Illegal Wildlife Trade (IWT) Challenge Fund Main Final Report

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

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

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

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

IWT Challenge Fund Project Information

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Project title	Demand reduction behaviour change in illegal Venezuelan threatened bird markets
Country(ies)	Venezuela
Lead Organisation	PROVITA
Project Partner(s)	Instituto Venezolano de Investigaciones Científicas (IVIC), Red Siskin Initiative (RSI), IUCN National Committee of the Netherlands Foundation (IUCN NL), Smithsonian Institution (National Zoo & Conservation Biology Institute [NZP/SCBI]), Leslie Pantin Zoo, Gobernación del Estado Nueva Esparta.
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Start/end dates of project	1st September 2022 - 31th March 2024
Project Leader's name	*Ada* [redacted]
Project website/blog/social media	*@provita_ong; www.volandojuntos.org*
Report author(s) and date	*Ada* [redacted], *María Daniela* [redacted], *Lisandro* [redacted], *Alejandro* [redacted] *Génesis* [redacted] *Albert* [redacted] *Arlene* [redacted] 8 July 2024

1. Project summary

Effective behaviour change campaigns to reduce wildlife demand in South America are limited by heterogeneous design quality and language barriers that hinder the adoption of best practices. We aimed to increase the adoption of best practices for these campaigns and their taxonomic and geographic reach by: 1) implementing theory and evidence-based campaigns to reduce demand for two threatened bird species in Venezuela with contrasting illegal trade dynamics, and 2) generating tools and guides to design and monitor campaigns adapted to regional conditions and language. The Yellow-shouldered Amazon (YSA, *Amazona barbadensis*) and the Red Siskin (RS, *Spinus cucullatus*) are threatened species listed as "Critically Endangered" and "Endangered" respectively in Venezuela [1,2] (Supporting material > References list_IWTFR_IWT102_20240612) and included in Appendix I of CITES [3].

In 2017, 3 out of 10 people in Macanao, Margarita Island, kept YSA as pets. Misguided perceptions of human protection benefits and affectionate attitudes towards parrots drive this demand, reinforced by high knowledge of parrot biology and conservation concerns [4,5]. Women play a crucial role in the illegal YSA trade chain, often using parrots to manage emotions of loneliness when male family members are away on long fishing trips. Our behaviour change campaign, Cielo Verde (Green Sky),

encouraged Macanao communities to participate in outdoor activities as an alternative to the companionship and entertainment provided by pet parrots [6–8]. We promoted social norms and positive attitudes towards outdoor activities, creating spaces and opportunities for people to enjoy their favourite birds without captivity (Figure 1; all figures are in Supporting material > Figures_IWTFR_IWT102_20240629). This approach reduced intentions to demand parrots from 2.2 to 1.5 (Likert scale). Green Sky complemented and leveraged the Yellow-shouldered Amazon Conservation Program, implemented by Provita over the past 32 years, which includes environmental education and nest surveillance, working hand in hand with a local group of Ecoguardians.

On the other hand, at least 368 RS are traded per year (most of them suspected wild-caught [9]). This rate is expected to have a high negative impact on the remaining small populations present in Venezuela (< 6,000 individuals [9]). The key actors demanding RS are breeders, mostly middle-class professional males, who profess a deep interest in improving their breeding skills and are motivated by recognition among peers, more than profit [9] and believe that genetic variability needs wild-caught RS [Arlene-Cardozo pers. comm.]. This misguided belief is reinforced by the fact that RS's closed community of expert breeders lacks tools and channels to share knowledge with less experienced breeders, especially across language barriers, perpetuating unsustainable captive breeding practices [9]. Our behaviour change campaign, Nesting Future, focused on promoting sustainable breeding practices among RS breeders from Venezuela, Brazil, and the Iberian node (Spain-Portugal). We aimed to foster social norms and positive attitudes towards excluding wild RS capture [6–8], by creating spaces (workshops, forums, meetings) where breeders could acquire, discuss, and disseminate sustainable breeding practices among their peers. Although we couldn't have a control group, we saw a before-after decrease in intention to demand RS from 9 to 0%. Nesting Future was part of the holistic conservation approach led by Provita through the Red Siskin Initiative (RSI), which also aims to understand the species' threats, ecology, and genetics, and to rescue, breed, and reintroduce RS, create awareness, and ensure bird-friendly habitats. Nesting Future built on years of research by Provita and RSI to understand the structure of unsustainable harvesting, the involved parties, and their socio-economic motivations (Figure 2).

To encourage further IWT demand-reduction campaigns in South America, we used these two case studies to publish and disseminate 4 toolkits on how to design, implement and evaluate behaviour change campaigns in Spanish and English and adapted to our regional context. The toolkits are freely available on our website (www.volandojuntos.org), as well as on Figshare and ResearchGate; we have so far achieved 3,567 combined page visualisations and at least 501 downloads, while also several organisations have approached us to seek advice in designing their campaigns.

2. Project Partnerships

Partners involved in project implementation and evaluation: Project partners have been supporting campaign implementation as follow (Figure 3):

- Our partners at the Smithsonian Institution (National Zoo & Conservation Biology Institute) provided us with strong support, assisting us in identifying funding opportunities. Additionally, our Smithsonian partners introduced us to the Silent Forest Group. This collaboration led us to co-organize the Silent Forest side event at the CITES CoP19 in Panama in 2022. Lastly, Dr. Rodríguez-Clark from the SI-CBI reviewed the English translation of Tool 1.
- Our partners at IUCN – NL Liliana Jaúregui and Marc Hoogeslag helped us to identify networking opportunities across their contacts in South America.
- The Rural Finance Foundation (FUNDEFIR) supported us throughout the project, initially being involved in developing the questionnaire to measure basic behavioural indicators in the Green Sky campaign for the YSA. FUNDEFIR staff helped verify that the tone, language, and complexity of the questions were consistent with the reading comprehension level of the Macanao population. They also provided us with information that helped design the questionnaire protocol, which included seeking local information to calculate the sample size (number of households per town, identification of safe sampling areas, etc.), optimising implementation times according to local social dynamics. Additionally, they assisted us in expanding our working networks with community organisations, which were crucial during the campaign implementation.
- El Zoológico Leslie Pantin (LPZ) served as the venue for the face-to-face meeting of Venezuelan Red Siskin breeders held in July 2023 as part of the Nesting Future campaign. Federico Pantin, president of LPZ, is recognized and respected within the Venezuelan breeder's community, providing the necessary trust to boost participation.

Additional partners: Several institutions and individuals, both from the governmental and private sectors, who are not formally partners in the project, have also been involved throughout the project's development (Figure 4 and 5):

- Governmental bodies, including the Mayor of the Macanao Peninsula Council and the director of the Environmental Office of the same council, supported in identifying core activities for the Green Sky campaign, and during the implementation, provided logistical support for the organisation of the cine forum, facilitating the facilities at the Robledal Cultural Centre "Maestro Guillermo Hernández," as well as for the restoration activities carried out as part of the main initiatives of Green Sky. Additionally, they collaborated in disseminating invitations for the other organised activities.
- Members of the Red Siskin Specialists and Aviculturists Network (ReSSAN), hailing from Spain (Roberto Jurado Medrán), Portugal (Eugenio Pastor, Sereno Reginaldo, Mario Simoes), and Brazil (Hugo Santana), played a pivotal role since the beginning of the project. They provided support in developing the questionnaire to measure basic behavioural indicators and offered valuable context for our pre-Nesting Future campaign evaluation for the Venezuelan Red Siskin. Furthermore, they adapted our technical language to the jargon and tone used by breeders, assisted us with Portuguese translation, and advised on the sampling protocol, particularly in selecting control and treatment groups. They also supported us in creating the chain contact network of breeders within our target audience, through which we distributed the questionnaires. During the campaign implementation, we had the participation of Francisco Reyes, and Herminio Conca, as well as Hugo Santana from Portugal and Reginaldo Sereno from Brazil, who acted as speakers in the discussion forum held as part of the Nesting Future campaign and played a key role as messengers to promote the campaign's message. Herminio Conca also collaborated with the Red Siskin Conservation Centre in Venezuela to create a seed mix specifically for the centre's conservation efforts. A label was created for the packaging of this mixture promoting the Nesting Future campaign and highlighting the conservation work led by Provita.
- José Antonio Díaz Luque, Founder and CEO of Endangered Conservation Consultancy and member of the IUCN Conservation Planning Specialist Group, provided guidance on developing the campaign's Theory of Change and also supported us with the English translation review of tools 3 and 4.
- Marcelo Arancibia, owner of Merlin Interactive, kindly supported us as a communications consultant, defining the project and campaign's image (logo, slogan), as well as advising us on strategic communication approaches and tools.
- Liliana Medina-Toro, communication consultant for the IUCN's Commission on Education and Communication, and Joaquín de la Torre, regional director for Latin America and the Caribbean at the International Fund for Animal Welfare (IFAW), helped us identify opportunities to strengthen our regional collaboration network. As a result, part of our technical staff has become members of the South American node of the IUCN-CEC, expanding their membership to the South American node of IUCN-SSC and the IUCN CEC Behaviour Change Network. Furthermore, this led the IUCN CEC to include our experience as a case study in their upcoming publication *Creating Effective Environmental Communication Strategies*.
- Park rangers and technical staff from the National Parks Institute were speakers at the one-day workshop (September 2022) we organised to enhance capacities in birdwatching best practices and group guiding skills among Ecoguardians and campaign volunteers.
- Private tourism enterprises like Hacienda Macanao and MacanaoTrekking provided venues for bird watching activities during the Green Sky campaign and offered advice for group management during interpretive hiking activities, respectively. MacanaoTrekking also contributed during the design stage of the interpretive trail conducted in Macanao, which has been a core activity in the campaign.
- Nolan Villasmil, who served as an Official for Sustainable Development in the Political and Economic Section of the British Embassy in Caracas until 2023, visited Macanao in November 2022 to learn more about Provita's projects, especially the progress made in the Green Sky campaign.
- Patricia Raxter, Director of Intelligence and Analysis for Illegal Wildlife Trade at United for Wildlife helped us identify opportunities to strengthen our collaboration network. She also included our tools in the United for Wildlife newsletter of September 2023. Additionally, our work with the Venezuelan Red Siskin was published in the United for Wildlife newsletter of November 2023.
- Arianna Arteaga, a nationally recognized nature photographer and influencer currently residing on Margarita Island, joined us on a visit to the trail in October 2023, highlighting the role of

women in communities and encouraging them to continue participating in outdoor activities to connect with the YSA in its natural habitat, rather than keeping them as pets.
- Community organisations, especially the "Asomayor" seniors club in Robledal, the "Damas Otoñales" seniors club in Boca de Pozo, the public library "Dr. Luis Betrán Prieto Figueroa" in Boca de Pozo, the culture house "Maestro Guillermo Hernández" in Robledal, and the Catholic church, were crucial collaborations in increasing participation and disseminating the messages of the Green Sky campaign.
- The organisation Rare, specialised in behaviour change, highlighted our case study, Green Sky, during the workshop on Behaviour-Centred Design, aimed at the Solution Search award finalists, which took place in Santa Marta, Colombia, from November 21st to 24th, 2023.
- Vivek Menon, Founder Wildlife Trust of India, Councillor IUCN & Chair Asian Elephant Specialist Group, and author and nature photographer visit Macanao and did a photographic session providing us with high quality pictures of the Yellow-shouldered Amazon in their natural habitat that were key in our Green Sky campaign.

