





Illegal Wildlife Trade (IWT) Challenge Fund Annual 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: 30th April 2023

Submit to: BCF-Reports@niras.com including your project ref in the subject line IWT Challenge Fund Project Information

Project reference	IWT102			
Project title	Demand reduction behaviour change in illegal Venezuelan threatened bird markets			
Country/ies	Venezuela			
Lead Partner	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.			
IWTCF grant value	£ 200,505			
Start/end dates of project	1st September 2022 - 31th March 2024			
Reporting period (e.g. April 2022-Mar 2023) and number (e.g. Annual Report 1, 2, 3)	April 2022 - March 2023 - Annual Report 2			
Project Leader name	Ada Sánchez-Mercado			
Project website/blog/social media	@provita_ong; <u>www.volandojuntos.org</u>			
Report author(s) and date	Ada Sánchez-Mercado, Lisandro Moran, María Daniela Pineda, Alejandro Díaz-Petit, Génesis Ramírez, Albert Narvaez, Arlene Cardozo-Urdaneta. 3rd May 2023			

1. Project summary

Effective behaviour change campaigns to reduce demand of wildlife in South American countries are limited by heterogeneous quality in design schemes and language barriers that impede the adoption of existing best practices.

We propose to increase the adoption of best practices for such campaigns and their taxonomic and geographic reach by: 1) implementing theory and evidence-based campaigns to reduce demand for two Venezuelan threatened bird species, 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] (<u>Supporting material</u> > <u>References list_IWT-AYR2_IWT102_20230503_file</u>) and included in Appendix I of CITES [2].

YSA is kept as pets by 3 in every 10 people on Macanao, Margarita Island, where misguided perceptions of benefits from human protection and affective attitudes towards parrots drive demand [3,4]. Women are important actors in the illegal YSA trade chain. The absence of fathers, sons, and husbands while on long fishing trips (primary economic activity dominated by men), creates strong emotions of loneliness in wives, mothers, and daughters. Parrots are a frequent tool for managing these emotions [3,4]: they are described "as a part of the family" and are presented as gifts from relatives to alleviate loneliness. Knowledge of parrot biology and concern for their conservation problems is high among Macanao communities, but people with higher educational levels express higher intentions to keep YSA as pets, suggesting that knowledge is used to reinforce misguided empathy, rather than to change behaviour in a way that reduces demand [3,4]. Our behaviour change campaign entitled *Cielo Verde* (*Green Sky*) (Figure 1) will be focused on encouraging, in Macanao communities, participation in outdoor activities as an alternative to supplement the benefits provided by pet parrots (companion and entertainment) [6,7]. We think that if we successfully promote social norms and positive attitudes towards be involved in outdoor activities, as well as spaces and opportunities where people can enjoy their favourite birds, without keeping them captive, we could generate the change we want, in the medium term, reduce the demand for YSA, and in the long term, their illegal trade. Green Sky will add to the Yellow-shouldered Amazon Conservation Program implemented by Provita in the last 32 years. The program includes school-age environmental education activities, and full-time surveillance of natural and artificial nests in the main breeding site of this parrot population (La Chica). The Ecoguardians, a cooperative of local young people recruited, trained, and hired by Provita, have implemented most of these actions in the field and they successfully reduced the nest poaching rate to zero in La Chica in the last 3 years. Green Sky built on years of research to understand parrot trade scope and motivations, but mostly in the high social acceptance of the Yellow-shouldered Amazon Conservation Program among Macanao people, which relates to trust and the long-term commitment of Provita.



Figure 1. Green Sky campaign image. Logo and tagline for the Facebook page and emblematic picture of participants in core activities.

Currently, at least 368 RS are traded per year (most of them suspected wild-caught [5]). This rate is expected to have a high negative impact on the remaining small populations present in Venezuela (< 6,000 individuals [5]). The key actors demanding RS are breeders, who are mostly middle-class professional males, between 30-46 years of age, who profess a deep interest in improving their breeding skills and are motivated by recognition among peers, more than profit [5]. Demand for RS appears to be driven by breeders' belief that maintenance of genetic variability in the captive stock could be more easily achieved by including wild-caught RS [Arlene-Cardozo pers. comm.]. This misguided belief is enhanced by the fact that the closed community of RS expert breeders lacks tools and channels to share expertise with the more inexperienced breeders, particularly across language barriers, perpetuating misguided and unsustainable captive-breeding practices among Venezuelan and international breeders [5]. Our behaviour change campaign, Anidando Futuro (Nesting Future) (Figure 2), will promote in RS's breeders from Venezuela, Brazil and the Iberian node Spain-Portugal, social norms, and positive attitudes towards the adoption of sustainable breeding practices that exclude wildcaught RS [6,7,8]. The campaign will also create spaces (workshops, forums, meetings) where breeders can acquire, discuss, and disseminate these practices among their peers so that they can enjoy their favourite bird, while applying effective and efficient breeding practices [6,7,8]. Nesting Future is part of the holistic conservation approach led by Provita through the Red Siskin Initiative (RSI), which also aims to understand threats to and the ecology and genetics of this species, rescuing, raising and reintroducing red siskin, raising awareness, and ensuring bird friendly habitats. Nesting Future built on years of research developed by Provita and RSI to increase our understanding of how unsustainable harvesting is structured, who is involved, and what their socio-economic motivations are.



Figure 2. Nesting Future campaign image. Logo and tagline for the Facebook page and emblematic posts used in communication activities.

2. Project stakeholders/ partners

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

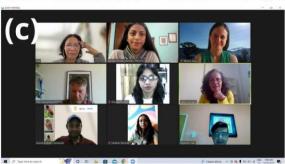
- We collaborated with members of the Red Siskin Specialists and Aviculturists Network (ReSSAN) from Spain, including Francisco Reyes, Herminio Conca, and Roberto Jurado as well as, Hugo Santana from Portugal and Reginaldo Sereno from Brazil, to provide valuable context for our pre-campaign assessment of behavioral and conservation indicators. In addition, they participated as speakers in the discussion forum held as part of the Nesting Future campaign and acted as messengers to promote the campaign's message.
- Herminio Conca, CEO of Aviantecnic, and founder member of the ReSSAN, collaborated with the Red Siskin Conservation Center in Venezuela to create a seed mix specifically for the center's conservation efforts. He requested that we create a label to promote the Nesting Future campaign and highlight the conservation work led by Provita.
- Government bodies including the Mayor of Macanao Peninsula Council and the director of the Environment Office of the Macanao Peninsula Council provided logistic support for implementing the cine forum and restoration activities held as part of the Green Sky's core activities.
- The Rural Finance Foundation (FUNDEFIR) continues to support us in strength and expand working networks with community-based organisations, notably with

"Asomayor" seniors club in Robledal, "Damas Otoñales" senior club in Boca de Pozo, the public library "Dr. Luis Betrán Prieto Figueroa" in Boca de Pozo and the culture house "Maestro Guillermo Hérnandez" in Robledal, which has been key to increase participation and disseminate campaign messages.

- Our partners at IUCN NL Liliana Jaúregui and Marc Hoogeslag helped us to identify networking opportunities across their contacts in South America.
- Our partners at Smithsonian Institution (National Zoo & Conservation Biology Institute), helped us to identify funding opportunities and in early March, we submitted two funding proposals, one for the Rare's call "Insights to Impact" and other for the Solution Search's call "Changing Unsustainable Trade". Our SI partners also helped us to strengthen our networking opportunities, by introducing us to the Silent Forest Group, a consortium of institutions and researchers led by the European Association of Zoo and Aquaria focused on raising awareness and supporting research initiatives to tackle the songbird illegal trade crisis, which lead us to co-organize the Silent Forest side event at the CITES CoP19 in Panama. Finally, Dr. Rodríguez-Clark from SI-CBI reviewed the English translation for the tool 1.
- Leslie Pantin Zoo (LPZ) will be the venue for the forthcoming face-to-face
 Venezuelan Red Siskin's breeder meeting to be developed in June July 2023 as
 part of the Nesting Future campaign. Federico Pantin, President of LPZ is
 renowned and respected among the Venezuelan breeders community, providing
 the trust required to boost participation.









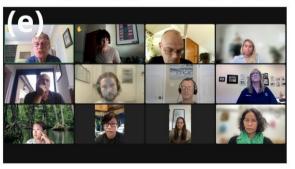


Figure 3. Partnership involvement in the project. (a) Meeting with members of the Red Siskin Specialists and Aviculturists Network (ReSSAN) (b) Meeting with community-based organizations in Macanao (c) Meeting with Liliana Jauregui and Marc Hoogeslag from IUCN - NL. (d) Aviantecnic label featuring Nesting Future campaign. (e) Meeting with the Silent Forest Group.

Additional partners: Several institutional and people, from governmental and private sectors, who are not formally partners in the project have been also involved during this implementation phase (Figure 4):

- Liliana Medina-Toro, communication consultant for the IUCN's Commission of Education and Communication, and Joaquin de la Torre regional director for Latin-American and the Caribbean at International Fund for Animal Welfare (IFAW) helped us to identify opportunities to strengthen our regional collaboration network. As a result, our technical staff are members of the South American node of the IUCN-CEC, and we are exploring including the Red Siskin and the Yellowshouldered Amazon in the Coalition to End Wildlife Trafficking Online.
- José Antonio Díaz Luque, Founder & CEO at Endangered Conservation Consultancy and member of the IUCN Conservation Planning Specialist Group provided us with guidance on developing the campaign's Theory of Change and developing content for the tool 2.
- Nolan Villasmil, Official for Sustainable Development at the Political and Economic Section British Embassy in Caracas visited Macanao in November to learn about the progress of Provita projects, particularly the advance in the Green Sky campaign.
- Private tourism enterprises like Hacienda Macanao and Macanao Trekking, provided venues for the birdwatching activities and advice for group management during interpretative trail activities, respectively. Macanao Trekking also provides advice for the design of the interpretative trail which is a core activity in the Green Sky campaign.
- Rangers from the National Parks Institute were talkers in the one-day workshop (September 2022) we organised to improve capacities on birdwatching best practices and group guiding skills among Ecoguardians and campaign volunteers.
- Marcelo Arancibia, owner of Merlin Interactive, have been kindly supporting us as communications consultant, defining project and campaigns image (logo, tagline), as well as advising us in strategic communications approaches and tools.



Lessons, strengths, or challenges with the partnership

Challenges:

- We have been unable to contact the new board of directors at the Instituto Venezolano de Investigaciones Científicas (IVIC), and as a result, we have not been able to schedule a meeting with them.
- Expanding the involvement of the Red Siskin's breeder community beyond the initial participation of closed collaborators from ReSSAN has been challenging. Spanish and Portuguese breeders have a busy schedule throughout the year with multiple contests, exhibitions, and shows, which limits the time they can allocate to preparing talks or providing testimonials to foster social norms. Moreover, conflicts between authorities and breeders in Venezuela have heightened apprehension among Venezuelan breeders, resulting in low participation in social media and even requests to remove their testimonials from Nesting Future social media, already published, for fear of exposure and potential seizure of their birds as a consequence. To address these challenges, we are providing options for breeders to share testimonials in ways that make them comfortable, such as offering written testimonials as an alternative to public appearances, or even anonymizing testimonials upon request. Additionally, we are collaborating with Enrique Azuaje, manager of the Red Siskin Conservation Center, who is respected among the local Red Siskin's breeders community, to help build trust among Venezuelan breeders.

Strengths:

• We enhanced local empowerment by engaging volunteers and stakeholders in the design and implementation of Green Sky's activities. As a result, people are more than participants and are becoming co-organizators, actively suggesting localities where to do birdwatching (e.g. people is offering their small-scale farming plots as venue),

identifying new community-based organizations that could collaborate with implementation (e.g. public libraries, seniors clubs), and volunteering to providing additional refreshments and food for the activities (e.g. preparing stew). Our success in this endeavor has been largely attributed to our ability to coordinate and integrate with existing recreational initiatives within the community, rather than imposing new agendas. Our activities are now integrated into seniors' clubs' activity programs, school holiday plans, and regional government reforesting programs. This approach has allowed us to incorporate the local perspective in our diagnosis and solutions, streamline logistics for implementation, and reduce costs and risks.

Our local partnerships have facilitated local capacity building through training sessions.
For example, we conducted a bird-watching guide training workshop in collaboration
with the regional offices of the National Parks Institute (INPARQUES) in Macanao, and
received valuable guidance from Trekking Macanao, a private tourism enterprise, during
our tour guide training workshop.

3. Project progress

For this year, we advanced both in activities related to **Output 1** and **Output 2**.

3.1 Progress in carrying out project Activities

Output 1

Campaign design (Activity 1.1): This activity was successfully accomplished by March 2021 and fully reported in the AYR1.

Pilot study to test communication strategy (Activity 1.2): This activity was successfully accomplished by March 2021 and fully reported in the AYR1.

