short and mid-term (Annex 16).</p> <p>SPECIES was not able to perform the test of international sales due to several bureaucratic hurdles and logistical challenges (Annex 16). However, they are committed to showcase and test the sale of products at 2 or 3 retail partners during 2024, allocating funds on their part for product acquisition, shipping, and display materials.</p>
<p>Output 4. Monitoring and Evaluation: Evidence supports the thesis that the eco-label reached the desired communities, and generated sustainable benefits that resulted in community-based wildlife management, with the contest as a marketing tool for scalability.</p>	<p>Evidence provided in Annexes 6, 8, and 9, in combination with the other output indicators.</p> <p>The Contest was a valuable strategy for scalability; first, to showcase nationally and internationally a scheme of community-wildlife management (adding value to the green-label); second, to involve citizens in an assessment of local wildlife governance; third to set the foundations of the national network under the Association Amigos de Felinos; and, forth, the process allowed feedback and documentation (reported as preliminary analysis here), that will be deepened for dissemination of lessons learned.</p> <p>4.1 The scoring rubric was designed to target communities where the governance of wildlife would be impacted for the better. An impact was</p>

	<p>4.1 Scores of winner communities reflect targeted impact (impact indicators for the assessment).</p> <p>4.2 Scores for Perception of benefits increase in participants from application to the end of the project.</p> <p>4.3 Wildlife presence and relative abundance (with emphasis in</p>	<p>hypothetized on the self-assessment (indicator 0.1), while we had no baseline. As an indicator of proper targeting, the inspection of score positions shows a top of 87.1 and a bottom of 43.1 in the rubric of 100 points for local wildlife governance (Annex 6). This range is informative and comparable for other studies and contexts using similar and improved rubrics. Targeted communities were either “in need of assistance to coexist with felids” (category 1), meaning high threats and low capacity to implement good practices; or were “exemplary communities making efforts to coexist with felids” (category 2), meaning they started work towards implementation of good practices. For category 1, the mean was 61,4 (range 43,1-78,7) and for category 2 the mean was 67,7 (range 43,8-87,1). The points were differently assigned for the categories of variables that would otherwise represent inequities (need vs exemplarity).</p> <p>Case studies after this report would better interpret the scores. For the winners, Las Brisas scored mid-range on coexistence practices and threats to wildlife but had high scores on potential for entrepreneurship, for governance and importance for felid conservation; Caño Negro got the highest score on practices and, sadly, on threats. For 2023, Las Armenias had the highest score on threats to wildlife, and Piedades Sur had the lowest, as expected for category 2. Of course, our scoring had specific characteristics in what it measured, and reliability, with the jury panel as a control of bias (that added other biases probably). See indicator 0.1 and Annex 6.</p> <p>4.2 Preliminary statistical analysis shows no change in benefit perception in either community (See Annex 8 and indicator 0.3 above). The short time between measures at winning communities, the mode of implementation of the survey, and sampling biases (i.e. in education level, environmental values), probably affected the results. At pilot communities (with more time between measures) wildlife acceptability did increase, and previous measures (2018-2021) had shown increased perception of benefits (unpublished). In person surveys and truly randomised samples that we were not able to implement in this project due to logistics, have proven better results. Still, we prefer not to express conclusions about this indicator for this report until later in-deep analysis and modelling.</p> <p>4.3 We completed 18 months of data collection at Rincón de la Vieja, 9 months at Las Brisas (with 3 months of baseline), and 3 months baseline at both Las Armenias and Piedades Sur (Annex 9). However, data processing is slow and status varies at each site. For this report, this</p>
--	---	---

	<p>jaguars, pumas) around the communities is maintained during this project term. Baseline to be determined in the three first months of surveillance.</p> <p>4.4 Ratio of wildlife pro-coexistence behaviour to threats to human-felid coexistence identified at each community increase monthly during implementation of the project.</p>	<p>indicator for presence and relative abundance was not possible to analyse (as stated in previous communications) due to the volume of data (>380Gb). Preliminarily, at least 31 species of medium and large mammals and birds have been detected by the local monitoring teams. Regarding detection of wild felids, Piedades Sur already have detected 4 species, including puma but not jaguar; Rincón de la Vieja and Las Armenias have detected 3 felid species (ocelot, puma and jaguar); and Las Brisas have detected 3 felid species as well, but all small wildcats, no photo-captures of jaguar nor puma yet. Other ecological data is also included in Annex 9.</p> <p>4.4 The ratio of wildlife pro-coexistence behaviour to threats to wildlife (expecting the more good practices, the least threats) could not be estimated because of methodological mistakes. The measure per se was feasible, and our team was ambitious; each time we reviewed the logframe we were optimistic about finding a way to collect the data from what we already had. During the contest we identified pro-coexistence behaviours and threats from the application form and rapid field inspections, but we failed to quantify them, and asked the juries for a score in the rubric instead of absolute values. To work properly, this indicator needed data collection from participant observation in the field, accounting for the complexity of quantifying practices and threats that are very diverse among themselves (and some more easy to observe than others). Sampling effort for that would have been out of reach of this project, in area and the time investment.</p> <p>Human-wildlife interactions were tracked as communities began the monitoring, and there is usually a bias towards reporting negative interactions (threats) and not so much the positive ones. Therefore some information on threats is on record. If good practices were facilitated by the project or allies, those were recorded as well (Annex 9). That information is not enough for a monthly radio estimation. A better monitoring system was not set, this is a research gap. Local monitoring teams of AMFE could begin that process in collaboration with UACFel and the Ministry of Agriculture, as is relevant for indicators in the National Biodiversity Strategy.</p>
--	---	---