Lessons, strengths, or challenges with the partnership

(Supporting material > Learned Lessons[SPA]_20240423)

Challenges:

- Coordinating meetings with our project crew in Venezuela, the project leader in Australia, partners in the US and Europe, and our communications advisors in Chile required significant flexibility. Fortunately, our team and collaborators demonstrated this flexibility, for which we are grateful.
- We faced challenges due to weak relationships with some partners, as communication initially relied on a single individual, leading to superficial integration. For example, we couldn't schedule a meeting with the new board of the Venezuelan Institute of Scientific Research (IVIC). Similarly, after a government change in late 2021, our attempts to connect with the Government of the State of Nueva Esparta resulted in a referral to the Nueva Esparta State Tourism Corporation (CORPOTUR), limiting integration. We regret not cultivating stronger relationships, as greater integration would have benefited the collaboration. These experiences taught us the importance of diversifying and strengthening relationships with key partners, involving multiple contacts in each organisation to ensure more effective communication and collaboration in the future. However, as described above, we were able to develop valuable new partnerships that advanced similar and complementary roles and purposes.
- Expanding the involvement of the Red Siskin breeder community beyond initial ReSSAN contributors was challenging. Spanish and Portuguese breeders have busy schedules with competitions, exhibitions, and shows, limiting their availability for talks or testimonials to promote social norms. In Venezuela, conflicts with authorities increased apprehension among breeders, resulting in low social media engagement and requests to remove previously published testimonials for fear of exposure and potential bird seizures. To address these challenges, we collaborated with Enrique Azuaje, manager of the Red Siskin Conservation Centre and a respected figure among local breeders, to help build trust among Venezuelan breeders. We managed to have an in-person meeting with Venezuelan breeders to discuss the future path forward to solve this conflict.

Strengths:

- Provita's experience in managing external funding, supported by its strong administrative and project management structure, has allowed for effective fund management and compliance with IWTFC requirements, even when some of these requirements were new for the organisation.
- Provita, as a member organisation of the IUCN, has provided a platform to increase the visibility of the work carried out in the project. This offers us the opportunity to expand our reach and share our work with a broader audience.
- The articulation of internal projects within Provita allowed us to maximise the utilisation of existing knowledge, resources, and capacities. This involved optimising our relationships with other organisations, as well as with local communities. Additionally, collaborating with members from other projects provided us with a significant advantage in achieving our goals.
- In 2021, Provita and Fundación Temaikén from Argentina launched a collaborative network to tackle illegal cage bird trade. The ECHO - Illegal Cage Birds Trade project, funded by the American Bird Conservancy, uses the ECHO approach to create virtual communities for

professionals to share best practices. Provita and Fundación Temaikén organise and participate in workshops and discussion sessions, focusing on methodological approaches, implementation strategies, and lessons learned in Venezuela and Argentina.

- We enhanced local empowerment by engaging volunteers and stakeholders in designing and implementing Green Sky's activities. This approach has transformed participants into co-organizers who actively suggest venues for birdwatching (e.g., offering small-scale farming plots), identify new community-based organisations for collaboration (e.g., public libraries, seniors' clubs), and volunteer to provide additional refreshments and food (e.g., preparing stew). Our success stems from integrating with existing recreational initiatives rather than imposing new agendas. Activities have been integrated into seniors' clubs programs, school holiday plans, and regional government reforestation programs, allowing us to incorporate local perspectives, streamline logistics, and reduce costs and risks.
- Our local partnerships facilitated capacity building through training sessions. For instance, we collaborated with regional offices of the National Parks Institute (INPARQUES) in Macanao for a bird-watching guide training workshop. We also received valuable guidance from Trekking Macanao, a private tourism enterprise, during our tour guide training. Additionally, we conducted a workshop on didactic strategies for local school teachers, aiming to inspire them to replicate Green Sky activities with children using engaging tools like role-playing games, debates, and comic creation.
- We've established a stakeholder network closely following our tool publications. By the end of 2023, we started receiving advisory session requests from diverse institutions and organisations interested in adapting our tools. Notably, the Pine Paraná Jungle Project and the Biodiversity Park in Argentina have reached out.
- As part of promoting our campaign work, our technical team has been recognized and selected to participate in collaboration networks such as IUCN Behaviour Change Task Force and the United for Wildlife of The Royal Foundation. This opportunity has allowed us to showcase our project's achievements. We authored two reports for United for Wildlife's monthly bulletin. The first one came out in a Special Edition Latin America and the Caribbean, focused on promoting the first module of tools and titled "Provita: Behaviour Change Campaigns to Reduce Demand for Wildlife," published in the September 2023 newsletter (Supporting material > Outstanding achievements > Provita: Behaviour Change Campaigns to Reduce Demand for Wildlife_20230905). The second report, titled "Collectors/Breeders Driving Red Siskins Trafficking," was published in the November 2023 newsletter (Supporting material > Outstanding achievements > Collectors/Breeders Driving Red Siskins Trafficking_20231107).
- We participated in virtual meetings following the launch of United for Wildlife's Latin America and the Caribbean chapter, attended by partners from Peru, Ecuador, Brazil, Colombia, Mexico, the United Kingdom, and ourselves representing Venezuela. During the November 21, 2023 meeting, discussions included relevant regional case studies, such as illegal trafficking of the Red Siskins.

3. Project Achievements

3.1 Outputs

Output 1

1.1 100% of planned core and recreational activities implemented and monitored by 2022 and 2023 (baseline = 0).

For the Green Sky campaign, we fulfilled this goal. Green Sky's activities were implemented as planned, encompassing a total of 24 core activities (Figure 6). Activities spanned 20 months of campaign implementation (Supporting material > Core activities > Core activities_Green Sky[SPA]). The launch, conversion, engagement, and change phases were completed within 18 weeks, starting in June and July 2022 (Figure 6). From July 2022 to September 2023, we implemented 1-2 activities per month. We extended activities till March 2024 to capitalise on participant enthusiasm and solidify the change phase, following reviewer suggestions. During this extended period, in addition to core activities, we conducted a two-day workshop for primary school teachers, enhancing their capacity for engaging strategies and organisational skills to sustain Green Sky initiatives. We also launched the Green Sky Heroes recognition program to publicly acknowledge individuals demonstrating commitment to adopting alternative behaviours (Supporting material > SatisfactionSurveys_GreenSkyCampaign[SPA]_20240423).

We also fulfilled this goal for the Nesting Future campaign. The launch spanned from June to July 2022 (Figure 7), followed by four online forums supplemented by communication activities on Nesting Future's social media platforms (Facebook and Instagram) (Figure 7). Besides the forum sessions, in July 2023, we hosted an in-person meeting with four Venezuelan breeder associations, and in November 2023, we participated as keynote speakers at a songbird and ornamental bird breeders' meeting hosted by the Spanish-Venezuelan Centre in Maracay, Venezuela. Our presentation covered the Nesting Future campaign's scope, strengths, weaknesses, and addressed legislative challenges in Venezuela's sport aviculture hindering access to sustainable sources of red siskins (i.e., captive-bred birds). Attendees shared insights on overcoming these obstacles.

1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0).

We have effectively met this indicator in all activities of Green Sky and Nesting Future. For the Green Sky campaign, we recorded attendance for all 24 core activities. Participation grew from 28 women in June 2022 to 905 participants by March 2024. Gender distribution was 75% women (mean age 47) and 25% men (mean age 32). Adults (mean age 42) made up 52% of participants, young adults (mean age 21) 18%, elderly adults (mean age 68) 17%, and children (mean age 12) 13%. Most participants were from Boca de Pozo (61%) and Robledal (58%), the treatment localities, with few from the control communities Boca de Río (4%) and San Francisco (4%), and other areas (3%), indicating low spillover (Figure 8) (Supporting material > Participants_GreenSkyCampaign[ENG]_20240322).

For the Nesting Future campaign, core activities were online. By December 2023, we had 3,021 views of the recorded forum sessions on YouTube. The majority were men (81%), with 41% aged 18-25, 36% aged 26-59, and 23% over 60. Most views came from Spain (47%), followed by Venezuela (25%) and Brazil (10%). Despite efforts to engage Portuguese breeders through WhatsApp, Portugal had only 6% of views. Mexico and Iraq accounted for 12%, suggesting connections with breeders in those countries (Figure 9) (Supporting material > Participants_Nesting Future[SPA]_20231027).

1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%).

We fulfilled this indicator for the Green Sky campaign. We conducted satisfaction surveys for 58% of participants. Ninety-six percent of respondents expressed interest in future activities, 98% would recommend them, 99% had a positive overall perception, and 98% were satisfied with the activities. Additionally, 96% felt the activities were well-organised. Empowerment and leadership surveys conducted after nine months (from April 2023) showed that over 80% felt more empowered to make informed decisions about reducing unsustainable parrot demand. However, only 7% reported volunteering to support logistics or planning, indicating a need to enhance community leadership for long-term impact. Qualitative assessments suggest that with proper support, Green Sky could be community-led (Figures 10 and 11).

For the Nesting Future campaign, we failed to get quantitative participation indicators. We only got 17 replies for the satisfaction questionnaires (Supporting material > SatisfactionSurveys_Nesting Future[SPA]_20231027). So, we used instead an alternative indicator by using comments and "likes" related to the Facebook posts containing forum videos (our main core activity). Fifty-nine of the 144 posts published on the Nesting Future Facebook page (41%) were related to the promotion or dissemination of the content of the forum sessions (videos, invitations, thank you messages). These forum-related posts received 39% of the total likes received (1,341 likes / 3,404 total likes), 76% of the comments (37 comments / 48 total comments received), and 41% of the shares (297 shares / 733 total shares). Overall, these indicators suggest that audiences found the forum content interesting (Supporting material > SocialMedia_NestingFuture_Statistics[SPA]_20231215) (Figure 12). We also used as qualitative indicators social media testimonials, which suggested that people in our audience were interested (Figure 13). Empowerment indicators after implementing Nesting Future were worryingly low, indicating we failed to improve breeders' informed decision-making about responsible bird sourcing, increase peer collaboration, and most importantly, boost breeders' commitment to avoid wild-caught red siskins (Figure 14). Similarly, the low post-campaign leadership level suggests the campaign's message is unlikely to persist within the breeders' community without active efforts from Provita, as breeders were less inclined to encourage sustainable and responsible practices among their peers.

1.4 The number of surveys to measure intermediary behavioural indicators reach 80 - 100% of the sampling size established by the power analysis in each focal audience in 2022 and 2023.

For the Green Sky campaign, pre campaign surveys reached 472 answers, which surpassed our sampling size established as goal (362 answers). Pots campaign surveys exceeded our sampling target with 561 responses (154% of the target 362), distributed across treatment localities (Boca de Pozo 154, Robledal 137) and control (Boca de Río 132, San Francisco 124, Others 9) (Supporting material > Behaviour Indicators_PostCampaign_GreenSkyCampaign[SP]_20231128).

For the Nesting Future campaign, pre campaign surveys assessing behavioural indicators and self-reported keeping behaviour reached 45% of the sampling size established as goal (216 answers out of the targeted 480). Post campaign surveys reached only 38% of our target (184 out of 480 responses). Despite extending the survey period from November 2023 to January 2024 and using direct contacts, social media, and emails to stakeholders, response rates remained low. This may be due to: (1) the survey coinciding with the international competition season, (2) increasing legal conflicts around Red Siskin breeding, and (3) Venezuelan legislation not accommodating small bird breeding, leading breeders to avoid participation to prevent legal repercussions (Supporting material > Behaviour Indicators_PostCampaign_NestingFutureCampaign[ESP]_20240112).

1.5 Surveys assessing the number of YSA kept as pets (self-reported behaviour) reach 80 - 100% of the sampling size established by the power analysis in each focal audience.

Number of surveys has the same status as reported in the indicator 1.4. Questions evaluating this indicator were included in the surveys measuring intermediary behavioural indicators.