Design of core campaign activities (Activity 1.3): Core activities for both Green Sky and Nesting Future campaigns were successfully designed by March 2021 and fully reported in the AYR1. However, we have adapted the activities based on feedback from satisfaction surveys conducted after each activity. For the Green Sky campaign, we adjusted the implementation schedule to increase the frequency of activities that were reported as highly enjoyable and engaging for participants. Additionally, we tailored the activities to increase participation among the elderly, by creating specific birdwatching routes with shorter walking times. Initially, we planned to create alternative activities and spaces for children, so parents could participate without distraction. However, due to the high level of engagement of children in bird watching, tree planting, and interpretive trails, we decided to include them in these activities alongside their parents (Supporting material > Core activities > Core activities Green Sky).

For the Nesting Future campaign, the main core activity is the cycle of discussion forums, which was initially delivered as a forum chat in WhatsApp. However, the low participation (10 - 20 person/session) made us suspect that the chosen platform and transmission time was not the most engaging for our audience (midday in Europe and early in the morning for Venezuela and Brazil). To overcome this low participation, we created a YouTube channel to rebroadcast the previous sessions, as well as the upcoming ones. We subtitled the session to Spanish or Portuguese accordingly. We used the number of visualisations as a proxy of participation (i.e.

number of people listening to the forum sessions), which is disaggregated by gender, age, and country of connection (Supporting material > Core activities > Core activities Nesting Future).

Measurement of baseline behavioural indicators (Activity 1.4): This activity was partially reported in the AYR1. This activity was successfully accomplished by the end April 2022. Surveys assessing behavioural indicators and self-reported keeping behaviour for the Nesting Future campaign reached 45% of the sampling size established as goal (216 answers out of the targeted 480). For Venezuela, we achieved 65 answers, representing 39% of the sampling size established as the goal. For Brazil's audience we achieved 86 answers (53% of the goal), and for the Iberian node we achieved 63 answers (42% of the goal). For the Green Sky campaign, we achieved 472 answers, which overcome our sampling size established as goal (362 answers), with a similar effort located across treatment (Boca de Pozo 110 answers, Robledal 113,) and control localities (Boca de Río 118 answers, San Francisco 120, Other 11). Post camping survey to measure behavioural indicators will take place between October - December 2023. The difference in sample sizes between the Green Sky and Nesting Future audiences reflects, in part, the effectiveness of face-to-face surveys compared to more indirect online surveys.

Implementation of core and recreational activities (Activity 1.5): For the Green Sky campaign we have implemented seven activities, each one with different sessions: two cine forums (66 participants), one lottery (44 participants), four bird watching events (178 participants), two planting events (63 participants), one birdwatching workshop (19 participants), two interpretive trail guide workshops (43 participants), and one interpretative trail event (24 participants). (Figure 5)

For the Nesting Future campaign, we implemented four sessions of the discussion forum, the first one addressing the challenges and opportunities for collaboration between conservationists and Red Siskin's breeders. The other three sessions have been focused on discussing strategies to manage the aviary using only captive-breed red siskins, and the downside of including wild-caught red siskins in the aviary. As the implementation of the forum is online, we used the number of visualisations of the forum videos in the YouTube Channel of the campaign, as indicator of participation (Figure 6).

Beside core activities, we also implemented communication activities through different channels [7]. We outlined the communication process in four phases: release, conversion, engagement, and change. In the release stage, our objective was to introduce the campaign's objectives and general strategy to the audiences, and familiarize them with the campaign's graphic identity. During the conversion phase, our goal was to capture the attention of the audience and convert them into active participants. In the engagement phase, we focussed on increasing repeat participation in activities and followers on our social media platforms. Lastly, in the change phase, participants become advocates for the desired behavior change and promote the campaign messages (Figure 5, 6).

Measuring changes in participation behaviours (Activity 1.6): All the Green Sky and Nesting Future activities have detailed records of participation. For the Green Sky campaign, we used a registration form which was fulfilled by participants at the beginning of all the activities, detailing participants' residence, gender, and age group. For the Nesting Future campaign, we have records for visualisation (number of times a video has been watched), visualization time, number of impressions (the number of people each video has been shown to) for all the forum sessions implemented, and desegregation by gender and age group. Beside participation, we also measure satisfaction.

To assess satisfaction we implemented a questionnaire consisting of 15 questions that assess how participants felt during each activity, their interest in participating in future activities, as well as their recommendations on how we could improve the experience for future participants.

Measuring satisfaction across online activities is hampering due the low response rate. So, alternatively we use comments and "likes" in Facebook, related to the posts containing online activities (e.g., forum videos in Nesting Future) as a qualitative indicator of satisfaction and engagement (Supplementary material > Core activities > Satisfaction questionnary SPA 20230426).

We have not yet measured empowerment and leadership as we aim to keep a balance between questionnaire length and informative answers. Due questions related to empowerment and leadership at the beginning of the campaign may have a high rate of unanswered questions, we have decided to exclude these questions during the initial stage of the campaign. For Green Sky, we plan to include them in April 2023 once that conversion, and commitment phases have been reached (Supplementary material > Core activities > Satisfaction questionnary SPA 20230426). For Nesting Future, we intend to include satisfaction, empowerment, and leadership questions in the survey measuring post-campaign behavioural changes (October - December 2023), because we observed a higher response rate with these questionnaires compared to the forum sessions. In the meantime, we used comments in social media as qualitative measures of empowerment.

Measuring changes in intermediary behavioural outcomes (Activity 1.7): Intermediary behaviours outcomes includes knowledge, attitudes, perceived social norms, moral norms, and control. Pre-campaign measuring was done in February - April 2022. We plan to measure post-campaign indicators between October – December 2023. So, measures of changes will be included in the final report.

Measuring changes in the number of YSA kept as pets (self-reported behaviour YSA) (Activity 1.8.1): Same status as reported for activity 1.4.

Measuring changes in the number of wild-caught red siskins in captivity in domestic and international facilities (self-reported behaviour RS) (Activity 1.8.2): Same status as reported for activity 1.4.

Measuring changes in nest poaching (direct observed behaviour YSA) (Activity 1.8.3):

From May 2nd to July 20th, 2022, which correspond to the middle of the Yellow-shouldered Amazon's reproductive season, we surveyed two nesting sites in Macanao without surveillance, the Chacaracual Community Conservation Area (CCCA) and La Vieja. Our objectives were to: 1) identify cavity availability, 2) identify active nests, 3) evaluate nest poaching rate. First, we conducted an inventory of tree cavities, following intelligence provided by locals and parrots' vocalizations. We classified the identified tree cavities into two categories based on their potential to be a parrot nest. We considered a cavity as "potential" if the trunk thickness, hole entrance size, cavity width, and depth corresponded to those suitable for the YSA [9,10]. We classified cavities as "unsuitable" if they had a very small entrance mouth, shallow depth, were broken or had cracks, or had a lot of light entering. All cavities, whether suitable or not, were identified with an alphanumeric code. We reviewed the "potential" cavities fortnightly and classified them as "active" if we detected evidence of: 1) parrot eggs, 2) adult parrots' presence, 3) parrot feathers. Potential cavities without any of this evidence, were classified as "inactive". We further defined the following activity categories: 1) "Adults" when adults were found preparing the nest, eggs, or parrot chicks; 2) "Eggs" when parrot eggs were found; 3) "Chicks" when parrot chicks were found; 4) "Poached"; 5) "Predated"; and 6) "Occupied by another species". We considered a nest to have been poached if we found evidence of human activity (e.g. bicycle tracks, footsteps, marks, broken nest base, etc.) (Supporting material > Measuring

changes in YSA nest poaching > Nest poaching monitoring protocol_SPA_20230301). Next

measure of nest poaching will be conducted between April - July 2023.

Measuring changes in trade rate for the Red Siskin (Activity 1.8.4): We implemented the protocol to monitoring open Facebook groups in Venezuela, Spain, Portugal, and Brazil with the aim to: 1) identify general Red Siskin trade for both captive-bred and wild-caught individuals, and 2) evaluate wild-caught trade rate. We identified 48 open Facebook groups using a combination of three types of search terms: 1) the object of study (the name of the species, in both scientific and common names), 2) the activity (aviculture, aviary), and 3) the actor (aviculturist, breeder). We performed various combinations of these search terms in Spanish and Portuguese. For each identified Facebook group, we recorded basic information such as type, status, country, number of members, and main language used. Each group was assigned a unique alphanumeric code. We evaluated the publication frequency for each group and determined whether it was active (with daily publications in the last 10 months) or inactive (with no publications in the last 30 days). For each active group, we recorded each post chronologically, starting with the most recent and moving to the oldest, up to 3 months prior to the current monitoring start date. To differentiate between wild-caught and captive-bred Red Siskin individuals, we used the following criteria: 1) direct information from the post or comments that explicitly state the event involves a wild-caught individual, 2) birds with closed rings or explicitly identified as captive-bred are classified as "captive bred", and 3) phenotypic differences between wild-caught and captive-bred individuals, such as differences in colour uniformity and feather texture. Although we cannot distinguish wild-caught from captive-bred individuals with absolute certainty in online publications, we believe that by defining clear and replicable criteria in our monitoring process, we can capture trade dynamics and compare trends with our baseline data. However, we acknowledge that there may be some laundering of wildcaught individuals in these online groups (Supporting material > Measuring changes in RS online trade > RS online trade protocol_SPA_20220326). Next measure of online trade will be conducted between October - December 2023.

Output 2

Toolkit - Module 1 development (Activity 2.1): Despite some delays in publishing, particularly with the English versions, we are thrilled to announce that the Spanish and English version of the tools 1, 2, and 3 are available through the project website (www.volando juntos.org). Through examples and diagrams the toolkit 1 describes what is a behaviour change campaign, what is behaviour and how to assess it, how to develop a baseline study to understand behaviour and define the audience, and which ethical principles must guide these studies. The toolkit 2 is a multimedia resource (document and workshop tools) describing how to segment the audience, evaluate alternative behaviour, and provides concepts, strategies, and practical advice to build a Theory of Change that integrates both the behavioural change process, and the planning and monitoring process. The toolkit 3 comprises a multimedia resource (document and workshop tools) to develop the strategic communication plan for the behaviour change campaign, including objective definition, communication channels management, strategies for message crafting, prioritising communication tactics, and monitoring strategies. Next steps involve promoting these toolkits to a wider audience, including researchers, NGOs, and the general public, through Provita's and partners website and social media platforms, and other relevant online platforms.

Toolkit - Module 2 development (**Activity 2.2**): A draft of the content of this module has been layout. This product is aimed to be published by July 2023. As for module 1, module 2 was initially planned as a 3-tools module. However, to optimize time and resources, we decided to compile the content in one tool with several resources. The draft of the content includes:

- 1. Why is it important to monitor the campaign?
 - 1.1 Traffic indicators

- 1.2 Alternative behaviour indicators
- 1.3 Socialization network monitoring

Case studies: Pre-campaign indicator monitoring

RECOMMENDATIONS

SUMMARY

- 2. Pre-campaign data analysis
 - 2.1 Data organization
 - 2.2 How to analyse the data
 - 2.3 Adapting the TdC with pre-campaign evidence
 - 2.4 Socializing pre-campaign results

Case studies: Data analysis

RECOMMENDATIONS

SUMMARY

- 3. Identifying implementation partners
 - 3.1 Differences between an implementation partner and a project partner
 - 3.2 Strategies for identifying and prioritizing implementation partners
 - 3.3 Planning communications with your implementation partners

Case studies: Identifying partners

RECOMMENDATIONS

SUMMARY

- 4. Identifying and prioritizing activities
 - 4.1 Strategies for identifying and prioritizing activities
 - 4.2 Prioritization criteria
 - 4.3 Evaluating activity risks during the planning stage

Case studies: Identifying activities

RECOMMENDATIONS

SUMMARY 17

- 5. Activities design
 - 5.1 Principles for designing campaign activities
 - 5.2 Adaptive management of activities

Case studies: Designing activities

RECOMMENDATIONS

SUMMARY

6. Aligning activities with communications and the TdC

Case studies: Aligning activities and TdC

RECOMMENDATIONS

SUMMARY

- 7. Progress indicators
 - 7.1 Reach indicators
 - 7.2 Management indicators
 - 7.3 Intermediate impact indicators

Case studies: Evaluating progress

Toolkit - Module 3 development (Activity 2.3): This activity will start in October - December 2023.

3.2 Progress towards project Outputs

Output 1

1.1 100% of planned core and recreational activities implemented and monitored by 2022 and 2023 (baseline = 0): Activity implementation for the Green Sky campaign have been developed as planned. As described in the section 3.1 > Activity 1.6 & Activity 1.7, all the core activities in the Green Sky campaign have records of participation and satisfaction surveys. For Green Sky, we completed the release - conversion - engagement - change phases in 18 weeks. For Green Sky, the period of launching covered June and July 2022, for which we used 2 videos (Figure 5). After launching, we implemented 1 or 2 activities/month, combining it with messages tailored in our Theory of Change and communication plan. We also developed a one-day workshop covering birdwatching best practices (September 2022) and improved guiding skills in volunteers and Ecoguardians (March 2023) (Figure 5). We think that these increased skills will help communities organize independent outdoor activities and support our way-out and scaling up strategy in other communities. For April - September 2023 we plan to increase the number of activities per month, focus on direct experience activities (e.g., birdwatching, planting) to consolidate the change phase. Activities will be running till September 2023.