<p>Activity 4.1 Statistical analyses for monitoring of change in wildlife governance (including pro-coexistence behaviours) in relation with participation in the contest (from application and reapplication forms).</p>	<p>PARTIALLY COMPLETED. Quantitative analyses performed for the first contest, see Annex 6 and indicator 0.1. For the second contest the format changed, the reapplication form was eliminated. Thus, baseline exists and was collected (Annex 6), but no post-contest data is available. Future post-measures could be possible beyond the scope of this project.</p>
<p>Activity 4.2. Survey with structured questionnaire on Wildlife Acceptance Capacity (WAC) model to a sample of community members to assess relative change of individuals (pre- and post-test).</p>	<p>COMPLETED. Pre and post-test data collection, processing and preliminary statistical analyses are completed for both contests. In-deep statistical analyses and modelling are in progress. See Annex 8 and indicator 0.3 above.</p>
<p>Activity 4.3 Evaluation of learning-by-doing processes (media platforms tests) for each module at participant communities, disaggregated by gender and inclusion criteria.</p>	<p>COMPLETED. See Annex 10, indicator 2.4 and activity 2.1</p>
<p>Activity 4.4 Analysis of changes from wildlife photo-trapping (descriptive and statistical): list of species, curves of accumulation, relative abundance, interspecific interactions, and other ecologically relevant data.</p>	<p>PARTIALLY COMPLETED. A preliminary list of species is available for all sites, other ecological data is being processed by the end of the project (Annex 9 and indicator 4.3 above).</p>
<p>Activity 4.5 Performance analysis (using Mixed Methods) of the Amigos de Felinos scheme for winners to assist the fieldwork team if corrective actions are needed.</p>	<p>PARTIALLY COMPLETED. Preliminarily, we applied empirical real-time assessment of performance allowing our team to implement changes based on experience and identified needs along the way. ' Not in real-time, we expect to systematise the methods for adapting activities and share the learning with deeper reports. Therefore, and prioritising other activities, the analyses were postponed and will be carried out outside the period of this project. We recorded all occurrences as unstructured observations to complement other data collected and later triangulate them.</p>

Annex 3 Standard Indicators

Table 1 Project Standard Indicators

Indicator number	Darwin Initiative Standard Indicator	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-A01	Number of people from key national and local stakeholders completing structured and relevant training	At least 15 people per winner community are recruited and complete the capacity building modules on the Amigos de Felinos scheme related to local wildlife monitoring and use of the ecolabel as added value. (Adults only)	People	Women, Men Same people receiving 2 types of training	0	44 (20 women, 24 men)	55 (32 women, 24 men)	99 (52 women, 48 men)	74 (39 women, 35 men)
DI-A03	Number of local/national organisations with improved capability and capacity as a result of the project.	Project feedback will promote improvement on capacity at AMFE pilot communities and at applicant communities to the Contest	Number of organisations	Local community organization	1	15	5	21	24
DI-A04	Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training. *Risk of double counting with DI-A01	At least 5 people per town affiliated to the network will report applying new capabilities 6 months after training. At least 5 interns and assistants report use of new skills 6 months after training.	People	Women, Men Women, Men	0 0	14 (10 women, 4 men) 7 (4 women, 3 men)	42 (22 women, 20 men) 4 (3 women, 1 men)	56 (32 women, 24 men) 11 (7 women, 4 men)	30 (20 women, 10 men) 9 (3 men, 6 women)
DI-B03	Number of new/improved community management plans available and endorsed.	Association statutes, procedures and implementation scheme is available to network communities and endorsed by representatives from the Ministry of Environment. Baseline: No management plan	Number	In Spanish, focussed on human-wildlife coexistence	0	0	1	1	1
DI-B05	Number of people with increased participation in local communities / local	Amigos de Felinos promotes an increased participation in community and wildlife	People	Women, Men	0	41 (30 women, 14 men)	32 (19 women, 13 men)	73 (49 women, 27 men)	71 (45 women, 29 men)