1.6 Surveys assessing the number of wild-caught red siskins in captivity in domestic and international facilities (self-reported behaviour), reach 80 - 100% of the sampling size established by the power analysis in each focal audience.

Number of surveys has the same status as reported in the indicator 1.4. Questions evaluating this indicator were included in the surveys measuring intermediary behavioural indicators.

1.7 Percentage of decrease in the number of YSA's nest poaching events in the middle of the parrot's breeding season (Q1) in 2022 and 2023.

We conducted two surveys at unsupervised nesting sites in Macanao: the Chacaracual Community Conservation Area (CCCA) and La Vieja. The first survey ran from May 2 to July 20, 2022, and the second from May 12 to June 4, 2023, coinciding with the middle of the Yellow-shouldered Amazon's reproductive season. A nest was deemed poached if we found evidence of human activity (e.g., bicycle tracks, footsteps, marks, broken nest base) (detailed survey protocol at Supporting material > Measuring changes in YSA nest poaching > Nest poaching monitoring protocol_SPA_20230301). In the first survey, we inspected 48 trees (35 in La Vieja and 13 in CCCA). Fifteen percent (7 trees) were active nests, with one showing poaching evidence. Poaching prevalence was 14% (Figure 15a). In the second survey, we inspected 72 trees (41 in La Vieja and 32 in CCCA). Eleven percent (8 trees) were active nests. Poaching prevalence increased to 50%, with 4 of the 8 active nests showing evidence of poaching, a 36% increase from the previous season (Figure 15b). However, we acknowledge that the sample size is small, both in terms of years and nests, so this result does not necessarily represent a trend.

1.8 Percentage in the number of events of offers, demand, possession, and exchange of RS recorded at the beginning (Q4 2022), and the end (Q2 2023) of the campaign.

We monitored Facebook groups in two periods: February 2 to May 30, 2022, and May 1 to September 19, 2023. We identified 108 Facebook groups. In the first period, we detected 215 records, mostly from the Iberian Peninsula (Spain and Portugal; 79%) and Brazil (20%), with less than 1% from Venezuela (Figure 16a). Only 3% involved potential wild-caught red siskins. The majority were captive-bred hybrids or mutations (64% non-ancestral phenotype), with posts about keeping (37%), offering (24%), demanding (24%), or exchanging (2%) birds. Eleven percent were contextual mentions of the species (Figure 16b). In the second period, we detected 667 records. Brazil and the Iberian Peninsula again dominated the online trade. Publications of wild-caught Red Siskins dropped to 0.8%, a 2% decrease from 2022. Trade of captive-bred birds increased to 99%, with almost equal proportions of ancestral (49%) and non-ancestral phenotypes (51%). Demand-offer activity increased in 2023 compared to 2022 (Figure 16c) (Supporting material > Extraction rates Red Siskin > ExtractionMonitoring_RedSiskinTrade_Facebook[SPA]_20230713).

Output 2

2.1 The total number of views and downloads of the toolkits should reach 300 and 180, respectively, by December 2023.

The Spanish and English versions of toolkits 1, 2, 3 and 4 are available through various platforms including, our website (www.volandojuntos.org), Figshare, and ResearchGate. Volando Juntos website traffic reached 2,724 visits, 25% of which with direct access to the tools page. Most of the website traffic comes from Venezuela (48%), followed by the United States (39%). For figshare and ResearchGate we have more detailed records of views and downloads by tool (Table 1) which range from 43 (toolkit 4) to 356 (toolkit 1) visualisations, and 29 (toolkit 4) to 211 (toolkit 1) downloads. The toolkit 4 has the highest monthly viewing (43 views/month) and downloading rate (29 downloads/month) (Table 1).

2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0).

None of our original partners have web links or have promoted our tools through press releases or newsletters, partly because they are large organisations (e.g., Smithsonian Institution) with broad focuses and multiple projects. However, we have effectively shared and promoted our toolkits through an expanded network of implementation partners, receiving positive and enthusiastic feedback (Figure 17).

The first three toolkits were uploaded onto People not Poaching and Nature for All from the IUCN Commission on Education and Communication (CEC). A Spanish press release for the official launch of the first three tools was posted on the IUCN-CEC website. We shared the tools with 158 professionals and institutions, resulting in a cascade of press notes and newsletters, including the September 2023 United For Wildlife bulletin (Supporting material > Contact list toolkit diffusion[ENG]_20240424), and a press note in the Conciencia y Confluencia project.

2.3. Citation-based metrics of the toolkits reflect up to 2 citations by March 2024 (baseline 2022 = 0).

Currently, there are no citations recorded for any of the tools. However, we are aware that they will be cited in the upcoming IUCN CEC publication *Creating Effective Environmental Communication Strategies*. Also, the two manuscripts submitted to Conservation Science and Practice, currently under revision, cite the first three toolkits (Supporting material > Scientific publications).

3.2 Outcome

O1. Intentions to acquire wild-caught birds in focal audiences measured through interviews, will remain with similarly low values (1 - 2 points in Liker scale) by 2023 as was in 2022 (baseline = 2.15 - 1.35 in YSA; 1.12 - 1.59 in RS)

For the Green Sky campaign, the Difference-in-Difference analysis (Supporting material > Analysis of outcomes) revealed that the average intentions to keep parrots in both control and treatment groups were similarly low before the campaign (2.1 – 2.3 in Likert scale with 1 representing "Strongly disagree" and 5 "Strongly agree"; Figure 18). After the campaign, there was a significant effect, with individuals who participated in the campaign showing significantly lower intentions to keep parrots as pets (1.4 in Likert scale) compared to those who did not participate (2.2 in Likert scale) (Figure 18). Without the Green Sky campaign, the intentions to keep parrots would have remained at values like those before the campaign (contractual in Figure 18). Expressed in percentage these results translated in demand intention in the control group was 28%, while in the treatment group was 15% which represents a reduction of 13%.

For the Nesting Future campaign, we were unable to properly define pre-campaign control and treatment groups. Therefore, we could only conduct a before-and-after comparison of demand intentions. Demand intentions decreased from 9% to 0% after the campaign implementation (Figure 19). However, since we did not establish control-treatment groups, it is not possible to attribute this reduction in demand intention directly to the campaign. While the low prevalence of demand intentions for wild-caught red siskins is encouraging, we are aware that the sensitive nature of the question and the secretive community we are working with could lead to social desirability bias influencing the results.

O.2 Intermediary behaviours measures (knowledge, attitudes, perceived social norms, moral norms, and control) in focal audiences measured through interviews, will increase by 10% in 2023 in relation to the baseline level measured in Q4 - 2022

For Green Sky there was a significant and positive effect post-treatment, with individuals participating in the campaign having significantly higher adoption intentions (4.3) compared to those who did not participate (3.9). In the absence of the Green Sky campaign (contrafactual), the adoption

intentions would have remained at values like those before the campaign (3.8) (Figure 20). The observed change in adoption intentions was influenced by an increase in the resonance of social norms promoting adoption. Conversely, moral norms exhibited a negative association with adoption intentions (Figure 21). We used several strategies to heighten awareness and acceptance of the behaviour within the community, including (Figure 22):

- *We provided different ways for people to show that they are carrying out alternative behaviour:* In each activity, we created time and space (e.g., frame, lollipops, parrot wings) for participants to take pictures and post them on social media.
- *We shared that there are currently people who are carrying out the alternative behaviour:* We created the Green Sky Challenge, which consisted of specific tasks (e.g., embracing a tree, spending 30 minutes outside, inviting a friend for a walk in the park, etc.) that participants should complete over three weeks and send pictures to the Green Sky social media. The participant who completed the most tasks won an appreciation token and was publicly recognized.
- *We publicly disclosed who has participated in the alternative behaviour:* We created the Green Sky Protagonists recognition and organised a special event to publicly recognize the leadership and empowerment shown by several members of the community in organising activities for the campaign.
- *We used credible and trusted messengers to carry out the alternative behaviour:* We used community leaders who were perceived as friendly and relatable, fostering a sense of community and shared stewardship. Additionally, we involved local comedians and artists who served as tastemakers to promote participation and create a fun atmosphere.
- *We promoted successful cases with alternative behaviour:* We used testimonials from community members to highlight their experiences and joy of watching parrots flying and their determination to not demand more parrots in the future.
- *We created a supportive environment*: We designed entertaining and family-friendly activities designed to appeal to a wide audience, including parents with young children and the elderly. These activities were crafted to be enjoyable, aiming to increase participation among young people and reduce perceptions of boredom often associated with conservation activities.
- *We promoted a sense of pride and respect toward people adopting the alternative behaviour:* We used the nomination for the People's Choice Award of Solution Search to increase a sense of pride among the community, as the nomination itself meant that the change they made was recognized, valued, and prized in international forums. This sense of pride drove the Macano's constant and consistent voting for Green Sky over several weeks, which is likely why our campaign was the most voted for, even though Provita was not the organisation with the biggest social media reach among the award nominees.

The counterintuitive finding that moral norms were negatively associated with adoption intentions suggests that individuals with high intentions to adopt felt less moral pressure as they were already aligned with the behaviour. Alternatively, it indicates that peer influence and social norms can have a stronger impact than personal moral considerations. Individuals may prioritise conforming to group behaviour over their own moral beliefs. This aligns with the strong family ties observed in these communities and suggests that future campaigns should target social norms more explicitly, given their significant impact on behaviour.

For the Nesting Future campaign, adoption intentions increased 10% after the campaign (Figure 23). However, without control-treatment groups, we can't directly attribute this change to the campaign. Before the campaign, no behaviour indicators significantly influenced adoption intentions. After the campaign, attitudes and perceived moral norms positively correlated with adoption intentions, while social norms and conformity negatively correlated (Figure 24). Our results suggest that while some breeders support responsible sourcing, tensions among breeders with different expertise levels hinder adoption rates. These challenges include: 1) Overcoming the uncollaborative attitude of expert breeders, who are historically reluctant to engage in conservation initiatives; 2) Addressing the perceived lack of capacities among young breeders, leading to their passive role in social interactions [12]; 3) Improving information flow and positive social influence, as senior and adult experts, who control information, may resist behaviour change [13,14]. Establishing mechanisms to boost social support within and outside the aviculture network could facilitate the necessary transformative process among Red Siskin breeders [15]. The small sample size analysed (pre-campaign: 167, post-campaign: 84) may not adequately represent the views of the broader Brazilian and Iberian breeding communities. This could partly explain why pre-campaign behaviour indicators did not significantly correlate with adoption intentions. The Iberian

community made up 30% of the data, like the Venezuelan community, despite Spain's large Spanish Cultural and Sporting Ornithological Federation having over 9,000 members [16].

The small sample size limits the regression model's ability to detect significant effects. However, beyond methodological issues, the poor performance of the TPB model suggests the need to integrate other psychological variables, such as antecedents of pro-environmental behaviours and self-identity [17]. Additionally, a more nuanced framework is needed that considers the dynamic feedback between wildlife, human actions, regulatory frameworks, and politics [18].

O.3 Scope of the posts shared by social media (Facebook, Twitter, Instagram and WhatsApp) by the end of 2022 and 2023 (YSA baseline = 1,500 people by October 2020; RS baseline = 0)

From June 22, 2023, to March 31, 2024, we published 222 messages on Facebook and Instagram for the Green Sky campaign. These messages reached 14,800 accounts (203 followers) on Facebook and 3,900 accounts (520 followers) on Instagram (Figure 6). Sixteen percent of the Facebook accounts were from Venezuela, with 50% from Margarita Island, indicating limited spillover effect. Our WhatsApp group reached 80 members (Supporting material > SocialMedia_GreenSky_Statistics[SPA]_20240331). Of the messages, 76% (146) provided information about outdoor activities and their benefits, while 63% (139) covered social norms, and 64% (142) addressed attitudes. Messages about barriers to participation (perceived control) made up 25% (55) of the content (Figure 25a) (Supporting material > MessagesEvaluation_GreenSky[SPA]_20240331).