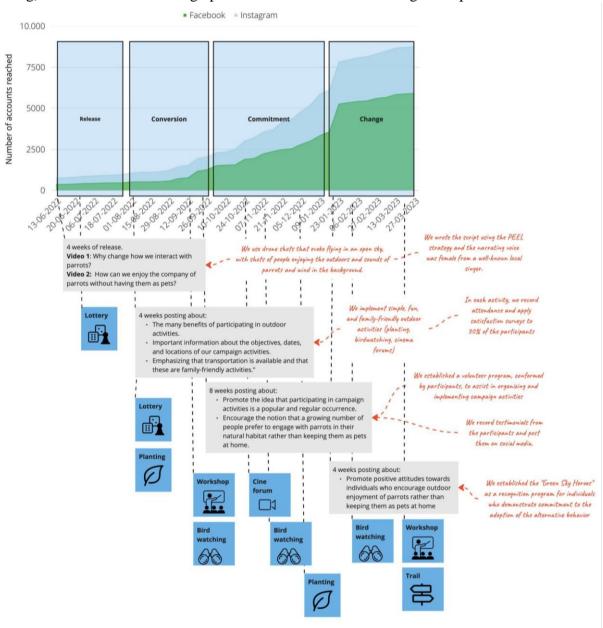


Figure 5. Core and communication activities implemented in the Green Sky campaign. The graph shows the accumulated number of accounts reached in the Facebook and Instagram accounts. The 4 stages in the communication process (release, conversion, commitments, and change) are highlighted in light blue boxes. Core activities are in dark blue boxes, while communication activities are in grey. Key characteristics of the communication activities are in red.

The implementation of activities for the Nesting Future campaign has experienced slight delays due to the busy schedule of the breeders throughout the year. While session 2 and 3 were only delayed by two weeks, session 4 had to be postponed for over 10 weeks because the main speaker was occupied as a juror during the bird contest season in Europe. As described in the section 3.1 > Activity 1.6 & Activity 1.7, we used alternative measures for participation (visualization = number of times a video has been watched) and satisfaction ("likes" related to the posts containing forum videos) due the low *in vivo* attendance and low response rate. All the sessions have visualization and "likes" records.

For Nesting Future, the period of launching covered June and July 2022, for which we used 2 videos (Figure 6). After launching, we implemented 4 online forums sessions, combining it with messages tailored in our Theory of Change [6] and communication plan [7] (Figure 6). In June - July 2023, we plan to develop a hybrid meeting (face-to-face & online) between Venezuelans and Spanish breeders to foster engagement and produce testimonials that could be later used to promote social norms and thus, consolidate the change phase. Activities will be running till September 2023.

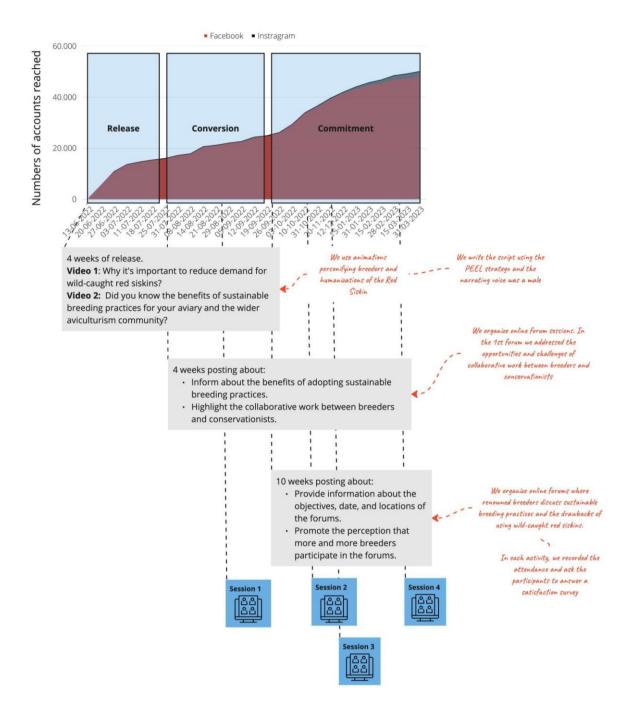
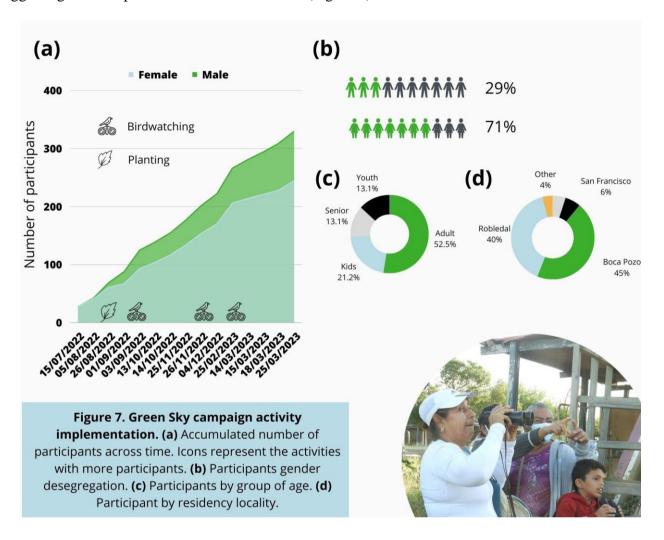


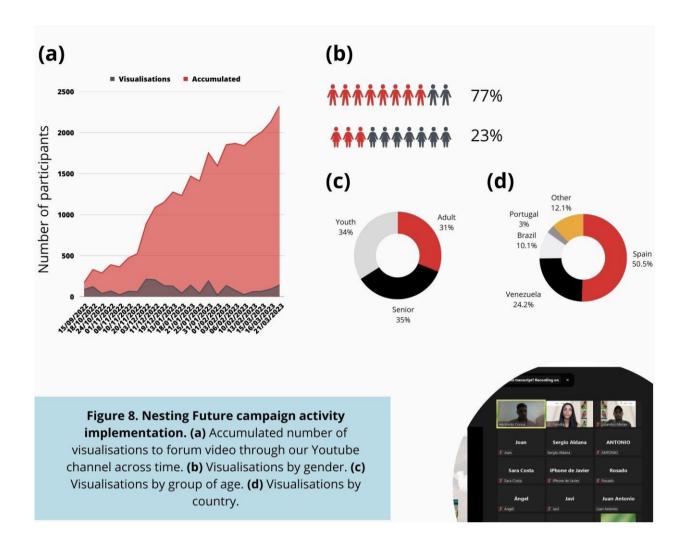
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1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0): We have usefully accomplished this indicator with all the Green Sky and Nesting Future activities with detailed record of participation. Participation in Green Sky activities has sharply increased from 28 adults (all women) in the first activity to 244 women (mean age = 48.4, SD = 17.2) and 85 males (mean age =43.5; SD = 17.6) in the most recent activity. Kids have been enthusiastically attending birdwatching, cine forum, and planting activities (92 kids) and although we do not include them as part of our reaching statistics, their participation have been key for family integration. In total we reached 437 people, of which 329 were adults (3% of the total population in treatment communities

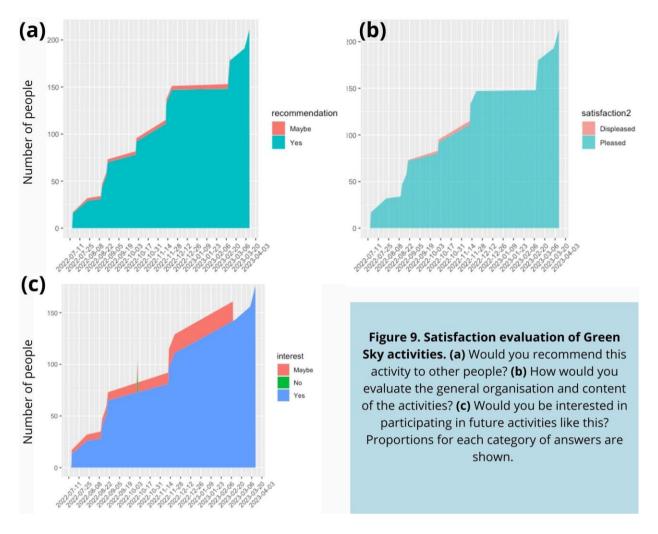
 \sim 12,000 people), mostly women (71%), between 26 – 59 years old (52%). Although people from other communities other than the focal participate in our activities (4%), most participants are residents from the two treatment communities Boca de Pozo (45%) and Robledal (40%), suggesting that no spill over effect has occurred (Figure 7).



For the Nesting Future campaign so far, we have reached a total of 2,198 visualisations of the forum sessions through the YouTube channel, mainly men (77%), in equal proportion of youth (18 - 25 years old), adults (26 - 59 yo), and seniors (>60 yo). Spain was the country with more visualisations (50%), followed by Venezuela (24%) and Brazil (10%). Portugal only accounted for 3% of visualisations, suggesting that more effort should be made to increase participation among Portuguese breeders. For that, we are planning to directly contact Portuguese breeders who are members of ReSAAN through the email list and use our current contacts to broadcast the campaign on local radio. Other countries such as Mexico and Iraq have 12%, suggesting that breeders in our focal countries may have connections with Mexican and Iraqis breeders (Figure 8).



1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%): (Supporting material > Participation & satisfaction indicators – Green Sky Report ENG 20230426). For the Green Sky campaign, we have implemented satisfaction surveys to 217 out of 437 participants, which constitutes 50% of the total participants. Twenty-one percent of participants have attended two or more times to the campaign activities. Participants had a general positive perception of the activities (73%), with 97% affirming they will recommend the activities to other people (Figure 9a), and 98% considering that the activities were well organized (Figure 9b). There was a high interest in participating in forthcoming activities (88%; Figure 9c). Satisfaction, recommendation, and interest steadily increased over the time.



Qualitative evaluation of empowerment and leadership (Figure 10) shows promising results with people feeling more empowered and self-organizing, preparing snacks and meals for activities, and identifying bird watching sites near their homes. We encourage these leadership initiatives by giving an acknowledgement certificate to four participants (<u>Supplementary material > Core activities Green Sky > Green Sky Protagonist acknowledgement certification 2022</u>), which were also promoted by social media to foster social norms.

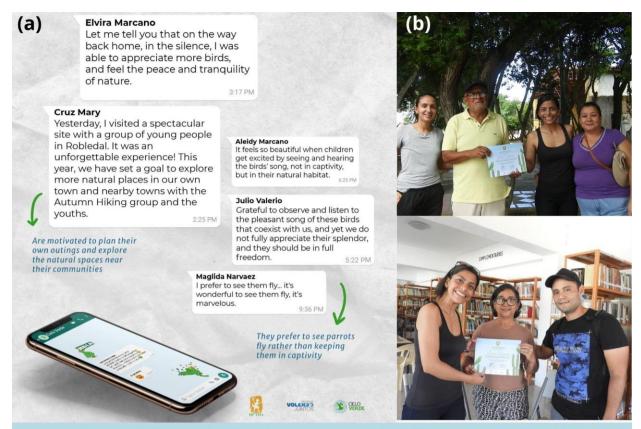


Figure 10. **Qualitative evaluation for empowerment and leadership for the Green Sky campaign. (a)** Social media testimonials. **(b)** The Green Sky Protagonist acknowledgement certification is conferred to individuals who have demonstrated leadership and empowerment in supporting the implementation of activities and campaign messages.

Sadly, for the Nesting Future campaign, the rate of response of satisfaction questionnaires has been much lower, with barely 17 answers (<u>Supporting material</u> > <u>Participation & satisfaction indicators – Nesting Future Report ENG 20230426</u>). So, we used comments and "likes" related to the Facebook posts containing forum videos as a qualitative indicator of satisfaction and engagement. Fifty of the 74 posts published in the Nesting Future Facebook (68%) page were related either with promotion or diffusion of content of the forum sessions (videos, invitations, thank you messages). These posts related to forums reached 68,019 accounts by 31st March, received 869 "likes" which represent 62% of total likes received (1,404). These posts also received 77% of the comments (37 comments / 48 total comments received) and 34% of the share activity (275 times shared / 473 total times shared). Overall, these indicators suggest that audiences find forum content interesting (Figure 11).

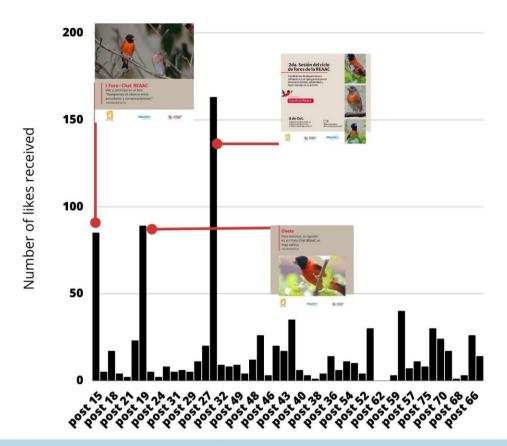


Figure 11. **Evaluation of satisfaction level in online forum of Nesting Future.** Number of "likes" received by the posts published on Facebook related to forum sessions.

Notwithstanding difficulties to get quantitative measure of satisfaction for Nesting Future forums, social media testimonials suggest that people are engaging and eager to collaborate (Figure 12).