Indicator number	Darwin Initiative Standard Indicator	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	management organisations (i.e., participation in Governance/citizen engagement). *Risk of double counting with DI-A01 and DI-A04	governance among all of its members at pilot and winning communities							
DI-C12	Social Media presence	Amigos de Felinos Facebook and Instagram accounts increased followers and reach through the project period	Number	Followers/year Facebook (FB), Instagram (IG) Reach/year Facebook (FB), Instagram (IG)	2 004 (1046 on Fb, 958 on IG)	2 851 (1611 on FB, 1240 on IG)	3700 (2400 on FB, 1300 on IG)	3700 (2400 on FB, 1300 on IG)	3 400 (1950 on FB, 1450 on IG) 1 050 000 (900000 on FB, 150000 on IG)
DI-C15	Number of Media related activities	Media coverage will increase Contest exposure	Number	National digital	0	11	2	13	13
DI-C19	Number of other publications produced.	Communication campaign products will promote and clarify participation	Number	Publicity videos Guidelines	0 1	1 1	1 0	2 2	2 2
DI-D04	Stabilised/ improved species population (relative abundance/ distribution) within the project area.	Wildlife occurrence/presence and relative abundance (with emphasis in jaguars, pumas) around the communities is maintained during this project term. Baseline to be determined in the three first months of surveillance.	% Increase	Pilot communities Las Brisas (winner 1st iteration) Las Armenias (winner 2nd iteration)	Collecting baseline N/A N/A	Presence of jaguar and puma Collecting baseline N/A	Population maintained Jaguar or puma not yet detected Collecting baseline: presence of jaguars and pumas	Population maintained Jaguar or puma not yet detected Collecting baseline: presence of jaguars and pumas	Population maintained Population maintained Collecting baseline

Indicator number	Darwin Initiative Standard Indicator	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
				Piedades Sur (winner 2nd iteration)	N/A	N/A	Collecting baseline: presence of pumas	Collecting baseline: presence of pumas Pending statistical analyses	Collecting baseline
DI-D15	Net change in incidences of human wildlife conflict.	Number of spatial and temporal negative human-wildlife interactions reported by AMFE communities. Only cases with evidence provided are included	Number	Poaching, predation on domestic animals	0	22 (4 poaching, 18 predation)	10 (3 poaching, 9 predation)	N/A	N/A N/A
DI-D16	Number of people reporting improved livelihoods.	Scores for Perception of benefits increase in participants from application to the end of the project.	Mean score	Pilot communities Winner communities	Mean score pre-test: 9.56 *Mean score pre-test: 16.37 *Does not correspond yearly	Mean score post-test: 12.90 *Mean score post-test: 16.96 *Does not correspond yearly	No difference (Z -0.118, p=0.91, N=73) No difference (Z -1.132, p=0.26, N=83)	No difference (Z -0.118, p=0.91, N=73) No difference (Z -1.132, p=0.26, N=83) Pending in-deep statistical tests	Increase (statistical significance) Increase (statistical significance)

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)
Guidelines 2022	Terms and conditions	Concurso Amigos de Felinos. 2022	Female	Costa Rica	CIBET-UCR, San José	http://amigosdefelinos.com/concurso/assets/doc/Lineamientos_CAF.pdf
Amigos de Felinos Learning Guide, 2nd ed*	Manual	Amit, R., F.Chirino y N. Valverde-Zúñiga. 2023	Female	Costa Rica	CIBET-UCR, San José	https://www.kerwa.ucr.ac.cr/handle/10669/87824
Roaring communities*	Promotional video	Soul Communication and Amigos de Felinos. 2022	N/A	Costa Rica	Youtube.com	https://youtu.be/g66aRZtHyvA
What's on the horizon for community-based conservation? Emerging threats and opportunities.	Scientific paper	Esmail, N., McPherson, J. M., Abulu, L., Amend, T., Amit, R., Bhatia, S., ... & Wintle, B. (2023).	Female	Kenya	Trends in Ecology & Evolution. Elsevier	https://www.cell.com/trends/ecology-evolution/fulltext/S0169-5347(23)00037-X
2° Contest Amigos de Felinos	Promotional video	Soul Communication and Amigos de Felinos. 2023	N/A	Costa Rica	Youtube.com	https://youtu.be/yY2aBkBbTyo?si=sTwjJZ2R1PhsivQW

Annex 5 Supplementary material (optional but encouraged as evidence of project achievement)

All supplementary materials are named “annexes” as well. Some other materials and databases are available upon request to avoid an excess of attachments. Files will be sent via the platform WeTransfer to BCF-Reports@niras.com and EIYO@niras.com

Annex 6. Governance scoring and interactions

Annex 7. Coding summary

Annex 8. Acceptability preliminary results

Annex 9. Community-based wildlife monitoring

Annex 10. Grades for capacity building

Annex 11. Entrepreneurship Friends of Felids

Annex 12. Learning guide_2nd edition

Annex 13. Campaign in graphic design products

Annex 14. Communication and media technical report

Annex 15. Entrepreneurship marketing advances (links that fail are available upon request).

Annex 16. International marketing to benefit AMFE

Annex 17. Catalogue of AMFE products

Annex 18. Photographs of project activities

1. Checklist for submission

	Check
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Y
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	N
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	N
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	N
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	N
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	