For the Nesting Future campaign, from June 6, 2022, to December 21, 2023, we published 144 messages on Facebook and Instagram. These messages reached 57,809 accounts (244 followers) on Facebook and 2,600 accounts (266 followers) on Instagram (Figure 7). On Facebook, 33% of the accounts were from Spain, 15% from Venezuela, 11% from Portugal, and 11% from Brazil, with the remaining 30% spread across other countries. On Instagram, Brazilian breeders represented 52% of reached accounts, followed by Spain at 16%, showing the importance of using multiple communication channels. The limited reach beyond target countries suggests a constrained spillover effect (Supporting material > SocialMedia_NestingFuture_Statistics[SPA]_20231215). Sixty-two percent of the messages (90) provided information about sustainable captive-breeding options (knowledge). Forty-seven percent (68) focused on positive attitudes towards sustainable practices, while 41% (59) covered social norms, and 14% (20) addressed barriers to participation (perceived control) (Figure 25b) (Supporting material > MessagesEvaluation_NestingFuture[SPA]_20231215).

O.4 Percentage of the scope with positive values (sentimetric analysis) related to the campaign messages posted in social media (Facebook, Twitter, Instagram and WhatsApp) in 2022 and 2023 (YSA baseline = 50%; 750 likes/1,500 people by October 2020; RS baseline = 0):

We assessed the quality of each message using a scale from 0 to 9, with 9 indicating that all the recommendations for framing conservation messages have been covered [7]. Subsequently, we examined the correlation between message quality and interaction indicators, such as likes, shares, and comments. For the Green Sky campaign, a positive but weak correlation between message quality and the number of accounts reached (cor = 0.3) and comments received (cor = 0.2). As expected, the most popular messages (higher reach) had more likes and share rates (cor = 0.6) (Figure 25c). For the Nesting campaign, a positive but weak correlation between message quality and the number of likes (cor = 0.173), and reach (cor = 0.19). Interesting, messages with the highest quality, were the ones with less comments (cor = -0.05) (Figure 25d).

O.5 Detected YSA nest poaching rate in surveilled nest sites (baseline = 5 - 10% in the last 5 years) and RS trade rate (368 individuals/year by 2017) in 2020 and 2023:

See detailed description in the section 3.2 > point 1.7. In summary, there was an increase in 36% in poaching prevalence between 2022 and 2023 (Figure 15). As we discussed before, we acknowledge that the sample size is small, both in terms of years and nests, so this result does not necessarily represent a trend.

O.6 The proportion of wild-caught birds kept as pets is similar or lower by 2023 in relation to the baseline (YSA base line = 30% in 2019 and RS base line = 9% in 2018):

For the Green Sky campaign, as we did before-after-control-intervention design, we observed a significant and negative effect post-treatment in the self-reported keeping behaviour of the Yellow-

shouldered Amazon, with individuals participating in the campaign having significantly lower frequency of reported parrot keeping, compared to those who did not participate. In the absence of the Green Sky campaign (contrafactual), the self-reported keeping would have reduced, but in a lower proportion (Figure 26).

For the Red Siskin campaign, we were able to compare only the pre- and post-campaign self-reported siskin keeping by directly asking if participants currently practise Red Siskin captive breeding (Figure 27). Note that our question didn't explore the source of the captive siskins, as pre-pilot surveys showed that when we explicitly asked whether the bird was wild-caught, participants often abandoned the questionnaire. Therefore, our results must be interpreted as the prevalence of Red Siskin captive breeding rather than wild-caught siskin keeping. In any case, we detected a reduction in captive breeding activity for this species after the campaign implementation. However, given that we were not able to establish control-treatment groups, it is not possible to attribute this reduction in Red Siskin captive breeding directly to the campaign.

3.3 Monitoring of assumptions

Outcome level assumptions

- *Assumption 1:* Activities heavily rely on close cooperation with other national institutions. We assume that there will be sufficient financial and institutional stability for partners to keep institutional support for the project strong.
  Comments Assumption 1: There were two partners who did not continue with the intended role, but we found other similar partners to fulfil the role. All our active partners had strong financial and institutional stability.

Output level assumptions

- *Assumption 1:* People from Margarita communities and Venezuelan and international songbirds' breeders' communities will continue to be willing to participate in our study.

  Comments to Assumption 1: Participation levels in activities for both campaigns have been overwhelming (Figure 8 and 9). For the Green Sky campaign, this enthusiastic participation exceeded our logistic capacities during the first activities, with buses reaching full capacity and people on waiting lists. For Nesting Future, although the number of visualisations of the forum videos and reach of posts published in social media is high, we have consistently lower participation for Portugal breeders. Our closer collaborators from ReSAAN inform us that this pattern could be explained by the small number of breeders with interest in the Red Siskin in Portugal. An emerging problem affecting Venezuelan breeders was the escalating conflicts between Venezuelan breeders and environmental authorities. This has led to requests for the removal of breeders' testimonials supporting the campaign from social media, which could explain reduced participation in the post campaign survey.

- *Assumption 2*: Interviewee will be guaranteed anonymity, so we do not expect them to provide false or biassed answers.

  Comments to Assumption 2: In both study cases, questionnaires have been implemented in online platforms with the aim to encourage anonymity. In the case of Macanao communities where questionnaire implementation is face to face, interviewers hand out the tablets with the questionnaire link to the interviewee so they can answer the questions by themselves. Even so, some level of concealment or social desirability (i.e. people do not answer what they think but what they believe is socially expected) is expected in the questions assessing keeping behaviour. To reduce this possibility, we highlighted across different sections of the questionnaires that this survey is about people's opinions and perceptions, hence there are no "correct" or "wrong" answers (Supporting Material > Behaviour monitoring Green Sky > SurveyProtocol_GreenSky[SPA]_20220422.docx; Behaviour monitoring Nesting Future > SurveyProtocol_NestingFuture[SPA]_20220222.docx).

- *Assumption 3*: We expect that participants will feel comfortable completing questionnaires and participating in campaigns activities.

  Comments to Assumption 3: For the Green Sky audience we considered that they were willing to answer the questionnaires and participate in the activities. However, for the Nesting Future

audience, although participation was high, the reply rate for the surveys was worryingly low, which prevented us from reaching the sampling size proposed as goal. See our Comments to Assumption 1.

- *Assumption 4*: There will be sufficient political stability, and no lock-down as response to COVID to hold core activities.

  Comments to Assumption 4: Fortunately, Venezuela experienced a sufficient degree of social and political stability during 2022 and 2023. COVID was also not an issue.

- *Assumption 5*: Internet and power services will be stable enough to allow online workshops, questionnaires, and staff virtual meetings.

  Comments to Assumption 5: Internet and energy services were stable enough to allow our team in Venezuela to hold the workshops and meetings necessary to carry out the project. We established a contingency plan to provide gas for electricity generators during workshops with breeders and in-person central activities in Macanao.

- Assumption 6: We believe that our partners will also help us reach the audience.

  Comments to Assumption 6: We managed to sustain and develop new very valuable partnerships willing to provide logistic support for activities implementation and promote local participation by disseminating campaign's messages through their communication channels (newsletter, social media, etc.) (see section 2. Project partnership).

- Assumption 7: Partners will be willing to promote the toolkits in their web pages.

  Comments to Assumption 7: The support of our partners and collaborators went above and beyond to make their communication channels available to share our toolkits, press notes, and invite us as case studies in their workshops (see section 2. Project partnership, section 13 Outstanding achievements of your project).

- Assumption 8: Raising awareness of these species will not lead to unintended increases in demand, and measures to avoid such increases should be considered.

  Comments to Assumption 8: At the request of the AYR1 reviewer, we added a new assumption to our monitoring efforts. We included more moral standards statements in our post-campaign questionnaires to measure the prevalence of moral licences around demand.

3.4 Impact

Project contribution to a higher-level impact on illegal wildlife trade: We have achieved a positive impact in combating illegal wildlife trade by reducing intentions to illegal demand of two threatened bird species. We did this by adopting and adapting best practices for designing, implementing, and monitoring behaviour change campaigns aimed at reducing the demand for threatened bird species in the South American and especially the Venezuelan context. By developing and freely sharing our four tool kits online in both Spanish and English, based on the best available scientific information, these practices can be easily adopted by other South American organisations.

Project contribution to a higher-level impact on human development and wellbeing (poverty reduction): We made a significant impact on human development and well-being by providing discussion spaces and tools to enhance empowerment, participation, and access to knowledge for adopting more sustainable behaviours. However, more effort is needed to engage Brazilian and Portuguese RS breeders, who may be lagging due to language barriers. Similarly, empowerment and leadership scores were worryingly low among Red Siskin breeders' communities. In contrast, the Green Sky campaign's quantitative evaluation showed improved community capacities and a sense of empowerment, though more effort is needed to boost leadership.

4. Contribution to IWT Challenge Fund Programme Objectives

4.1 Thematic focus

Our project worked to reduce demand for wild-caught Yellow-shouldered Amazons (YSA) and Red Siskins (RS) (thematic focus Reducing demand for IWT products) through the implementation of behaviour change campaigns focused on promoting alternative behaviours that fulfil demand motivations in the focal consumer audience. We successfully implemented and monitored two campaigns, Green Sky and Nesting Future, carefully designed using scientific evidence available, audience consultation, and following best-practices promoted by Defra's Demand Reduction consortium and TRAFFIC. Evidence supporting this:

- We applied a before-after-control-impact (BACI) approach to measure impacts in terms of both behavioural indicators (demand intentions, adoption intentions, attitudes, norms, and control), and conservation outputs (self-reported keeping). For Green Sky we fully developed the BACI approach with two controls and two treatment localities. For Nesting Future, we were only able to develop a before-after approach.
- We monitored Yellow-shouldered Amazon's nest poaching, and Red Siskin's online trade before and after campaign implementation as indicators of conservation outcomes.

4.2 Impact on species in focus

Our project worked to reduce demand for wild-caught Yellow-shouldered Amazons (YSA) and Red Siskins (RS), which is the second most important threat of both species. The estimated captive population of YSA in Macanao is approximately 7,000, over three times larger than the wild population (2,100 parrots in 2021). This captive population is sustained by anti-poaching efforts led by Provita. Nest poaching rate in non-surveilled nesting sites increased 36% in one year (between 2022 and 2023). This increase could be attributed to increased sampling effort in 2023 compared to 2022, as we found more active nest cavities in 2023; it could also not represent an actual trend, given the low number of nests found and years sampled. Alternatively, this may indicate an increase in extraction rate, but we need to continue monitoring with a standardised sampling effort to confirm this trend. We must take into account that the campaign only targeted two of the 12 local towns, even when they are two of the most populated ones (Boca de Pozo and Robledal), the campaign kept as control another of the most populated (Boca de Río); these other communities could be driving an important proportion of the demand. If the increased extraction rate is confirmed, this would suggest that either we need to escalate the scope of the campaign to increase the number of people and communities reached, so this translates in an impact to extraction reduction; or it could also suggest that parrot illegal trade is driven by extraction and not by demand as we initially diagnosed, meaning that we need to re-assess our intervention focus and strategy.