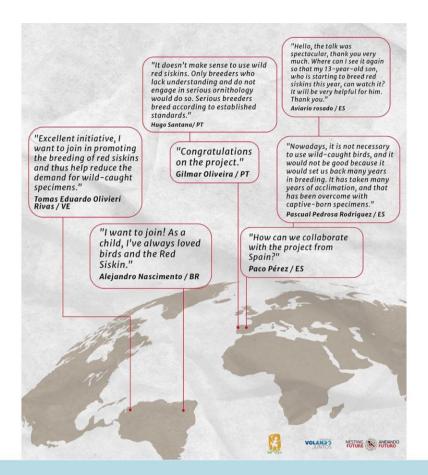


Figure 12. Qualitative evaluation for empowerment and leadership for the Nesting Future campaign. Social media testimonials.

- 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 Nesting Future campaign, we were behind the goal, reaching 45% of the sampling goal (216 answers out of the targeted 480). However, for the Green Sky campaign, we exceeded the sampling goal, with 130% (472 answers out of the targeted 362) (see 3.1 section for details).
- 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. (see 3.1 section for details). Self-reported parrot keeping was significantly different across localities ($X^2 = 10.171$, p<0.1), with San Francisco having higher prevalence (30%) than the other localities (10-20%). The prevalence observed in San Francisco was similar (33%) to those reported by Sanchez Mercado et al 2020 [4]. There were no significant differences across age groups ($X^2 = 0.713$, p >0.1).
- 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. (see 3.1 section for details). There were significant differences in self-reported keeping behaviour across countries ($X^2 = 42.237$, p<0.01). Brazil, Spain, and Portugal have higher prevalence of keeping (50-60%) than Venezuelan breeders

(10%). There were no significant differences across age groups ($X^2 = 8.997$, p >0.1). These levels of self-reporting RS keeping was lower than reported by Cardozo-Urdaneta (personal communication) which was 93% for Venezuelan breeders and 89% for international (18 countries).

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 detected a total of 48 cavities in both localities, 77% of them with potential to become a parrot nest. Of these potential nests, 19% were active either with parrot eggs, or chicks, and only one showed evidence of poaching activity. The poaching prevalence, considering the potential active cavities, was only 3%. This result agrees with the low level of parrot keeping obtained by self-reported demand (Supporting material > Measuring changes in YSA nest poaching > YSA poaching rate - Report) (Figure 13).

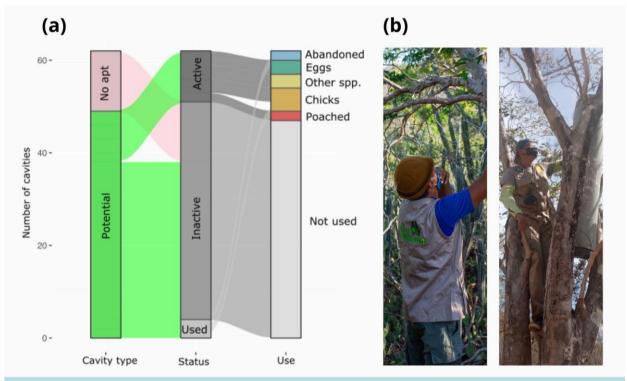


Figure 13. Measuring changes in the Yellow-shouldered Amazon nest poaching in Macanao. (a) Each column represents the variables analysed about cavity type, status, and use conditions. Vertical sizes of the blocks are proportional to the frequency of variable combinations, and so are the widths of the alluvia. **(b)** Ecoguardians during the field work.

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: From February 2nd to May 30th, we detected a total of 998 posts in Venezuela, Brazil, and the Iberian Peninsula (Spain and Portugal). The majority (79%) of the record comes from Spain and Portugal, followed by Brazil (19%), while Venezuela only accounted for less than 1% of the records. Only 3% of the records correspond to potential wild-caught red siskins. The trade of captive-bred individuals comprises mainly hybrids or mutations (58% non-ancestral phenotype), which are mainly kept (41%) or offered (34%), with less demanded (24%) or interchanged (1%) (Supporting material > Measuring changes in RS online trade > RS online trade rate – Report ENG 20230426) (Figure 14).

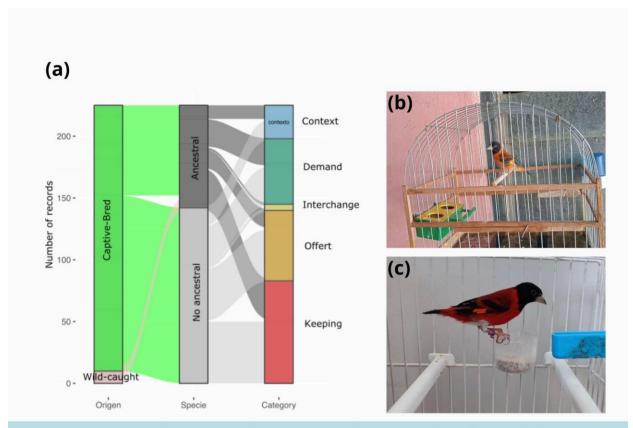


Figure 14. Measuring changes in Red Siskin online trade. (a) Each column represents the variables analysed about bird origin, type and category of activity. Vertical sizes of the blocks are proportional to the frequency of variable combinations, and so are the widths of the alluvia. Examples of presumable wild-caught **(b)** and **(c)** captive bred Red Siskins offered in Facebook group monitored.

Output 2

2.1 The number of visits and downloads of the toolkits reach 1000 by the end of 2022 and 3000 by the end of 2023 (baseline = 0): We were unable to achieve our goal for 2022 partly due to a delay in publishing the tools. The Spanish versions of Tool 1 and Tool 2 were published in September and November 2022 respectively, while Tool 3 was published in March 2023. The English versions of all the tools were also delayed, becoming available in January or March 2023. Our toolkits have been uploaded in several platforms including: our website www.volandojuntos.org, figshare, and ResearchGate. Website traffic reached 1,353 visits, 50% of which with direct entrance to the tools page. Most of the traffic in the web page comes from Venezuela (81%), followed by the United States (3%). For figshare and ResearchGate we have more detailed records of visualisations and downloads by tool (Table 1). The monthly rate of visualization and download, taking into consideration the month in which the tool became available, was higher for tool 3, despite it being the most recently published, closely followed by tool 2. Tool 1 appears to be less popular, and we are planning to implement a more detailed promotion of each tool on our social media accounts, describing their content to boost these rates. (Table 1).

We propose to revise the goal for 2023 to make it more realistic. Highly cited scientific papers in ecology typically reach 1k visualizations after 11 years [11], so it is unlikely that we will reach the proposed target of 3,000 in nine months. If the lowest monthly rate of visualization and download remains constant throughout the year, we could expect approximately 100 visualizations (11.3 visualizations/month * 9 months) and 60 downloads (7.14 downloads/month

* 9 months) by toolkit by December 2023 totalizing 300 visualizations and 180 downloads. So, we propose to change the indicator as follows:

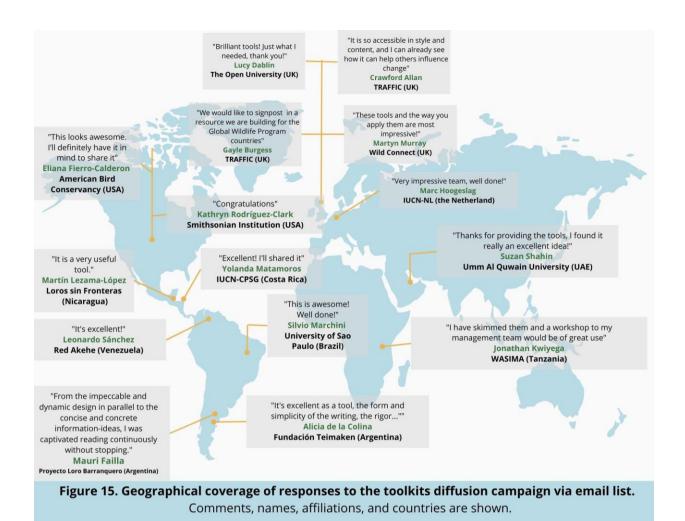
"The total number of visualizations and downloads of the toolkits reach 300 and 180 respectively by December 2023"

Table 1. Visits and downloads of the three toolkits from the module 1, tools for designing behaviour change campaigns to reduce wildlife demand. A visualisation is counted each time someone views a publication summary (such as the title, abstract, and list of authors), clicks on a figure, or views. A download is counted each time someone downloads the full text. The monthly rate of visualization and download, taking into consideration the month in which the tool became available is also included.

Document	Published by	Platform	Visualisation	Downloads
Tool 1 - Understanding your audience and their behaviour	September 2022	Figshare	49	20
		ResearchGate	30	30
Tool 1 - Total			79	50
Tool 1 - Rate			11.29	7.14
Tool 2 - Defining the theory of Change	November 2022	Figshare	106	26
		ResearchGate	20	20
Tool 2 - Total			126	46
Tool 2 - Rate			25.2	9.2
Tool 3 - Strategic communications	March 2023	Figshare	10	11
		ResearchGate	20	20
Tool 3 - Total			30	31
Tool 3 - Rate			30	31

2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0): So far none of our partners have promoted the toolkits because even though the toolkit 1 was published in September 2023 we wait till March, when we have all 3 toolkits in English and Spanish to do the formal launching. All three tools have been uploaded in relevant platforms such as People not Poaching, and Nature for All of the IUCN's Commission for Education and Communication (IUCN-CEC). Provita published a press release in Spanish with the official launching, which was also published on the IUCN-CEC website. We are now in conversation with our partners in the Red Siskin Initiative, Smithsonian Institution, and IUCN-NL to coordinate additional press releases and social media posts.

We have shared the tools with a list of 73 professionals and institutions (<u>Supporting material</u>> <u>Toolkits</u> > <u>Contact list toolkit diffusion ENG 20230417</u>), and the reception has been enthusiastic (Figure 15). As a result of this we are now in conversations with Gayle Burgess, Behaviour Changes Program leader at TRAFFIC, to signpost our tools in a resource they are building for the Global Wildlife Program countries.



We have also promoted the tools through the project accounts in twitter (@Volando_Juntos_), Facebook (https://www.facebook.com/profile.php?id=100078782014380), and Instagram (iniciativa_volando_juntos). The posts related to the toolkits got 12% of the total likes (4 likes / 34 likes received by all the posts), but only 6% of engagements (8 out of 126), and impressions (85 out of 1,333). Although the current number of followers in the Flying Together account is still low (<50 people), we are developing a more targeted communication plan to reach and engage a larger audience of individuals and organizations.

2.3. Altimetric and citation-based metrics of the toolkits increased by 200% by the end of 2022 and 4000% by 2023 (baseline = 0): Currently, there have been no recorded citations for any of the tools. Considering the recent scientific paper related to the topic of illegal wildlife trade by the project leader reached 6-10 citations after 3 years, and taking into account that the tools are reports and not scientific publications, a more realistic expectation would be to obtain up to 2 citations by March 2024. Therefore, we propose to revise the indicator as follows:

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

3.3 Progress towards the project 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). Preliminary results for the precampaign measure were provided in the AYR1. However, we provide here an update using the complete data set and better (we hope!) graphical representation of the results (<u>Supporting material > Pre-campaign measure of behavior indicators - Report</u>). We plan to measure post-campaign indicators between October – December 2023.

We used one statement to evaluate intentions to demand wild-caught RS: "I would like to have a wild-caught Red Siskin in my aviary this year." Participants answered on a Likert scale ranging from "totally disagree" (1) to "totally agree" (5), with a neutral answer "Not sure" (3). In general, intention to acquire wild-caught RS among interviewees was low, with 63 - 89 % of interviewees "highly unlikely" with demand of wild-caught RS (Figure 16a). This result was similar from those reported by Cardozo-Urdaneta et al. [personal communication], who reported that 60% of interviewees (138 answers) across >10 countries, answered "highly unlikely" to the statement: "If I could, I would introduce wild-caught red siskins into my aviary." Intentions to acquire wild-caught RS were more prevalent in Venezuelan (8 %) and Brazilian breeders (12 %), suggesting that South American breeders could share similar social and economic contexts driving demand intentions (Figure 16a). There were significant differences among age groups (X2=26.765, p<0.01), with young adults (18 - 25 yo) having more intention to demand than adults or seniors (Figure 16b).

We shared these finding with our closer collaborators from the ReSSAN and they hypothesize that young and inexperienced breeders tend to be more more experimental and prone to take shortcuts (use wild-caught red siskins) to achieve the contents breeding standards, without realizing that doing so are delaying the so desired standard. To address this, we focus our messages on social norms that emphasize the importance of patience, dedication, and ethics (i.e., "haste makes waste"). Additionally, the higher demand for South American breeders is often due to the perception of captive-bred options being less available or more expensive. To overcome this, our social norms messages promote ethical, rightful, and moral norms (i.e., "it is the right thing to do").