Similarly, for the RS, at least 368 RS are traded per year (most of them suspected to be wild-caught) [9]. This represents a significant negative impact on the remaining small populations present in Venezuela (< 6,000 individuals) [1]. The wild-caught red siskins trading rate on Facebook had a reduction of 2% between 2022 (launch of the Nesting Future campaign) and 2023 (end of the campaign). This result, along with the observed increase in the trade of captive-bred individuals, suggests a positive trend of using sustainable options (captive-bred individuals) instead of wild-caught ones. However, this reduction in illegal wild-caught offerings could also reflect that traders are more careful in advertising due to recent strengthening of anti-illegal trade policies adopted by Facebook.

4.3 Project support for multidimensional poverty reduction

Within the framework of the project, we are not confronted with a lack of resources, but rather with a scarcity of opportunities and the imperative need to foster empowerment, especially of women.

Therefore, in the community of Macanao, particularly women, were the primary beneficiaries of the Green Sky campaign, yielding the following benefits: 1) Community capacities related to best practices in birdwatching and interpretative trail guiding were enhanced. This enabled women to independently organise outdoor activities. A group called "Macanao bajo las estrellas" emerged, led by an active participant in the campaign, who now organises camps, hikes, and bird watching excursions, extending invitations to other community members to join; 2) As part of the core activities, we established an interpretive trail in the Chacaracual Community Conservation Area. Initially, we managed it in collaboration with Macanao Trekking, a local private ecotourism company, with the aim of advancing local capacity building. We aspire for the guides trained during the campaign to eventually organise and lead private tours, becoming an additional source of income for them; 3) Participation increased

significantly, throughout the campaign, we actively engaged young people and seniors who previously showed indifference to participating in outdoor community activities. Now, they participate and contribute enthusiastically.

For the RS behaviour change campaign, the main beneficiaries were the Venezuelan Red Siskin breeder community, achieving the following: 1) Focusing both on core activities and communication, we aimed to enhance technical capabilities for effectively managing captive-bred populations without using specimens caught in the wild. This involved providing access to information in Spanish and Portuguese; 2) The representation of Venezuelan breeders in international aviculturist communities continued to rise in our online discussion forums.

4.4 Gender Equality and Social Inclusion (GESI)

We have a prominent representation of women in our team, highlighting our strong commitment to gender inclusion. This includes both the directive of Provita, Bibiana Sucre as executive director, and Ingrid Zager as operations director. Additionally, Ada Sánchez-Mercado is the project leader, Arlene Cardozo-Urdaneta, our scientific communicator, and María Daniela Pineda, the coordinator of the Green Sky campaign. Similarly, our partners also stand out for their notable inclusion of women. At the Smithsonian Institution, our main contact is Kathryn Rodríguez-Clark; at IUCN National Committee of the Netherlands Foundation, our contact is Liliana Jauregui; and at Fundefir, we work with Yajaira Acevedo.

Please quantify the proportion of women on the Project Board[1].	62% (5 women, 3 men)
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].	57% (4 project partnership led by women, 3 men)

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

5. Monitoring and evaluation

For this project, M&E were fully developed. We used different performance indicators, including project progress and scope, expenses, risks and opportunities, and lessons learned. Monthly reports were

[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.

generated detailing the overall project progress using an S-curve and a Work Breakdown Structure (WBS). These reports focused on planning (whether planned activities were developing timely), implementation (whether required resources were available timely), and scope (whether outputs and activities were contributing to the project outcome). To monitor project scope, a matrix with funder-specific requirements (e.g., outputs, activities, etc.) was created, validating whether each requirement was included in the WBS and budget. General progress was visualised through a traffic light scheme, where green (good) indicated a deviation less than 15%, yellow (warning) indicated a deviation between 15% and 30%, and red (critical) represented a deviation over 30%. To monitor expenses, monthly expense analyses were conducted based on the approved budget and actual expenses incurred during the month, projecting expenses until the end of the period or the funder's fiscal year. Exchange rates and expenses were updated daily, allowing real-time cost projections. Monthly risk and opportunity assessments were also conducted. Every four months, lessons learned (Supporting material > Learned Lessons[SPA]_20240423) were shared and discussed within each project, later presented in a joint workshop among all Provita projects (Supporting material > Risk analysis). We implemented various strategies to share M&E among staff, partners, and stakeholders. During the project development, weekly follow-up meetings were held to check activity progress and plan. Monthly presentations to all Provita staff were conducted, highlighting achievements (excluding activities) reached in that period. Progress was shared with partners based on a power-interest analysis of stakeholders/partners (Supporting material > StakeholderMatrix[SPA]_20240322), allowing the development of a suitable communication strategy with each of them. Monthly meetings were maintained with partners requiring close communication, occasional emails with those needing satisfaction, and occasional communication, approximately every 6 months, with those needing to be informed.

6. Lessons learnt

Lessons learnt regarding stakeholder management were described in section 2. Additional lessons are:

- **Included in the timetable, the capacitation time for the new staff:** This funding enabled Provita to enhance local capacity to combat illegal wildlife trade in Venezuela and the region. While our staff already had a strong foundation in illegal wildlife trade monitoring, they spent the first two months expanding and building shared knowledge of behaviour models, behaviour change campaigns, and communication strategies in conservation. Despite this intensive learning phase, the project timeline remained on track, thanks to their dedication.
- **Clarify and incorporate guidelines from the beginning:** Initially, we scheduled based on January to December, requiring significant adjustments to align with the UK fiscal year. Additionally, we overlooked the need for project-specific audits in our initial budget. Clearer adherence to IWTCF guidelines from the outset would have saved us considerable time.
- **Structured but flexible action plan for the campaigns.** Establishing a detailed action plan of the campaign, mapping the core and communication activities across time, as well as against impact and progress indicators described in each campaign Theory of Change, allowed us to handle changes in activities timeline, content, and format delivery. With this action plan, it was easier to choose the order to introduce the behaviour drivers (knowledge, norms, attitudes, control), and define its duration.
- **Activities design that allows adaptation**. For each activity, we created a structured dossier describing objective, audience, actions, timetable, staff, equipment requirements, and necessary local support. This approach facilitated reproducibility, traceability of efforts according to the ToC, and adaptability. The objective was to enable anyone to implement the activity in the future by following the file's specifications. Future improvements to the activities file will include a return-on-investment indicator that relates the cost of implementing a specific activity to its results (such as participation and satisfaction). By comparing the results across activities, we can better identify which activities are scalable.
- **Effective teamwork in project implementation.** Throughout the project, there were changes in the team, some members left, and others joined. To facilitate the onboarding process for new staff members and minimise the impact of these changes on the implementation schedule, we prioritise team communication and knowledge sharing. Although each staff member has a clear list of duties, we all stay informed about what other team members are doing, where the results are, and means of verification, so that if someone is not available, another team member can provide support and get on with the work. By doing so, we ensure that the team functions as a cohesive unit and can adapt effectively to any changes or challenges that may arise.

- **Quickly track patterns and trends.** To ensure timely adaptation of activities, it is essential to analyse data quickly and reliably. By automating the analysis using scripts and markdowns from the R programming language, we optimise processes and generate reports in almost real time. This allowed us to detect errors in our poaching and online trade monitoring protocols and make the necessary adaptations. In addition, we adapt our communication efforts to reach underrepresented sectors, as was the case in Portugal in the Nesting Future campaign, or older people and young people in Green Sky.
- **A short and sweet list of progress indicators.** Initially, we recorded a long list of progress indicators to monitor social media, satisfaction surveys, and participation. However, we soon realised that this approach was time-consuming and that several of these indicators did not provide useful information. Choosing informative, traceable, and straightforward indicators eases the monitoring process, including maintaining consistency of indicators across time despite periodic updates and changes in the formats provided by social media platforms, or changes in survey structure.
- **Difficulty reaching large and dispersed audiences.** We struggled to assess satisfaction across Nesting Future's diverse and widespread audience. Limited staff and connections in key segments like Portugal and Brazil hindered effective audience management. In hindsight, focusing initially on a single segment, such as Venezuela, and strengthening local breeder collaborations would have been more effective. By leveraging international partnerships, we could have facilitated knowledge transfer to Venezuelan breeders, particularly in managing red siskin aviaries with captive-bred birds. Starting small and expanding gradually would have allowed us to implement core activities and engage in a more genuine way with the audience.

7. Actions taken in response to Annual Report reviews

We received reviewer comments for our Annual Report 2, which were addressed in the CR (Supporting material > Actions taken in response to Annual Report reviews). The reviewers focused on increasing secured matched funding, updating output indicators 2.1 and 2.3 in our framework, and extending core activities in the Green Sky campaign as much as possible. We have fulfilled all these recommendations.

8. Sustainability and legacy

- **Increased interest and capacity as a result of the project:** We were invited by the European Association of Zoos and Aquaria (EAZA) to co-coordinate the Silent Forest – Songbird Trade Side Event at the CITES CoP19 in Panama, November 2022. We presented on our Nesting Future campaign and featured in the IWT Challenge Fund Newsletter, November edition. In September 2022, we shared case studies at a TRAFFIC and WCS workshop in Lima, Peru, on CITES demand-reduction strategies. In March 2023, we presented at a Biodiversity Challenge Funds workshop, and in November Green Sky was selected as a case study in the Rare's Behaviour Change course. We participated in the II High Level Conference of the Americas on Illegal Wildlife Trade in Cartagena, Colombia (April 2022), marking our first involvement in such a high-profile event. This increased our visibility with NGOs and institutions working on IWT in the region. Subsequently, we joined the Launch of the Regional Chapter of United for Wildlife in Latin America and the Caribbean in Santa Marta, Colombia (July 2023), leading to an invitation to present a task force alert on Red Siskin trafficking to international airport and port authorities. These events provided excellent opportunities to disseminate our project results, promote behaviour change materials, and strengthen our collaboration network in the IWT arena (Supporting material > Outstanding achievements).

- **Action taken as part of the project's open access plan:** All resources created in the project are available on our website (www.volandojuntos.org). Additionally, we shared the toolkits on Figshare and ResearchGate platforms, and we created several GitHub repositories to store files, code, and data associated with the project. These repositories are private but will be open once the scientific publications are completed. Although the cost of open access publications was not included in our budget, open access publishing for the two scientific manuscripts submitted as part of this project, was facilitated by the University of New South Wales, where the Principal Investigator is affiliated, as part of the Wiley - University of New South Wales agreement via the Council of Australian University Librarians.

- **Planned exit strategy:** Through the Green Sky campaign several local groups are now taking the lead in continuing outdoor activities linked to the behaviour promoted by the project, giving in

some way continuity and local ownership of our work. We are also actively seeking other sources of funding for our long-term commitment to reducing illegal demand, as we have done successfully to date. We were awarded the "People's Choice Award" (USD 20,000) of the Changing Unsustainable Trade contest by Solution Search. With this fund, we are continuing with the core,communication and evaluation activities of the Green Sky campaign.

- **Sustainable benefits post-project:** Our campaigns have successfully enhanced community capacities by conducting workshops on relevant topics tailored to each audience, such as birdwatching and interpretative trail guides in Macanao, and sustainable captive-bred management for Red Siskin breeders in Venezuela, Spain, Portugal, and Brazil. We anticipate that these newly acquired skills will enable communities to organise independent outdoor activities in Macanao and increase the productivity of captive-bred red siskins, thereby eliminating the need for wild-caught birds. We believe that this will not only support our exit strategy but also pave the way for scaling up these efforts in other communities. Also, as part of our Green Sky campaign, we established an interpretive trail in the Chacaracual Community Conservation Area. Our hope is that in the short to medium term, the trail will provide an additional source of income for the people of Macanao, who have been trained as guides. Our goal is to continue strengthening local capacities, with a focus on sustainable tourism. By diversifying their income sources, we aim to support the community's economic development and sustainability.

9. IWT Challenge Fund Identity

During the project, Provita published 16 press releases (https://www.provita.org.ve/noticias/) covering the launch of our campaigns, participation in international conferences, activities, tool releases, a Solution Search award, its delivery to Macanao communities, and the project closure. We also published 10 press releases on the project website (https://www.volandojuntos.org/news) featuring relevant news. The project's objectives were disseminated through 30 local newspapers. Our team participated in 6 national radio interviews and held over a dozen meetings with local and international partners. In all communications, we acknowledged the UK's support by including the phrase "This project is funded by the UK Government through the Illegal Wildlife Trade ChallengeFund" and the logos of UK Aid, DEFRA, and IWT. The IWTCF is the main funder of our project and is recognized as a distinct initiative. To drive engagement with our audience (NGOs, IWT researchers, and funders), we developed a project image, including a website, Twitter account (@Volando_Juntos_), Instagram (iniciativa_volando_juntos), and Facebook (https://www.facebook.com/profile.php?id=100078782014380). These are linked to the IWT Challenge Fund/Biodiversity Challenge Funds, and we used #IWTCF in all posts.

10. Risk Management

No new risk has been raised in the last 12 months that were not previously accounted for. Beside our internal risk analysis matrix (Supporting material > Risk analysis > IWT102 Project and activity risk Provita_SPA_20240206), we used the IWTCF risk analysis matrix, which allowed us to identify the monetary costs associated with each risk and the measures of profitable mitigation (Material support > Risk analysis >IWT102 - Risk of projects and activities IWTCF_ENG_20240206). We identified 21 risks related to both campaigns, mostly related to logistics (power outages, poor internet connection, etc.) which we mitigated with the support of the logistics capacity of stakeholders.

11. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes
Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes / Linda [redacted] / Human Resources Direction 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?	100%
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. No	
Please describe any community sensitisation that has taken place over the lifetime of the project; include topics covered and number of participants. No	
Have there been any concerns around Health, Safety and Security of your staff over the lifetime of the project? If yes, please outline how this was resolved. No	

12. Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual IWTCF Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[redacted]			
Consultancy costs				
Overhead Costs				The cost of the independent audit was less than the initial offer delivered.
Travel and subsistence				We had planned the attendance of the Campaign Coordinator to Colombia for the behaviour change workshop, which could not be carried out, obtaining savings in terms of travel.
Operating Costs				
Capital items (see below)				
Others (see below)				We used less of the planned budget, as the empowerment of the communities in the activities of the campaign made the collaboration of hired local leaders less and less necessary. The Campaign Coordinator did not attend Colombia during the behaviour change workshop held by RARE.
TOTAL	**86,496**	**82,972**		

Staff employed (Name and position)	Cost (£)
Ada Sánchez (Lead Applicant - Scientific Director)	[redacted]
Arlene Cardozo (Scientific Communicator & RS Program)	
María Daniela Pineda (YSA Campaign Coordinator)	
Lisandro Morán (RS Campaign Coordinator)	
Albert Narváez (YSA Campaign Officer)	
Alejandro Díaz (Project Manager)	
Génesis Ramírez (RS Campaign Officer)	

TOTAL	**61,376**

Capital items – description	Capital items – cost (£)
Not applied	
TOTAL	

Other items – description	Other items – cost (£)
Local leaders' communities staff (Ecoguardians)	
Catering (core and recreational activities)	
Materials	
Event Inscription	
Local transport for activities	
Applications and Software	
TOTAL	**3,370**

12.2 Additional funds or in-kind contributions secured

Matched funding leveraged by the partners to deliver the project	Total (£)
Provita (Year 3)	
Binoculars 4 Charity (In Kind)	
TOTAL	**30,647**

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	Total (£)
People's Choice Winner 2023 - RARE	15,748
TOTAL	**15,748**

12.3 Value for Money

The main project costs were staff fees. Project staff were selected based on their training, experience, and trajectory, with remuneration competitive with other NGOs and private companies in the country. For other expenses, several offers were evaluated to choose the best quality-price within the budget. Throughout the project, we aimed to: 1) Identify efficiencies through collaboration with local partners; 2) Utilise local capacity to reduce transportation costs and speed up service and product delivery. The project offered good value for money by working with two threatened species across different regions, implementing behaviour change theories in diverse contexts. Lessons learned were widely shared through our website (www.volandojuntos.org) and various events. The project's impact extends beyond its duration, influencing behaviour to reduce illegal trade demand and increasing sustainable use intentions. The project also expanded Provita's and staff's experience to advance further similar efforts in Venezuela, focusing on illegal wildlife trade, behaviour change, and conservation markets. Continuous cost control and activity evaluation allowed us to identify savings, which funded additional activities like conference attendance. These efforts increased the project's visibility and reach.

13. Other comments on progress not covered elsewhere

None.

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

We agree with the Biodiversity Challenge Funds Secretariat to publish the content of this section. Our project worked to reduce the demand for wild-caught birds, specifically the Yellow-shouldered Amazon and the Red Siskin, through behaviour change campaigns. The Green Sky campaign focused on promoting new ways for the Macanao communities in Venezuela to enjoy parrots without keeping them captive, while the Nesting Future campaign focused on promoting responsible bird sourcing in Red Siskin captive-breeding practices. With the project we also published 4 toolkits in Spanish and English, on how to design, implement and evaluate behaviour change campaigns, adapted to the Latin American context.

Campaign implementation involved developing core and communication activities under a before-after-control-impact approach to measure impacts in terms of both behavioural indicators and conservation outputs. For the Green Sky campaign, participants showed significantly lower intentions to keep parrots as pets, lower self-reported parrot keeping, and higher adoption intentions compared to non-participants. The observed change in adoption intentions was influenced by an increase in the resonance of social norms promoting adoption. Despite the observed reduction in both demand intention and self-reported current keeping behaviour, there was an increase of 36% in the yearly nest poaching rate in unsupervised nesting sites. However, we expect that if demand intentions remain low in the coming years, this will translate into a decrease in the nest poaching rate.

For the Nesting Future campaign, we were able to implement only before-after comparisons. Due to this and the low sample size, we are very cautious in attributing changes in behavioural indicators or conservation outcomes directly to the campaign. Demand intentions for wild-caught red siskins were generally low, with a 9% reduction after campaign implementation. There was a reduction in self-reported captive breeding for the Red Siskin after the campaign. Although social liability could explain these low intentions and keeping, these results align with the low proportion of potential wild-caught red siskins (0.8 - 3%) detected in online trade monitoring. Adoption intentions increased after the campaign, seemingly driven by increased attitudes and perceived moral norms towards breeders' collaboration. Interestingly, the perceived role of experts and their associated prestige seems to prevent adoption rates, suggesting that more effort should be done to reduce intergenerational conflicts.

Our project was awarded the Solution Search People’s Choice Award and has received collaboration invitations from leading institutions in the field including TRAFFIC, Rare, United4Wildlife, and the Silent Forest Initiative. Recently, we were invited to contribute to the IUCN’s Commission on Education and Communication guide, Creating Effective Environmental Communication Strategies. Our toolkits, although incipient, have been welcomed by South American practitioner communities, and we have had meetings with colleagues from Rare, Selva de Pino Paraná, Fundación Temaikèn, and Parque Biodiversidad interested in using our tools or our campaigns as case studies.

Image, Video or Graphic Information:

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
Video	Flying_Together_Final_Video_20240501.mp4	Caption: We have completed the behavior change campaigns to reduce the demand for wildlife! Country: Venezuela Credit: Provita	*@provita_org*	Yes
Video	Video 1_Lanzamiento Campaña_Cielo Verde_SubEN.mp4.	Caption: Green Sky received the People's Choice Award from Solution Search. Country: Venezuela Credit: Provita	*@provita_org*	Yes
Picture	CITES CoP19_Bibiana Sucre_20221124_4.jpeg	Caption: Provita participating in the CITES CoP19 Country: Venezuela Credit: Provita	*@provita_org*	Yes
Picture	SolutionSearchAwardCeremony_AdaSanchezMercado_20231112	Caption: SolutionSearchAwardCeremony Country: Venezuela Credit: Provita	*@provita_org*	Yes
Picture	United4Wildlife_BibianaSucre&DanielaPineda_FotoOficial_20230727_06	Caption: Provita at the regional launch of the United4Wildlife Country: Venezuela Credit: Provita	*@provita_org*	Yes
Picture	Birdwatching in Macanao_ 20221108_Credits Karilexis Ramirez	Caption: Birdwatching in the Green Sky campaign Country: Venezuela Credit: Karilexis Ramirez	*@provita_org*	Yes
Picture	Artificial Nest Building in Macanao_20230420_Credits Jesus Aranguren 1	Caption: Artificial Nest Building in the Green Sky campaign Country: Venezuela Credit: Jesus Aranguren	*@provita_org*	Yes
Picture	Interpretative trail in Macanao_20230325_Credits Aleidy Marcano 2	Caption: Interpretative trail in the Green Sky campaign Country: Venezuela Credit: Aleidy Marcano	*@provita_org*	Yes
Picture	Yellow shouldered Amazon_20230401_Credits Vivek Memon	Caption: Yellow shouldered Amazon Country: Venezuela Credits: Vivek Memon	*@provita_org*	Yes
Picture	Red Siskin_Venezuela_Manuel Perez_iNaturalist_20231116	Caption: Red Siskin_ Country: Venezuela Credits: Manuel Perez iNaturalist	*@provita_org*	Yes

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

Project summary	Progress and Achievements
Impact ***Advance in the development of good practices for demand-reduction behaviour change campaigns and increase their taxonomic and geographic scope.***	
Outcome: Systematic demand reduction campaigns lead to a reduction in illegal wild bird trade, local people increase intentions to engage in sustainable use, and new guidelines are available for the region.	
Outcome indicator 0.1. Intentions to acquire wild-caught birds in focal audiences measured through interviews, will remain with similarly low values (1 - 2 points in Liker scale) by 2023 as was in 2022 (baseline = 2.15 - 1.35 in YSA; 1.12 - 1.59 in RS)	**Green Sky**: After the campaign, there was a significant effect, with individuals who participated in the campaign showing significantly lower intentions (1.4) to keep parrots as pets compared to those who did not participate (2.2). Without the Green Sky campaign (contrafactual), the intentions to keep parrots would have remained at values like those before the campaign (2.3). **Nesting Future**: Demand intentions decreased from 9% to 0% after the campaign implementation. However, since we did not establish control-treatment groups, it is not possible to attribute this reduction in demand intention directly to the campaign.
Outcome indicator 0.2 Intermediary behaviours measures (knowledge, attitudes, perceived social norms, moral norms and control) in focal audiences measured through interviews, will increase by 10% in 2023 in relation to the baseline level measured in Q4 - 2022.	**Green Sky**: A significant and positive effect post-treatment, with individuals participating in the campaign having significantly higher adoption intentions (4.3) compared to those who did not participate (3.9). The observed change in adoption intentions was influenced by an increase in the resonance of social norms promoting adoption. Conversely, moral norms exhibited a negative association with adoption intentions **Nesting Future**: Adoption intentions increased 10% after the campaign. However, without control-treatment groups, we can't directly attribute this change to the campaign. After the campaign, adoption intentions showed a significant positive correlation with attitudes and perceived moral norms. Conversely, social norms and conformity exhibited a negative association with adoption intentions, suggesting that individuals with lower intentions tended to value fewer expert recommendations and the associated prestige.
Outcome indicator 0.3 Scope of the posts shared by social media (Facebook, Twitter, Instagram and WhatsApp) by the end of 2022 and 2023 (YSA baseline = 1,500 people by October 2020; RS baseline = 0).	***Green Sky****:* Scope of message shared reached 14,800 accounts (203 followers) on Facebook and 3,900 accounts (520 followers) on Instagram**.** ***Nesting Future****:* Messages reached 57,809 accounts (244 followers) on Facebook and 2,600 accounts (266 followers) on Instagram.
Outcome indicator 0.4 Percentage of the scope with positive values (sentimetric analysis) related to the campaign messages posted in social media (Facebook, Twitter, Instagram and WhatsApp) in 2022 and 2023 (YSA baseline = 50%; 750 likes/1,500 people by October 2020; RS baseline = 0).	***Green Sky***: A positive but weak correlation between message quality and the number of accounts reached (cor = 0.3) and comments received (cor = 0.2). As expected, the most popular messages (higher reach) had more likes and share rates (cor = 0.6). ***Nesting Future****:* A positive but weak correlation between message quality and the number of likes (cor = 0.173), and reach (cor = 0.19). Interesting, messages with the highest quality, were the ones with less comments (cor = -0.05).