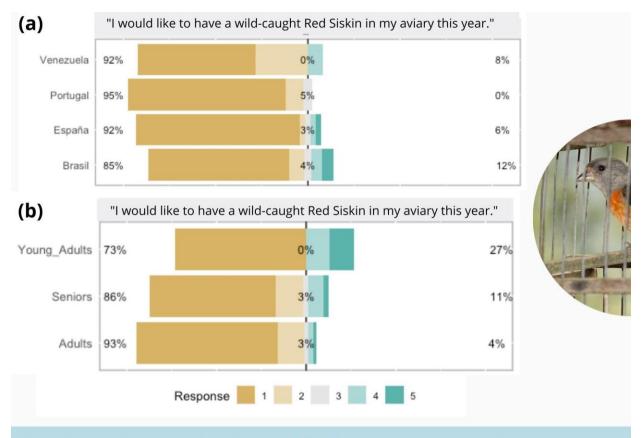


Figure 16. Intentions to acquire wild-caught Red Siskins in the focal audiences disaggregated by: (a) country and (b) age groups. Intentions were measured in a 5-point Liker scale ranging from "totally disagree" (1) to "totally agree" (5), with a neutral answer "Not sure" (3). Darker greens indicate higher demand intentions.

We used one statement to assess the intention to acquire wild-caught YSA: "I would like to acquire a parrot as a pet this year." Participants answered on a Likert scale ranging from "highly disagree" (1) to "highly agree" (5), with a neutral option of "Not sure" (3). In general, intention to acquire parrots as pets was low, with the majority of interviewees answering, "highly disagree" (56%) or "disagree" (16%) with demand behaviour. There were significant differences across localities ($X^2 = 30.666$; p<0.01) in the intentions to demand parrots, being more prevalent in Boca de Pozo (12 - 14%) and San Francisco (8 - 14%) (Figure 17a). Also, there were significant differences among age groups ($X^2 = 27.935$, p<0.01), with youths (18 - 25 yo) having less intentions to demand than young adults, adults, or seniors (Figure 17b).

We shared these findings with a wider group of local volunteers and partners, which led to a better understanding of the social dynamics underlying the apparent decrease in demand intention and nest poaching compared with previous years. We found that during and after the COVID-19 pandemic, young men were increasingly enrolling in fishing trips to earn extra income and stave off boredom during lockdowns. We also observed a rise in juvenile parenthood in Macanao. We hypothesize that both factors diverted the attention of both male and female youth away from the traditional "prank" of nest poaching and pet-keeping. These insights highlight the importance of comparing control and treatment location before and post implementation in order to avoid mistakenly linking outcomes with unrelated causes (i.e. the illusion of causality).



Figure 17. Intentions to acquire parrots in the focal audiences in Macanao communities disaggregated by: **(a)** locality, and **(b)** age groups. Intentions were measured in a 5-point Liker scale ranging from "totally disagree" (1) to "totally agree" (5), with a neutral answer "Not sure" (3). **Darker greens indicate higher demand intentions.**

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. We previously shared preliminary results for the pre-campaign measure in AYR1. However, we now provide a brief update using the complete dataset and incorporating reviewer suggestions to improve clarity in trends and a more appropriate description of patterns, avoiding terms such as 'wrong' or 'right' answers (Supporting material > Pre-campaign measure of behaviour indicators - Report). We plan to measure post-campaign indicators between October and December 2023.

Knowledge level about benefits in adopting alternative behaviour (pre-campaign measure): For the Nesting Future campaign we assessed knowledge levels on sustainable breeding practices to reduce demand for wild-caught red siskins using the question: "How do you think you could contribute, from your personal sphere, to reducing the demand for wild-caught red siskins?" We provided multiple answers describing different alternative behaviours and measured the prevalence of these answers as indicators of knowledge levels. We categorized the answers in the following categories: 1) 6 options describing "Acquire sustainable options", and 2) 3 options describing "Promoting for sustainable breeding practices". In general, the prevalence of knowledge about alternative sustainable captive breeding practices was quite variable across countries, being more prevalent in Spain and Venezuela (90% and 70% respectively) than in Portugal and Brazil (10% and 0 % respectively) (Figure 18a, b). For Green Sky, we measured the level of knowledge about sustainable alternative behaviours that would allow for the enjoyment of parrots without keeping them captive, and the benefits of these alternatives. We used two questions: 1) "What recreational activities do you think would allow you to enjoy and connect with parrots without keeping them as pets?" to measure knowledge about alternatives, and 2) "What benefits do you think you would have if you participated in outdoor activities to

enjoy and connect with parrots?" to assess knowledge about benefits. We provided several answers describing relevant and irrelevant alternative behaviours and benefits and measured the prevalence of relevant answers as an indicator of knowledge. In general, relevant benefits were identified in high proportion across all the locations, suggesting that the audience have a clear understanding of the alternative and their benefits (Figure 18c, d).

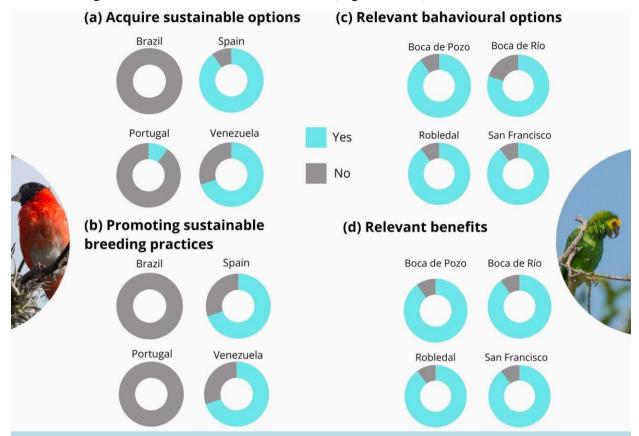
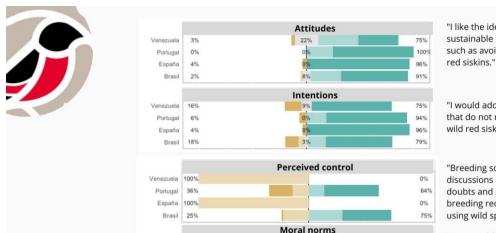


Figure 18. Knowledge level about benefits in adopting alternative behaviour (pre-campaign measure). For the Nesting future campaign (a) and (b) we assessed knowledge levels on sustainable breeding practices. For Green Sky, we measured (c) the level of knowledge about sustainable alternative behaviors that would allow for the enjoyment of parrots without keeping them captive and (d) the benefits of these alternatives.

Intentions, attitudes, social norms, moral norms, and perceived control to adopt the alternative behaviour proposed by the campaigns: For the Nesting Future audience, positive intentions and attitudes towards adoption were prevalent across countries. However, there were significant variations in social and moral norms, as well as perceived control supporting adoption, among countries (X^2 =26.166, p<0.01). Breeders from Portugal and Brazil had higher levels of perceived control, social norms, and moral norms compared to Venezuelan breeders. Spanish breeders shared similar prevalence of social norms with Brazil and Portugal (Figure 19).



Venezuela 100%

España 100%

Portugal

Brasil 6%

Venezuela 100%

50%

Portugal

España

Brasil 23%

"I like the idea of adopting sustainable breeding practices, such as avoiding the use of wild red siskins."

"I would adopt breeding practices that do not require the use of wild red siskins this year."

"Breeding societies allow for discussions and solutions to doubts and problems related to breeding red siskins without using wild specimens."

0%

94%

0%

50%

77%

"It is my obligation towards the aviculture community and the conservation of red siskins to adopt breeding practices that reduce the use of wild specimens in my aviary."

"The larger and more productive breeding societies are composed of breeders who adopt sustainable breeding practices, such as avoiding the use of wild red siskins."

Figure 19. Intermediary behaviours measures, for the Nesting Future's focal audiences (pre-campaign measure). Statements assessing attitudes, intentions, perceived control, moral, and social norms toward the alternative behaviour were measure in a 5-point Liker scale ranging from "totally disagree" (1) to "totally agree" (5), with a neutral answer "Not sure" (3). Darker greens indicate positive trend toward the alternative behaviour.

Social norms

Percentage

Response 2 3 4 5

Overall, in the Green Sky audience positive attitudes towards adoption, high adoption intentions and perceived control were observed across localities. However, there were significant variations in social and moral norms, among localities ($X^2 = 31.506$, p<0.01), with individuals from San Francisco having lower perceptions of social and moral norms supporting the adoption of the alternative behaviour. Also, there were significant differences ($X^2 = 19.617$, p<0.1) in adoption intention across age groups, with young people (18 - 25 yo) less willing to adopt the alternative behaviour (Figure 20).

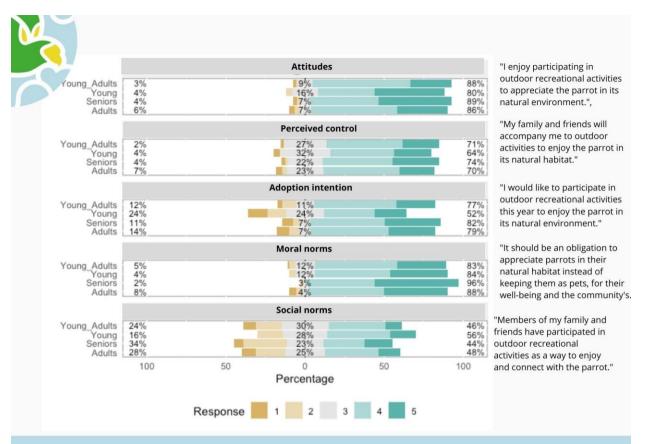


Figure 20. Intermediary behaviours measures for the Green Sky's focal audiences desegregated by age group (precampaign measure). Statements assessing attitudes, intentions, perceived control, moral, and social norms toward the alternative behaviour were measure in a 5-point Liker scale ranging from "totally disagree" (1) to "totally agree" (5), with a neutral answer "Not sure" (3). Darker greens indicate positive trend toward the alternative behaviour.

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): For Green Sky campaign we used three communication channels: Facebook page, Instagram, WhatsApp, local radio, and printed material. The Facebook page is the main communication channel working as a campaign office being the repository of the materials generated (videos, podcasts, infographics, documents, photos, etc.). We also created an Instagram page as a supporting social network. The Instagram page is directly linked to the Facebook page and content is shared simultaneously on both pages. The goal of the Instagram account is to increase user traffic from Instagram to Facebook. With Facebook and Instagram, we were very careful not to promote content outside the audience or mix the campaign's audience with those of Provita or the project. While it is tempting to use the hundreds of thousands of followers of Provita's institutional account to position our campaigns' social media accounts. Provita's accounts have different audiences and communication objectives. We also

use WhatsApp group as a "word of mouth" communication strategy to include participants of the campaign activities. All posts sent through WhatsApp groups were shared through the campaign's Facebook page link, ensuring centralized reach and activity data associated with

For Green Sky by 27th March 2023, we had published 98 messages on Facebook and Instagram. Behaviour drivers considered in our Theory of Change (knowledge, attitudes, social norms, and perceived control) were covered in different proportions. Thirty-one percent of the messages (60 messages) provided information about outdoor activities and their benefits (knowledge), while social norms (52 messages, 27%) and attitudes (56 messages, 29%) were covered in a similar proportion of messages. Messages covering barriers to participation (perceived control) only comprised 13% of the messages. Messages with social norms have been increasingly used

each post.

across time (Figure 21a). In general, published messages reached 5,914 accounts (and 99 followers) on the Facebook page, and 2,843 accounts (and 224 followers) on Instagram (Figure 5). Notably, 83% of the Facebook accounts were from Venezuela, with 72% of these accounts originating from Margarita Island, indicating limited spill over effect in our communication efforts. Furthermore, our WhatsApp group currently has 45 members.

For Nesting Future, we also used a Facebook page and Instagram as main communication channels. By 31st March 2023, we had published 74 messages on Facebook and Instagram mainly focused on increasing the knowledge component of the behaviour drivers. Eighty-nine percent of the messages (66 messages) provided information about sustainable options for captive-breeding and their benefits (knowledge). Messages focus on positive attitudes towards sustainable captive practices and people who adopt then comprise 32% of our messages (24 messages). Messages covering social norms (15 messages) and barriers to participation (perceived control, 13 messages) only comprised 20% and 18% respectively. Messages with social norms have been increasingly used across time (Figure 21b). So far, Nesting Future has primarily relied on providing information as the main lever to influence behaviour. This approach was based on our initial diagnostic of the barriers to adoption, which revealed that a common obstacle was a lack of understanding about sustainable breeding practices, including how to implement them and what benefits they bring. However, we recognize that simply providing knowledge is not enough to change behaviour [12]. Therefore, in the coming months, we plan to double the number of messages aimed at addressing barriers to participation and promoting positive social norms.

In general, published messages for the Nesting Future campaign reached 47,902 accounts (194 followers) on the Facebook page, and 2,124 accounts reached (190 followers) on Instagram (Figure 6). Thirty-seven percent of the Facebook accounts were from Spain, 19% from Venezuela, 11% from Portugal, and 10% from Brazil. The remaining 24% of the audience was distributed among countries as diverse as Argelia, Italy, Argentina, and Greece. Interestingly, in the Instagram account Brazilian breeders represent the majority of reached accounts (52%), followed by Spain (15%), Venezuela (9%), and Portugal (3%), with the remaining 21% distributed in different countries. These findings highlight the significance of utilizing multiple communication channels, as some communities may favour specific social media platforms, as evidenced in Portugal. Furthermore, the limited proportion of reach beyond the target country suggests a constrained spill over effect that could stem from our communication endeavours.