Outcome indicator 0.5 Detected YSA nest poaching rate in surveilled nest sites (baseline = 5 - 10% in the last 5 years) and RS trade rate (368 individuals/year by 2017) in 2020 and 2023.	***Green Sky****:* Nest poaching prevalence was 14% in 2022, and 50% in 2023, this represents an increase of 36% between 2022 and 2023.
Outcome indicator 0.6 The proportion of wild-caught birds kept as pets is similar or lower by 2023 in relation to the baseline (YSA base line = 30% in 2019 and RS base line = 9% in 2018).	***Nesting Future*****:** In 2022 only 3% of trade records in Facebook involved potential wild-caught red siskins, while in 2023 dropped to 0.8%, representing a decrease of 2%
Output 1: Reduce-demand behaviour change campaigns for the two focal species designed, implemented and evaluated using best practices, behaviour theory and ground evidence.	
Output indicator 1.1 100% of planned core and recreational activities implemented and monitored by 2022 and 2023 (baseline = 0).	***Green Sky:*** 100% of planned activities (24 core activities) were implemented with a rate of 1-2 activities per month***.*** ***Nesting Future*****:** 100% of planned activities (four online forums) were implemented.
Output indicator 1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0).	***Green Sky*****:** We recorded attendance for all 24 core activities. Gender distribution was 75% women (mean age 47) and 25% men (mean age 32). Adults (mean age 42) made up 52% of participants, young adults (mean age 21) 18%, elderly adults (mean age 68) 17%, and children (mean age 12) 13%. ***Nesting Future*****:** Core activities were online so participation was measured as views of recorde forum sessions. We had 3,021 views. The majority were men (81%), with 41% aged 18-25, 36% aged 26-59, and 23% over 60.
Output indicator 1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%).	***Green Sky:*** We conducted satisfaction surveys for 58% of participants in core activities. ***Nesting Future:*** We failed to get quantitative participation indicators. We only got 17 replies for the satisfaction questionnaires. We used ‘likes” to Facebook posts containing forum videos as an alternative indicator**.**
Output indicator 1.4 The number of surveys to measure intermediary behavioural indicators reach 80 -100% of the sampling size established by the power analysis in each focal audience in 2022 and 2023.	***Green Sky****:* Pre campaign surveys reached 472 answers, which overcome our sampling size established as goal (362 answers). Pots campaign surveys exceeded our sampling target with 561 responses (154% of the target 362). ***Nesting Future*****:** Pre campaign surveys assessing behavioural indicators and self-reported keeping behaviour reached 45% of the sampling size established as goal (216 answers out of the targeted 480). Post campaign surveys reached only 38% of our target (184 out of 480 responses).
Output indicator 1.5 Surveys assessing the number of YSA kept as pets (self reported behaviour) reach 80 -100% of the sampling size established by the power analysis in each focal audience.	***Green Sky***: Same as in Output indicator 1.4 ***Nesting Future***: Same as in Output indicator 1.4

Output indicator 1.6 Surveys assessing the number of wild-caught red siskins in captivity in domestic and international facilities (self reported behaviour), reach 80 – 100% of the sampling size established by the power analysis in each focal audience.	***Green Sky***: Same as in Output indicator 1.4 ***Nesting Future***: Same as in Output indicator 1.4
Output indicator 1.7 Percentage of decrease in the number of YSA's nest poaching events in the middle of the parrot's breeding season (Q1) in 2022 and 2023.	***Green Sky****:* Nest poaching prevalence was 14% in 2022, and 50% in 2023, this represents an increase of 36% between 2022 and 2023
Output indicator 1.8 Percentage in the number of events of offers, demand, possession, and exchange of RS recorded at the beginning (Q4 2022), and the end (Q2 2023) of the campaign.	***Nesting Future*****:** In 2022 only 3% of trade records in Facebook involved potential wild-caught red siskins, while in 2023 dropped to 0.8%, representing a decrease of 2%.
Output 2: Online tools and guides to design, implement and monitor robust best practice demand-reduction behaviour change campaigns freely available in Spanish and English.	
Output indicator 2.1 The total number of views and downloads of the toolkits should reach 300 and 180, respectively, by December 2023.	Visualisations range from 43 (toolkit 4) to 356 (toolkit 1), while downloads range from 29 (toolkit 4) to 211 (toolkit 1). The toolkit 4 has the highest monthly viewing (43 views/month) and downloading rate (29 downloads/month)
Output indicator 2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0).	None of our original partners have web links or have promoted our tools through press releases or newsletters. However, we have effectively shared and promoted our toolkits through an expanded network of implementation partners, including People not Poaching and IUCN-CEC's Nature for All, and a list of 158 professionals and institutions.
Output indicator 2.3. Citation-based metrics of the toolkits reflect up to 2 citations by March 2024 (baseline 2022 = 0).	Currently, there are no citations recorded for any of the tools. However, the two manuscripts submitted to Conservation Science and Practice, currently under revision cite the first three toolkits

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Advance in the development of good practices for demand-reduction behaviour change campaigns and increase their taxonomic and geographic scope.			
Outcome: Systematic demand reduction campaigns lead to a reduction in illegal wild bird trade, local people increase intentions to engage in sustainable use, and new guidelines are available for the region.	O.1 Intentions to acquire wild-caught birds in focal audiences measured through interviews, will remain with similar low values (1 – 2 points in Liker scale) by 2023 as was in 2022 (baseline = 2.15 – 1.35 in YSA; 1.12 – 1.59 in RS. O.2 Intermediary behaviours measures (knowledge, attitudes, perceived social norms, moral norms and control) in focal audiences measured through interviews, will increase by 10% in 2023 in relation to the baseline level measured in Q4 – 2022. O.3 Scope of the posts shared by social media (Facebook, Twitter, Instagram and WhatsApp) by the end of 2022 and 2023 (YSA baseline = 1,500 people by October 2020; RS baseline = 0). O.4 Percentage of the scope with positive values (sentimetric analysis) related to the campaign messages posted in social media (Facebook, Twitter, Instagram and WhatsApp) in 2022 and 2023 (YSA baseline = 50%; 750 likes/1,500 people by October 2020; RS baseline = 0). O.5 Detected YSA nest poaching rate in surveilled nest sites (baseline = 5 – 10% in the last 5 years) and RS trade rate (368 individuals/year by 2017) in 2020 and 2023. O.6 The proportion of wild-caught birds kept as pets is similar or lower by 2023 in relation to the baseline (YSA base line = 30% in 2019 and RS base line = 9% in 2018).	O.1 Published articles in peer-review journals; R code analysing the relationship between intentions, attitudes, norms, control and social economic contextual variables (age, gender, education level, income level, etc) available the GibHub repository. O.2 Published articles in peer-review journals; GibHub repository with the R code analysing the changes in knowledge, positive attitudes and communication levels across treatment-control-before-after context. O.3 Internal reports and published articles in peer-review journals about overall campaigns performance. O.4 Internal reports and published articles in peer-review journals about overall campaigns performance. O.5 Database/Datasheet with the number of YSA's nest poaching events and the number of traded RS events available in Google Drive and in the GibHub repository. O.6 Internal reports and published articles in peer-review journals about overall campaigns performance.	Activities rely heavily on close cooperation with other national institutions. We assume that there will be sufficient financial and institutional stability for partners so as to keep institutional support for the project strong.
Outputs:			

1. Reduce-demand behaviour change campaigns for the two focal species designed, implemented and evaluated using best practices, behaviour theory and ground evidence.	1.1 100% of planned core and recreational activities implemented and monitored by 2022 and 2023 (baseline = 0). 1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0). 1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%). 1.4 The number of surveys to measure intermediary behavioural indicators reach 80 - 100% of the sampling size established by the power analysis in each focal audience in 2022 and 2023. 1.5 Surveys assessing the number of YSA kept as pets (self reported behaviour) reach 80 -100% of the sampling size established by the power analysis in each focal audience. 1.6 Surveys assessing the number of wild-caught red siskins in captivity in domestic and international facilities (self reported behaviour), reach 80 – 100% of the sampling size established by the power analysis in each focal audience. 1.7 Percentage of decrease in the number of YSA's nest poaching events in the middle of the parrot's breeding season (Q1) in 2022 and 2023. 1.8 Percentage in the number of events of offers, demand, possession, and exchange of RS recorded at the beginning (Q4 2022), and the end (Q2 2023) of the campaign.	1.1 Internal reports; Red Siskin Initiative web page and newsletter; Provita web page. 1.2 Internal reports with table/graph showing the attendance level by gender and age; datasheet with the attendance lists per event available in Google Drive. 1.3. Database/Datasheet with the questionnaire answers available in GibHub. 1.4 Database/Datasheet with the questionnaire answers available in GibHub. 1.5 Database/Datasheet with the questionnaire answers available in GibHub. 1.6 Database/Datasheet with the questionnaire answers available in GibHub. 1.7 Database/Datasheet with the number of YSA's nest poaching events available in GibHub. 1.8 Database/Datasheet with the number of traded RS events available in GibHub.	- People from Margarita communities and domestic and international songbirds breeders communities will continue to be willing to participate in our study. - Interviewee will be guaranteed anonymity, so we do not expect them to provide false or biassed answers. - We expect that participants will feel comfortable completing questionnaires and participating in campaign activities. - There will be sufficient political stability, and no lock-down as response to COVID to hold core activities. - Internet and power services will be stable enough to allow online workshops, questionnaires and staff virtual meetings. - We believe that our partners will also help us reach the audience.
2. Online tools and guides to design, implement and monitor robust best practice demand-reduction behaviour change campaigns freely available in Spanish and English.	2.1 The total number of views and downloads of the toolkits should reach 300 and 180, respectively, by December 2023. 2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0). 2.3. Citation-based metrics of the toolkits reflect up to 2 citations by March 2024 (baseline 2022 = 0).	2.1 Provita and partners web pages. 2.2 Change Wildlife Consumer web page, and other Defra's Demand Reduction consortium web pages. 2.3 ResearchGate cites, reads, and recommends records.	- Partners will be willing to promote the toolkits in their web pages.

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

Activity 1.1 Campaign design, including development of the Theory of Change, audience segmentation and messages design.
Activity 1.2 Pilot study to test communication strategy.
Activity 1.3 Design of campaign activities.
Activity 1.4 Measurement of baseline behaviour indicators.
Activity 1.5 Implementation of core and recreational activities.
Activity 1.6 Measuring changes in participation behaviours.
Activity 1.7 Measuring changes in intermediary behavioural outcomes.
Activity 1.8.1 Measuring changes in the number of YSA kept as pets (self reported behaviour YSA)
Activity 1.8.2 Measuring changes in the number of wild-caught red siskins in captivity in domestic and international facilities (self reported behaviour RS)
Activity 1.8.3 Measuring changes in nest poaching (direct observed behaviour YSA)
Activity 1.8.4 Measuring changes in traded bird rate (direct observed behaviour RS)
Activity 2.1 Toolkit – Module 1 development.
Activity 2.2 Toolkit – Module 2 development.
Activity 2.3 Toolkit – Module 3 development.

Annex 3 Standard Indicator

Table 1 Project Standard Indicators

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
IWTCF-C02	Number and type of IWT behaviour change materials produced / Number and type of IWT behaviour change materials distributed	Number of posts published in social media promoting campaign messages	Number of post	Campaigns	0	Nesting Future = 74 posts. Green Sky = 98 posts.	Nesting Future = 70 posts. Green Sky= 124 post.	Nesting Future = 144 posts. Green Sky= 222 post.	216 posts (3/week per 18 months)
IWTCF-C03	Number of communication channels carrying campaign messages.	Number of communication channels carrying campaign messages.	Number	Campaigns	0	Nesting Future = 2 Green Sky= 2		Nesting Future = 2 Green Sky= 2	2 channels
IWTCF-D12	Articles published by members of the project team	Number of guides produced compiling best practices and learned lessons for design demand-reduction behaviour change campaigns.	Documents	Spanish = 4 English = 4 Total = 4	0	3	1	4	4
IWTCF05	Number of people reached with behaviour change messaging	Number of participants in the campaign core activities	People	Campaigns	0	Nesting Future = 47,902 accounts reached. Green Sky = 5,914 accounts reached.	Nesting Future = 9,907 accounts reached. Green Sky= 124 8,886 accounts reached	Nesting Future = 57,809 accounts reached. Green Sky= 14,800 accounts reached.	1,000 people

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)
Understanding your audience and their behaviour. Module 1 Tool 1. Behaviour change campaigns to reduce demand for wildlife	Manual	Ada Sánchez-Mercado, María Daniela Pineda, Lisandro Moran, Arlene Cardozo-Urdaneta, Alejandro Díaz, Félix Moya (2022). DOI: 10.6084/m9.figshare.21078652	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/_files/ugd/29a284_f4b034d908f04b9fb4f9649653a68273.pdf
Defining the theory of change Module 1 Tool 2. Tools for designing behaviour change campaigns to reduce wildlife demand	Manual	Ada Sánchez-Mercado, Lisandro Moran, María Daniela Pineda, Arlene Cardozo-Urdaneta, Alejandro Díaz, Félix Moya, José Antonio Díaz-Luque (2022). DOI: 10.6084/m9.figshare.21203879.	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/_files/ugd/29a284_2bce613cadf74966bbabc474e55843ac.pdf
Strategic communication. Module 1 - Tool 3. Behaviour change campaigns to reduce the demand for wildlife	Manual	Ada Sánchez-Mercado, Lisandro Moran, María Daniela Pineda, Arlene Cardozo-Urdaneta, Alejandro Díaz, Félix Moya, Génesis Ramírez (2023). DOI: 10.6084/m9.figshare.21677177.	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/_files/ugd/29a284_02a5febcd1994781a47ad215aaf7d8f3.pdf
Teoría de Cambio para reducir la demanda de aves silvestres Cardenalito y Cotorra	Workshop report	María Daniela Pineda-Maldonado, Arlene Cardozo-Urdaneta, Lisandro Morán, Felix	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/recursos

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)
Cabeciamarilla como casos de estudio		Moya, Ada Sánchez-Mercado (2022).				
IWT Challenge Fund Newsletter: Racing Against Extinction	Newsletter	Ada Sánchez-Mercado, María Daniela Pineda, Lisandro Moran, Arlene Cardozo-Urdaneta, Alejandro DíazPetit, Félix Moya, Génesis Ramírez and Karilexis Ramírez (2022)	Female	Venezuelan	Provita, Caracas	https://www.darwininitiative.org.uk/assets/uploads/sites/3/2022/11/IWT-Newsletter-Nov-2022-Racing-Against-Extinction-FINAL.pdf
Implementing and monitoring. Module 2 - Tool 4. Behaviour change campaigns to reduce the demand for wildlife	Manual	Ada Sánchez-Mercado, María Daniela Pineda, Lisandro Moran, Alejandro Díaz, Génesis Ramírez, Karilexis Ramírez, Albert Narváez, Arlene Cardozo-Urdaneta.	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/_files/ugd/cc332f_6487e9f049dc4b1f9c2a42e1eba72c54.pdf

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

Folder name	Sub folder name	File name	Language	Description
Supplementary material	-	StakeholderMatrix[SPA]_20240322	Spanish	Spreadsheet describing project's stakeholder analysis
Supplementary material	-	Analysis of outcomes_20240630.docx	English	Document describing detailing analysis for outcome analysis
Supplementary material	-	Annex 1 Report of progress_20240702	English	Spreadsheet describing progress and achievements against Logical Framework - Annex 1 including in this report.
Supplementary material	-	Annex 2 Logic Framework_IWT102_20230920.xlsx	English	Spreadsheet describing project Logical Framework - Annex 2 including in this report.
Supplementary material	-	Contact list toolkit difusion[ENG]_20240424	English	Spreadsheet with contact list used to share the toolkits
Supplementary material	-	Figures and Tables_IWTFR_IWT102_20240629.docx	English	Document with figures and tables cited in this Final Report
Supplementary material	-	Learned Lessons[SPA]_20240423	Spanish	Spreadsheet describing the technical and administrative learned lessons
Supplementary material	-	MessageEvaluation_GreenSky[SPA]_20240331.xlsx	Spanish	Spreadsheet describing messages used in the posts of the Green Sky campaign and their evaluation
Supplementary material	-	MessageEvaluation_NestingFuture[SPA]_20231215.xlsx	Spanish	Spreadsheet describing messages used in the posts of the Nesting Future campaign and their evaluation
Supplementary material	-	Participants_GreenSkyCampaign[SPA]_20240322	Spanish	Spreadsheet describing participation records for the Green Sky campaign disaggregated by activity, locality, gender, and age
Supplementary material	-	Participants_Nesting Future[SPA]_20231027	Spanish	Spreadsheet describing participation records for the Nesting Future campaign disaggregated by activity, country, gender, and age
Supplementary material	-	References list_IWT-FR2_IWT102_20240612.docx	English	List of references cited in the Final Report
Supplementary material	-	SatisfactionSurveys_GreenSky[SPA]_20240322	Spanish	Spreadsheet describing describing responses to the satisfaction survey implemented after each core activity in the Green Sky campaign

Supplementary material	-	SatisfactionSurveys_Nesting Future[SPA]_20231027	Spanish	Spreadsheet describing describing responses to the satisfaction survey implemented after each online forum in the Nesting Future campaign
Supplementary material	-	SocialMedia_GreenSky_Statistics[SPA]_20240331.xlsx	Spanish	Spreadsheet describing social media statistics for the Green Sky campaign
Supplementary material	-	SocialMedia_NestingFuture_Statistics[SPA]_20231215	Spanish	Spreadsheet describing social media statistics for the Nesting Future campaign
Supplementary material	Actions taken in response to Annual Report reviews	CP 01 CR-template-July-2022_Project Ref IWT102 Provita 20221003.pdf	English	Last Change Request form submitted addressing the reviewer suggestions in the AYR2 and budget changes
Supplementary material	Actions taken in response to Annual Report reviews	Resumen de Cambios del Presupuesto,Reportes y Financiamiento recibido del Proyecto IWT102.pdf	Spanish	Summary of changes done in the budget, requested in different Change Request forms
Supplementary material	Behaviour monitoring Green Sky	survey_post_camp_clean_greensky.csv	Spanish	Responses to the questionnaire used in the post campaign survey for the Green Sky campaign
Supplementary material	Behaviour monitoring Green Sky	survey_pre_camp_clean_greensky.csv	Spanish	Responses to the questionnaire used in the pre campaign survey for the Green Sky campaign
Supplementary material	Behaviour monitoring Green Sky	SurveyProtocol_GreenSky[SPA]_20220422.docx	Spanish	Protocol describing survey implementation for the Green Sky campaign
Supplementary material	Behaviour monitoring Nesting Future	survey_post_clean_nestingfuture.csv	Spanish	Responses to the questionnaire used in the post campaign survey for the Nesting Future campaign
Supplementary material	Behaviour monitoring Nesting Future	survey_pre_clean_nestingfuture.csv	Spanish	Responses to the questionnaire used in the pre campaign survey for the Nesting Future campaign
Supplementary material	Behaviour monitoring Nesting Future	SurveyProtocol_NestingFuture[SPA]_20220222.docx	Spanish	Protocol describing survey implementation for the Nesting Future campaign
Supplementary material	Core activities	Core activities_Green Sky[SPA]	Spanish	Several documents describing different activities implemented in the Green Sky campaign.
Supplementary material	Core activities	Core activities_Nesting Future[SPA]	Spanish	Document describing the core activity for the Nesting Future campaign

Supplementary material	Extraction rates Red Siskin	ExtractionMonitoring_RedSiskinTrade_Facebook[SPA]_20230713	Spanish	Records of the number of events of offers, demand, possession, and exchange of Red Siskin in Facebook as a way of measuring trade rates
Supplementary material	Extraction rates Red Siskin	RS online trade protocol_SPA_20220326.pdf	Spanish	Document describing the steps to record the number of events of offers, demand, possession, and exchange of Red Siskin in Facebook as a way of measuring trade rates
Supplementary material	Extraction rates Yellow-shouldered Amazon	Nest poaching monitoring protocol_SPA_20230301.pdf	Spanish	Document describing the steps to monitoring nest poaching prevalence for the Yellow-shouldered Amazon.
Supplementary material	Extraction rates Yellow-shouldered Amazon	ysa_extraction_rates_20220625.csv	Spanish	Records of nest poaching monitoring in 2022
Supplementary material	Extraction rates Yellow-shouldered Amazon	ysa_extraction_rates_20230604.csv	Spanish	Records of nest poaching monitoring in 2023
Supplementary material	Outstanding achievements	Pictures & Videos	English	Pictures and videos described in the table of the section 14
Supplementary material	Outstanding achievements	IWT-Newsletter-Nov-2022-Racing-Against-Extinction-IWT102	English	Article in the IWT Newsletter Nov-2022
Supplementary material	Outstanding achievements	IWTCF & FCDO workshop_MR_20230314.mp4	English	Seminar dictated at the WTCF & FCDO workshop
Supplementary material	Outstanding achievements	Provita: Behavior Change Campaigns to Reduce Demand for Wildlife_20230905	English	Bulleting in the United for Wildlife Newsletter
Supplementary material	Risk analysis	IWT102 - Project and Activities Risk IWTCF_ENG_20240206	English	Project's risk analysis following the IWT form
Supplementary material	Risk analysis	IWT102 - Project and Activities Risk Provita_SPA_20240206	Spanish	Project's risk analysis following the Provita form
Supplementary material	Scientific publications	Sanchez-Mercado et al_CSP2-23-0324.R2_Proof_hi	English	Manuscript submitted to Conservation Science and Practice. Title: Monitoring change: A behavior-centered Theory of Change for effective demand reduction interventions

Supplementary material	Scientific publications	Sanchez-Mercado et al_CSP2-24-0195.pdf	English	The role of socialization network to understand the adoption of demand-reduction behaviours: The Red Siskin's breeders community case study

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	X
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line. All supporting material should be submitted in a way that can be accessed and downloaded as one complete package.	X
If you are submitting photos for publicity purposes, **do these meet the outlined requirements (see section 14)?**	X
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.	X
Have you involved your partners in preparation of the report and named the main contributors?	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	