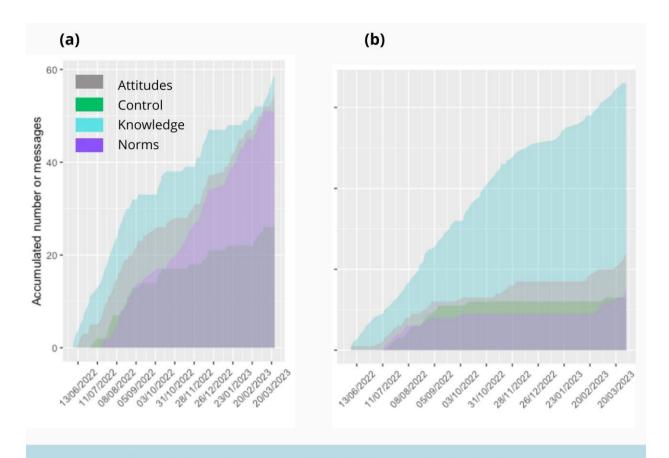


Figure 21. Scope of messages published in the campaigns Facebook page.

Accumulated number of messages categorised by behaviour driver covered. A single message may cover one

or multiple behaviour drivers. (a) Green Sky (b) Nesting Future.

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** = $\mathbf{0}$): 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 (personalized, specific, highlights relevant short-term consequences for the individual, emphasizes social influence, aligns the message with the local identity, use positive feelings that incite action and empowerment, and avoids the use of scientific jargon) 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, our findings revealed a positive but weak correlation between message quality and the number of times shared (cor = 0.23) and comments received (cor = 0.26). This low correlation is expected as most messages have a high-quality level (mean = 6.75; SD = 1.45). As expected, the most popular messages (higher reach) had more likes (cor = 0.73) and times sharing (cor = 0.53) and were also the ones with more comments (cor = 0.47) (Figure 23a). In the next months, we will engage with the audience by responding to comments and sharing user-generated content to increase engagement and foster a sense of community and conduct further analysis to identify the characteristics of the most

For the Nesting Future campaign, our findings revealed a positive but weak correlation between message quality and the number of likes (cor = 0.29), and times the post is shared (cor = 0.21), and a weak negative correlation with the reach (cor = -0.15). This weak negative correlation

successful messages and apply these findings to future posts.

could be explained because the quality of messages was more variable and lower (mean = 5.37; SD = 2.24) in part because most of them were focussed on informing what and when forum sessions and thus, several of the recommendations for framing conservation messages cannot be applied. Interestingly, the most popular messages (higher reach) had not correlated with the number of likes, comments received or times shared (Figure 22b). In the next months, we will increase the quality and consistency of messaging for Nesting Future to improve engagement and reach. Also, we will experiment with different types of content, such as testimonials and infographics, to see if they generate higher engagement.

Data and detailed analysis are in <u>Supporting material</u> > <u>Social media scope and interactions in Green Sky and Nesting Future campaigns - Report ENG 20230426</u>.

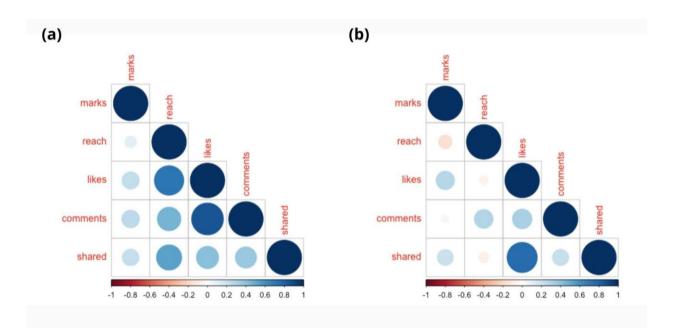


Figure 22. Pearson correlation between interaction indicators and quality message level assigned to each message (marks). **(a)** Green Sky, **(b)** Nesting Future. Quality message level is measured on a scale from 0 to 9, with 9 indicating that all the recommendations for marking conservation messages have been covered.

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: Same status as reported in the section 3.2 > point 1.7.

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): Pre-campaign results were provided in the AYR1. We plan to measure post-campaign indicators between October – December 2023.

3.4 Monitoring of assumptions

Outcome level assumptions

Assumption 1: Activities rely heavily 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: All our partners continue with a strong financial and institutional stability as reported in the AYR1.

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, as described in Section 3.2 'Progress towards project Outputs' and shown in Figure 5 and 6. 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. To address this, we implemented the activities over 2 days to accommodate the large number of participants and distribute them effectively. However, as we keep a relatively small - medium group size/activity (30 - 40 people) to provide a more personalized experience, we are planning to increase the frequency of activities to increase the total number of participants by 10%. For Nesting Future, although the number of visualizations of the forum video 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 is 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 potentially reduce participation.

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

Comments to Assumption 2: This assumption was discussed in the AYR1 and has remained unchanged since then, as no new questionnaires have been implemented during this period.

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

Comments to Assumption 3: See comments to Assumption 1 and 2.

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 has experienced social and political stability in 2022, and this trend is expected to continue throughout 2023. The COVID situation is under control, although we continue to implement biosecurity measures in all face-to-face activities.

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

Comments to Assumption 5: Like what was reported in AYR1, internet and power services have remained stable enough to allow our team in Venezuela to successfully implement online workshops, cine forums, and other activities that heavily rely on internet services. We continue to keep our contingency plan active for providing gas for electricity generators to support activities in Macanao, but so far, it has not been necessary to implement it.

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

Comments to Assumption 6: All the partners we have met so far have been 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 also 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 have gone beyond to make available their communication channels to share our toolkits. They have support us to participate in international events such CITES CoP19 and use our campaigns as study case in a regional workshop in Lima co-organized by TRAFFIC and WCS, piloting the draft CITES guidance on demand-reduction strategies to combat illegal trade in CITES-listed species.

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's reviewer, we have added a new assumption to our monitoring efforts. So far, indicators measuring demand intention, self-reporting demanding behaviour and direct observed behaviour remain low, but we keep monitoring closely. As an additional measure, we plan to include more moral norms statements in our post-campaign questionnaires to gauge the prevalence of moral licensing for demand. For example, statements like "It's okay for me to have [specie name] because I know how to take care of them" may be included."

3.5 Impact: achievement of positive impact on illegal wildlife trade and poverty reduction

Project contribution to a higher-level impact on illegal wildlife trade: We expect to have a high-level impact on illegal wildlife trade by increasing the adoption of best practices for the design, implementation and monitoring of behaviour change campaigns focused on reducing demand of threatened bird species in South America. The effectiveness of behaviour change campaigns in South American countries are limited by heterogeneous quality in design schemes and we want to generate tools and guides based on the best scientific information available that could be accessible and easily adopted by South American organisations. We attempt to do this by developing a 3 modules-toolkit presented for free, online, in Spanish and English. We already delivered the 1st module focused on tools and strategies for designing behaviour changes campaigns for reducing wildlife demand (https://www.volandojuntos.org/herramientas).

Project contribution to a higher-level impact on human development and wellbeing (poverty reduction): We expect to contribute to a high-level impact on human development and wellbeing by providing discussion spaces and tools to increase empowerment and participation among focal audiences as well as access to knowledge and capacities to adopt more sustainable behaviours. Our indicators suggest a high level of participation and satisfaction among the focal audiences in both campaigns. However, more effort should be done to increase participation of Brazilian and Portuguese RS's breeders, likely staying behind in participation due language barriers. Although no quantitative evaluation of empowerment and leadership have been done yet, qualitative indicators (Figure 7, 8) showed that our Green Sky campaign improved community capacities, and people feel more empowered and self-organized to do

birdwatching and interpretative trails. Empowerment and leadership evaluation will start in April 2023 (see section 3.1, Activity 1.6).

4. Thematic focus

Our project aims 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.

This year we have successfully implemented two campaigns, the Green Sky and the Nesting Future carefully designed using scientific evidence available, audience consultation, and following best-practices impulse by Defra's Demand Reduction consortium and TRAFFIC. Outstanding achievements so far:

- We have implemented campaigns core and communication activities under 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, YSA's nest poaching, and RS's online trade). For Green Sky we have two control localities (Boca de Río and San Francisco) and two treatments (Boca de Pozo and Robledal). For Nesting Future, control and treatment samples will be determined at posteriori by splitting the audience between those that know the campaign and those that do not.
- We effectively measured pre-campaign behavioural indicators, such as demand intention, intention to adopt alternative behaviours, attitudes, social norms, and perceived control towards adopting the proposed behaviour. Additionally, we assessed self-reported wild-caught bird keeping, YSA nest poaching prevalence, and RS online trade.
- Campaigns core activities have been implemented as scheduled, with close monitoring
 of participation and satisfaction indicators. This has allowed us to quickly adapt
 activities in response to changing conditions (e.g., online forum platform used) and
 increase participation.
- Campaign communication activities have been closely monitored using standard scope and activity indicators (number of likes, times shared, number of comments). The message scope has been aligned with the Theory of Change and communication plan, and the quality of the message has been thoroughly evaluated based on recommendations for strategic communications.

5. Impact on species in focus

Our project aims 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 ~ 7,000, which might be four times larger than the wild one (2,100 parrots in 2021) [3-4]. By March 2022, before the Green Sky campaign started nest poaching proportion was 3%. We expect that reducing demand could translate in a significant reduction of this already low poaching proportion or at least keep it similarly low.

Similarly, for the RS, currently, at least 368 RS are traded per year (most of them suspected wild-caught) [5]. This rate is expected to have a high negative impact on the remaining small populations present in Venezuela (< 6,000 individuals) [4]. By March 2022 before the Nesting Future campaign was launched, only 3% of the records trading red siskins in Facebook groups

correspond to potential wild-caught birds. We expect that reducing demand could translate in a significant reduction of this already low online trade proportion or at least keep it similarly low.

6. Project support to poverty reduction

The Macanao community, particularly women, are the primary beneficiary of the Green Sky campaign, which so far has brought the following benefits: 1) improved community capacities, related to birdwatching best practices and interpretative trail guiding, which will help communities organize independent outdoor activities and support our way-out and scaling up strategy in other communities; 2) As part of the core activities, we created an interpretive trail in the Chacaracual Community Conservation Area. We will operate it in partnership with Macanao Trekking, a private ecotourism enterprise. We expect that in the short to medium term private tours could be an additional source of income for the people from the communities who are capacitated as guides; 3) Participation has sharply increased from 28 adults (all women) in the first activity to 244 women and 85 males. Also, youth and seniors, before indifferent, are now eagerly participating in campaign activities (see section 3.2). Formal measurement for empowerment, increased leadership started in April 2023 and will be reported in the HYR2.

For the Nesting Future behaviour change campaign, the Venezuelan Red Siskin breeder community. So far, our core (100%) and communicational activities (56%) have been focused on improving technical capacity to effectively manage captive bred populations without the use of wild-caught specimens by providing access to information in Spanish and Portuguese (see section 3.2); 2) We have increased representation of international aviculturist communities in our online discussion forums, with higher participation of Spanish (50%) and Venezuelan (24%) breeders and equal proportion of youth, adults, and seniors (see section 3.2). Formal measurement for empowerment, increased leadership started in April 2023 and will be reported in the HYR2.

7. Gender equality and social inclusion

• Our project staff has good representation from women, with 5 women, including the project leader, and 3 men.

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 .	66% (4 project partnership led by women, 2 men)

- As planned, our activities in Green Sky are family friendly and the participation of kids, although not part of our audience, have been key for family integration and boosting mother participation.
- 23% of people visualizing Nesting Future discussion forum videos are women.

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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.

- 71% of participants in Green Sky activities are women.
- ²/₃ of forum organizers for the Nesting Future campaign are women. However, 100% of guess talkers have been men.

8. Monitoring and evaluation

We use a traffic light scheme to visualize project progress, with green indicating <15% deviation, yellow indicating a deviation between 15 - 30%, and red indicating a critical deviation >30%. As of March 2023, there is no gap between planned and actual progress (deviation 0%), with a progress of 61%. Assuming we continue executing the project at the same pace, we will complete the delivery of products on time by the designated closing date of March 31, 2024.

To monitor expenses, we conduct monthly expense analysis, comparing the approved budget with the actual expenses incurred during the month, and projecting expenses until the end of the respective period (e.g., Q1, Q2, etc.) or funder's fiscal year. Our main challenge in terms of financial progress has been the delayed receipt of planned funds for Q3 and Q4 of 2022, due to Provita's change of bank account and delayed internal bank procedures for account opening. However, despite this delay, we have continued with the activities and covered the expenses. This situation has been resolved, and we are now up to date with the claiming process. Also, due to the rising exchange rate between pounds and dollars, there has been a larger budget available upon fund transfer. To mitigate this, we do daily monitoring of the exchange rate and monthly budget projections to do the required adjustments.

Beside our internal risk analysis matrix (<u>Supporting material</u> > <u>Risk analysis</u> > <u>IWT102 - Project and Activities Risk Provita</u>), we used the IWTCF risk analysis matrix, which allows us to identify the monetary costs associated with each risk and cost-effective mitigation measures (<u>Supporting material</u> > <u>Risk analysis</u> > <u>IWT102 - Project and Activities Risk IWTCF</u>). We have identified 21 risks related to both campaigns, mostly related to logistics (power outages, poor internet connection, etc.) which we mitigated with support of stakeholder logistic capacity. Other potential high-impact risks are described in section 11.

Provita has different strategies to share the M&E amongst staff, partners, and stakeholders. We develop weekly catch-up meetings to check activities progress and plan. We also develop monthly presentations to all the Provita staff with achievements (not activities) reached in that period. So far, we have presented our achievements in 12 internal Provita meetings. We have also shared our progress with our partners as follow:

Partners	Date	Presented by
ReSAAN members	09/09/2022	Ada Sánchez-Mercado
Herminio Conca - CEO Aviantenic	17/11/2022	Lisandro Moran
YSA Conservation Program	29/07/2022	Ada Sánchez-Mercado
British Embassy in Caracas	08/09/2022	Ada Sánchez-Mercado
IUCN-NL	18/10/2022	Ada Sánchez-Mercado
EAZA - Silent Forest	29/07/2022	Ada Sánchez-Mercado

Smithsonian Institution (National Zoo & Conservation Biology Institute)	22/07/2022	Ada Sánchez-Mercado
TRAFFIC Sarah Baker Ferguson	16/09/2022	Ada Sánchez-Mercado
IFAW	01/08/2022	María Daniela Pineda
Macanao Peninsula's Environmental Regional Government agency	02/03/2022	María Daniela Pineda

9. Lessons learnt

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

- 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 (Figures 3 and 4).
- Activities design that allows adaptation. For each activity, we created a structured dossier describing objective, audience, actions, timetable, staff and equipment requirements, necessary local support, and the specific component of behaviour drivers from the Theory of Change that it addressed. 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. Adapting the actions, timetable, and logistics became easier with this structured information. 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. Over the course of the year, there have been changes in the team, with some members leaving and others joining. To facilitate the onboarding process of new staff members and minimize the impact of these changes on the implementation schedule for campaign activities and project products, we prioritize team communication and knowledge sharing. Although each staff member has a clear list of duties related to their respective campaigns, we all stay informed about what the other team members are doing, where the outputs and verification media are, so that if someone is unavailable, another team member can provide support and keep the work moving forward. This strategy also allowed us to utilize individual staff members' unique capabilities across all project activities. By doing so, we ensure that the team functions as a cohesive unit and can effectively adapt to any changes or challenges that may arise.
- Fast tracking of patterns and trends. To ensure timely adaptation of activities, it is crucial to analyse upcoming data quickly and reliably. By automating the analysis using R programming language scripts and markdowns, we have optimized processes and generated reports almost in real-time. This has allowed us to detect errors in our

- poaching and online trade monitoring protocols and make necessary adaptations. Also, we adapted our communication efforts to reach underrepresented sectors, as was the case of Portugal in the nesting Future campaign, or the seniors and youths 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 realized that this approach was time-consuming and that several of these indicators did not provide useful information. For instance, some were empty (e.g., empowerment questions at the beginning of the campaign), not informative (e.g., identity number), or too dynamic (e.g., touches on stickers, replies to stories). Choosing informative, traceable, and straightforward indicators eases the record process, including keeping consistency of indicators across time despite periodic updates and changes in the formats provided by social media platforms, or changes in survey structure.
- Streamlining the content creation process for toolkits. We underestimated the time and effort needed for content creation, layout, and translation of the toolkits. Despite having developed most of the case study content during the design phase, developing background research to fill the theory part of each chapter required the same level of rigor as any scientific paper. Additionally, designing attractive and informative figures, diagrams, and tables often involves several rounds of drafts between the designer and authors. The lack of suitable translators familiar with technical language further contributed to delays and revisions. As a lesson learned, we plan to consolidate the tools for module 2 into a single document with multiple resources to expedite toolkit development while maintaining quality and readability.
- Challenging reaching large and dispersal audiences. Our team finds it challenging to evaluate satisfaction among Nesting Future's large and dispersed audience. Our limited staff and connections in some of the segments identified (Portugal, Brazil) make it difficult to manage such a vast audience effectively. In hindsight, we recognize that it would have been more effective to focus on a single segment, such as Venezuela, and work towards strengthening collaborations with local breeders. Leveraging our partnership with international breeders, we could have facilitated knowledge transfer to Venezuelan breeders on managing their red siskin aviaries using exclusively captive-bred birds. That is, starting small and then expanding to the other segments, instead of covering all of them at once. Focus on one segment would also allow us to implement core activities that allow more direct experiences to our audience (e.g., volunteer in the Red Siskin Conservation Centre in Venezuela) to promote social influence (e.g., renown, prestige) and material incentive (e.g., acknowledge certificate).

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

Reviewer comment	Our reply
"Do consider briefly referring to other Provita actions for these two species in the next Annual report, only in so far as it helps to explain the context in which this project is operating i.e. that you are not relaying on reduced demand for captive birds as the sole strategy for achieving the conservation outcomes"	We have briefly described the holistic conservation approach that Provita has for both species and how the current project built on these experiences (see section 1).
"Do complete the project information Table	We have included our partners in the front

on Page 1 fully, X especially e.g., Project page. Partners and project duration as these may have changed from year to year" We agree with reviewer appreciation that "Progress towards Outcome 0.2: consider classifying answers measurement knowledge changing how you refer to 'wrong' answers level is misleading. We have changed that, so from participants when discussing survey we are now describing our results for results. Based on discussion elsewhere I knowledge indicator as "relevant" / wonder if this is the correct phrase, as when "irrelevant" alternative behaviours and dealing with attitudes there are not benefits identified for the Green Sky data or necessarily 'right' or 'wrong' answers but as a "sustainable" / "unsustainable" rather answers which will or will not assist in alternative behaviour for Red siskin (see conservation outcomes. This may be a section 3.3) translation issue, but the Authors may wish to consider how they explain the changes aspired to in future reports. We have included this assumption "The project gave very thoughtful and (assumption 8) in section 3.4 convincing feedback to the questions raised by the Advisory Group on the possibility of perverse outcomes from the project, especially relating to YSA, whereby the attention on the parrots through the project further exacerbates the interest in keeping them as pets. The project has a good approach

11. Risk Management

and mitigated."

to this but I recommend that this be added as

tendency for this to be realised is monitored

an additional Assumption so that any

Beside our internal risk analysis matrix (<u>Supporting material</u> > <u>Risk analysis</u> > <u>IWT102 - Project and Activities Risk Provita SPA 20230426</u>), we used the IWTCF risk analysis matrix, which allows us to identify the monetary costs associated with each risk and cost-effective mitigation measures (<u>Supporting material</u> > <u>Risk analysis</u> > <u>IWT102 - Project and Activities Risk IWTCF ENG 20230426</u>). We have identified 21 risks related to both campaigns, mostly related to logistics (power outages, poor internet connection, etc.) which we mitigated with support of stakeholder logistic capacity. Potential high-impact risks during this period were:

• Despite a decrease in the exchange rate between pounds and US dollars, we have managed to maintain the project scope through a combination of daily budget control and taking advantage of emerging opportunities. Our daily budget control involves monitoring the exchange rate daily and comparing it with project expenses, calculating the pound equivalent of each expense for the day's operation as well as its equivalent at the rate when the advance amount was transferred. We also looked for emerging opportunities, such as using the amount initially intended for internal salary increases to cover activity expenses during year 2. We did not implement the salary increases

planned for 2022 because we did not achieve the fundraising goal across all of Provita's structure to make this increase equitable in all the organisation and sustainable in time. All these changes required adjustments to budget items, which were requested and approved through change request forms. While the exchange rate fluctuations posed a challenge, our budget management strategies helped us maintain the project scope.

- Staff turnover and restructuring of the project's organizational chart had a significant impact on the project. With Félix Moya leaving the team and Génesis Ramírez and Albert Narváez joining, as well as changes in roles and responsibilities for Arlene Cardozo and Lisandro Moran, we needed to adjust the project's organizational chart. The workload required to develop the toolkits and publications exceeded the Principal Investigator's capacity, who was responsible for leading these products. Therefore, we proposed appointing Arlene Cardozo-Urdaneta, who was acting as the Nesting Future Campaign Coordinator, as a Scientific Communicator to support the development of these key products and their promotion. This new role did not entail a change in her salary but a change in her activities. To cover the Nesting Future Campaign Coordinator position, we appointed Lisandro Moran, who was working as the Nesting Future Campaign Officer. This new appointment implies an increase in Lisandro's salary as he is assuming more responsibilities as coordinator. We also quickly identified Génesis Ramírez as the person who would assume the role of Nesting Future Campaign Officer. We were able to do these changes without an important increase in staff cost because we did not implement the salary increases planned for 2022. We did not achieve the fundraising goal across all Provita's structure to make this increase equitable in all the organization and sustainable in time. Additionally, Félix Moya, our Green Sky Campaign Officer, reduced his dedication to 50% starting October 1st, 2022, due to unexpected personal family situations and then left Provita on December 25th, 2022. To cover the Green Sky Campaign Officer position, we appointed Albert Narvaez with a dedication of 50%. Albert is an educator from Macanao and a former volunteer for the Green Sky campaign. He is supporting core activities implementation on the ground, as well as local stakeholder engagement. To cover the communication-related duties required for the Green Sky Campaign Officer position, we contacted an external services company, Karilexis Ramírez. Karilexis is a freelance designer and community manager, who since February 2022 has been providing her services to design communications products for both campaigns as well as the toolkits. Given her good performance and track record, we expanded her services to cover Green Sky communication activities that used to be performed by Félix. For that reason, we moved the corresponding cost from salary to services. We managed to make all these changes in a harmonious and timely manner. Additionally, each of the incorporated Campaign Officers (Genesis and Albert) received training and special project-specific training, as well as guided follow-up with their supervisors to carry out the activities and ensure the required quality of the products.
- We needed to change our bank account as the account we were using to receive IWTCF funding increased its minimum balance requirement to an impractical level. However, the process of opening a new account took longer than anticipated, causing frustration and stress. As an NGO operating in a high-risk country, the bank subjected us to extensive due diligence, requiring additional documents and conducting thorough verification and validation processes. The prolonged process took nine months to complete, during which Provita had to use its own funds to cover project activities and salaries. This risk was completely unexpected, but we learned a valuable lesson from it. Next time we need to change our bank account, we will request the funds for the quarter in advance to ensure we have better cash flow.

12. Other comments on progress not covered elsewhere

No changes in the project design, or significant difficulties. Risks faced during this period and how we managed was described in section 11.

13. Sustainability and legacy

- Increasing interest and capacity resulting from the project: We were honoured to receive an invitation from the European Association of Zoos and Aquaria (EAZA) to cocoordinate the Silent Forest – Songbird Trade Side Event at the CITES Conference of the Parties in November 2022, held in Panama (CoP19). In addition to providing support in coordination, we presented live on the successes and challenges of our Nesting Future behaviour change campaign in the Silent Forest – Songbird Trade Side Event. Our project was featured in the November edition of the IWT Challenge Fund Newsletter [13], which was timely for the CITES CoP19 (Supporting material > IWT-Newsletter-Nov-2022-Racing-Against-Extinction-IWT102). In September 2022, we shared our case studies for a regional workshop organized by TRAFFIC and WCS held in Lima, Peru, to pilot the draft CITES guidance on demand-reduction strategies to combat illegal trade in CITES-listed species. More recently, in March 2023 we presented our project as a case study in one of the workshops organized by Biodiversity Challenge Funds to provide colleagues with a better understanding of the funding available such that they can promote the funds to relevant stakeholders and potential applicants (Supporting material > Outstanding achievements > IWTCF & FCDO workshop MR 20230314). These were all excellent opportunities for our team to not only disseminate our project results and promote behaviour change materials among target audiences, but also to enhance and strengthen our collaboration network with leading institutions and working groups in the IWT arena.
- **Project's open access plan**: We almost finished the updating process of the Provita' web page which is expected to be launched by October 2023. We created the Flying Together web page in Spanish (www.volandojuntos.org) to make available all resources created in the project. The English version of the Flying Together web page will be available by September 2023. The Flying Together web page will be linked to the Provita's. Alternatively, we shared the toolkits in figshare and ResearchGate platforms. We created a project in Open Science Framework to manage and store files, code, and data associated with the project and currently links the resources we have in figshare, GitHub, and Mendeley.
- Planned exit strategy: We are actively searching for other sources of funding. In March 2023 we submitted a proposal for USD 20,000 to the call Changing Unsustainable Trade for Solution Search. We also submitted a USD 23,635 proposal for the Insights to Impact call for the Rare Center for Behaviour and the Environment. We are expecting a final decision for both proposals by September/October 2023.
- 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 breeders in Venezuela, Spain, Portugal, and Brazil. We anticipate that these newly acquired skills will enable communities to organize 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 way-out 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. Visits to the trail started in April 2023 and will be running bi-monthly. We partnered with Macanao Trekking, a private ecotourism enterprise, to operate it. 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. By diversifying their income sources, we aim to support the community's economic development and sustainability.

14. IWT Challenge Fund identity

During this period, Provita has published four press releases of our project (https://www.volandojuntos.org/news), highlighting Green Sky and Nesting Future launching, our participation in international conferences, and module 1 of toolkits launching. Project aims and campaign activities have been publicised in 11 local newspapers. Our team has been interviewed in two national radio show, and we have held more than a dozen meetings with local and international partners. In all these participation the UK Government's contributions has been explicitly recognized by including the sentence "This project is funded by the UK Government through the Illegal Wildlife Trade Conservation Fund program" and the logo of the UK Aid, DEFRA and IWT have been included in all the presentations. Currently, the IWTCF is the main funder of our project, and it is recognised as a distinct project.

Our project developed an image to boost engagement with our audience (NGO's, researchers in IWT, and funders), which include the webpage, twitter account (@Volando_Juntos_), Instagram (iniciativa_volando_juntos), and Facebook

(<u>https://www.facebook.com/profile.php?id=100078782014380</u>) which are linked to the IWT Challenge Fund/Biodiversity Challenge Funds and #IWTCF are used in all our publications.

15. Safeguarding

as your Safeguarding Policy been updated in the past 12		Yes
months?		
Have any concerns been investigated in the part	st 12 months	No
Does your project have a Safeguarding focal	Yes /Linda Ram	írez / Human Resources
point?	Direction email:	
		5
Has the focal point attended any formal	No	
training in the last 12 months?		
	1 ' 1	D 500/ (4
What proportion (and number) of project staff	have received	Past: 50% (4 persons)
formal training on Safeguarding?		Planned: 100% (8 persons)
Has there been any lessons learnt or challenges	s on Safeguarding	in the past 12 months? Please
ensure no sensitive data is included within resp	onses.	
No		

Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.

Yes. We are scheduling training sessions so all project staff will be trained in this regard by the end of May.

16. Project expenditure

Table 1: Project expenditure during the reporting period (April 2022-March 2023)

Project spend (indicative) since last Annual Report Staff costs	2022/23 Grant (£)	2022/23 Total actual IWT Costs (£)	Varianc e %	Comments (please explain significant variances)
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others				
TOTAL	81.134,00	80.630,90		

Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)

Matched funding secured to	Total matched funding
date	expected by end of project

Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

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

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

Our project aims to reduce the demand for wild-caught birds, specifically the Yellow-shouldered Amazon and the Red Siskin, through behaviour change campaigns. This year, we successfully implemented two campaigns whose design was based on scientific evidence and audience consultation. The Green Sky is focused on promoting among Macanao communities in Venezuela, new ways to enjoy parrots without keeping them captive, and the Nesting Future which promotes the adoption of sustainable captive-breeding practices that avoid the use of wild-caught red siskins.

We have made significant progress, implementing core and communication activities under a before-after-control-impact approach to measure impacts in terms of both behavioural indicators and conservation outputs. Pre-campaign indicators suggest that demand intentions and current extraction level for both species are lower compared with previous year, probably due to social and economic changes after COVID pandemic, so our aim will keep this intentions and actual demand low, while increase prevalence of social norms promoting the adoption of the alternative behaviour proposed by the campaigns. In this way we expect that even if social and economic settings are propitious to demand wild-caught birds, the emerging social norms will prevent an increase of demand.

So far, participation and satisfaction indicators have steadily increased in 10 months of implementation, and we hope that this results in significant changes in perceived social norms. A key element in our core activities has been to enhance community capacities. For example, we have trained birdwatching and interpretive trail guides in Macanao. We hope these newly acquired skills will enable communities to organize independent outdoor activities and create new income sources through ecotourism.

Our project has received recognition from leading institutions in the field. We were invited to co-coordinate the Silent Forest – Songbird Trade Side Event at the CITES Conference of the Parties in November 2022, held in Panama. We also presented our successes and challenges in the Nesting Future behaviour change campaign at the event. Our project was also featured in the November edition of the IWT Challenge Fund Newsletter, timely for the CITES CoP19. We believe that our efforts will not only reduce the demand for wild-caught birds but also pave the way for scaling up these efforts in other communities. By promoting sustainable alternatives and enhancing community capacities, we aim to contribute to the conservation of these endangered species and support the economic development and sustainability of local communities.

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	Supporting material > Outstanding achievements > Nesting Future launch video	Nesting Future campaign launching, Venezuela Credits: Flying Together team	@provita_ong #ProgramasProvita @Volando Juntos	Yes

	1_ENG_20230414. mp4			
Video	Supporting material > Outstanding achievements > Green Sky launch video 1_ENG_LR.mp4	Green Sky campaign launching, Venezuela Credits: Flying Together team	@provita_ong #ProgramasProvita @Volando Juntos	Yes
Video	Supporting material > Outstanding achievements > Message 66 Green Sky_ENG.mp4	Green Sky Protagonists promotion video, Venezuela Credits: Karelixis Ramírez	@provita_ong #ProgramasProvita @Volando Juntos	Yes
Video	Supporting material > Outstanding achievements > Message 67 Green Sky_ENG.mp4	Green Sky Protagonists promotion video, Venezuela Credits: Karelixis Ramírez	@provita_ong #ProgramasProvita @Volando Juntos	Yes
Photo	Supporting material > Outstanding achievements > 20221125_KR_IW T_Hacienda Macanao_BirdWat ching_52.JPG	Bird Watching at the Macanao Hacienda, Venezuela Credits: Karelexis Ramírez	@provita_ong #ProgramasProvita @Volando Juntos	Yes
Photo	Supporting material > Outstanding achievements > 20221126_KR_IW T_HaciendaMacan ao_BirdWatching_ 51.JPG	Bird Watching at the Macanao Hacienda, Venezuela Credits: Karelexis Ramírez	@provita_ong #ProgramasProvita @Volando Juntos	Yes

Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	ment of good practices for demand- ange campaigns and increase their hic scope.	We expect to have a high-level impact on illegal wildlife trade by increasing the adoption of best practices for the design, implementation, and monitoring of behaviour change campaigns focused on reducing the demand for threatened bird species in South America. The first module - with three toolkits - is available online at www.volandojuntos.org (evidenced in section 3.1 of the report). Our campaigns have successfully enhanced community capacities by conducting workshops on relevant topics for each audience, such as birdwatching and interpretive trail guides in Macanao and sustainable captive-bred management for breeders. As part of our Green Sky campaign, we also established an interpretive trail in the Chacaracual Community Conservation Area. We expect that, in the short to medium term, the trail will provide an additional source of income for the people of Macanao (evidence in section 3.1 of the report)	
Outcome Systematic demand reduction campaigns lead to a reduction in illegal wild bird trade,	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.	Nesting Future - Red Siskin: Intention to acquire wild-caught RS among interviewees was low, with 63 - 89 percent of interviewees "highly unlikely" with demand of wild-caught RS. Intentions to acquire wild-caught RS were more prevalent in Venezuelan (8 %) and Brazilian breeders (12%). There were significant differences among age groups (X2 = 26.765, p<0.01), with young adults (18 - 25 yo) having more intention to demand than adults or seniors. Evidence provided in section 3.3 of the report. Green Sky- Yellow-shouldered Amazon: Intention to acquire parrots as pets was low, with the majority of interviewees answering, "highly disagree" (56%) or "disagree" (16%) with demand behaviour. There were significant differences across localities (X2 = 30.666; p<0.01) being more prevalent in Boca de Pozo (12 - 14%) and San Francisco (8 - 14%). There were significant differences among age groups (X2 = 27.935, p<0.01), with youths (18 - 25 yo) having less intentions to demand than young adults, adults, or seniors. Evidence provided in section 3.3 of the report.	Post campaign measure will be developed between September - November 2023
available for the region.	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.	Nesting Future: Prevalence of knowledge about alternative sustainable captive breeding practices was more prevalent in Spain and Venezuela (90% and 70% respectively) than in Portugal and Brazil (10% and 0 % respectively). Positive intentions and attitudes towards adoption were prevalent (>70%) in all the countries. There were significant variations in social and moral norms, as well as perceived control supporting adoption, among countries (X2 = 26.166, p<0.01), with breeders from Portugal and Brazil with higher perceived control, social norms, and moral norms than Venezuelans. Evidence provided in section 3.3 of the report. Green Sky: Relevant benefits were known in high proportion (~90%) across all the locations. High prevalence of positive attitudes towards adoption and perceived control were observed across localities (>70%). However, there were significant variations in social and moral norms, among localities (X2 = 31.506, p<0.01), with individuals from San Francisco having lower perceptions of social and moral norms. Also, there were significant differences (X2 = 19.617, p<0.1) in adoption intention across age groups, with young people (18 - 25 yo) less willing to adopt the alternative behaviour. Evidence provided in section 3.3 of the report.	Post campaign measure will be developed between September - November 2023

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).	Nesting Future (evidence provided in section 3.3 of the report): 74 messages published on Facebook and Instagram. 47,902 accounts reached (194 followers) on Facebook page; 2,124 accounts reached (190 followers) on Instagram. Messages covering knowledge = 89% (66 messages); attitudes = 32% (24 messages); social norms = 20% (15 messages); perceived control = 18% (13 messages). 37% of the Facebook accounts reached were from Spain, 19% from Venezuela, 11% from Portugal, and 10% from Brazil. In Instagram accounts Brazilian breeders represent 52%, followed by Spain (15%), Venezuela (9%), and Portugal (3%). Green Sky (evidence provided in section 3.3 of the report): 98 messages published on Facebook and Instagram. 5,914 accounts reached (and 99 followers) on Facebook; 2,843 accounts reached (and 224 followers) on Instagram. Messages covering knowledge = 31% of the messages (60 messages); social norms = 27% (52 messages); attitudes = 29% (56 messages); perceived control = 13% (messages). 83% of the Facebook accounts reached were from Venezuela, with 72% of these accounts originating from Margarita Island, indicating limited spill over effect in our communication efforts.	In the coming months, we plan to double the number of messages aimed at addressing barriers to participation and promoting positive social norms. We will maintain both channels (Facebook and Instagram), as some communities may favor specific social media platforms, as evidenced in Portugal.
posted in social media (Facebook, Twitter, Instagram and WhatsApp) in 2022 and 2023 (YSA baseline = 50%; 750 likes/1,500 people by	Nesting Future (evidence provided in section 3.3 of the report): There was a positive but weak correlation between message quality and the number of likes (cor = 0.29), and times the post is shared (cor = 0.21), and a weak negative correlation with the reach (cor = -0.15). This weak negative correlation could be explained because the quality of messages was more variable and lower (mean = 5.37; SD = 2.24). The most popular messages (higher reach) had not correlated with the number of likes, comments received or times shared. Green Sky (evidence provided in section 3.3 of the report): There was a positive but weak correlation between message quality and the number of times shared (cor = 0.23) and comments received (cor = 0.26). Most messages have a high-quality level (mean = 6.75; SD = 1.45). the most popular messages (higher reach) had more likes (cor = 0.73) and times sharing (cor = 0.53), and were also the one with more comments (cor = 0.47).	In the next months, we will: Increase the quality and consistency of messaging for Nesting Future to improve engagement and reach. Conduct further analysis to identify the characteristics of the most successful messages in Green Sky and apply these findings to future posts. Experiment with different types of content, such as testimonials and infographics, to see if they generate higher engagement. Engage with the audience by responding to comments and sharing user-generated content to increase engagement and foster a sense of community
rate in surveilled nest sites (baseline = 5 - 10% in the last 5 years) and RS trade rate (368 individuals/year by	Green Sky (evidence provided in section 3.2 of the report): We detected a total of 48 cavities in two nesting sites in Macanao without surveillance, the Chacaracual Community Conservation Area (CCCA) and La Vieja. 77% of them with potential to become a parrot nest. Of these potential nests, 19% were active either with parrot eggs, or chicks, and only one showed evidence of poaching activity. The poaching prevalence, considering the potential active cavities, was only 3%.	Next survey will develop during April - June 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).	Nesting Future (evidence provided in section 3.2 of the report): We monitored 48 open Facebook groups in Venezuela, Spain, Portugal, and Brazil. We detected a total of 998 posts. The majority (79%) of the record comes from Spain and Portugal, followed by Brazil (19%), and Venezuela (1%). Only 3% of the records correspond to potential wild-caught red siskins.	Next online survey will develop during October-December 2023
Output 1. Reduce-demand behaviour change campaigns for the two focal species designed, implemented and evaluated using best practices, behaviour	1.1 100% of planned core and recreational activities implemented and monitored by 2022 and 2023 (baseline = 0).	Green Sky (evidence provided in section 3.1 and 3.2 of the report): We have implemented seven activities in different sessions: two cine forums, one lottery, four bird watching events, two planting events, one birdwatching workshop, two interpretive trail guide workshops, and one interpretative trail event. All the activities have detailed records of participation desegregated by gender and age group. We have implemented satisfaction surveys to 50% of participants (217 out of 437 participants). Nesting Future (evidence provided in section 3.1 and 3.2 of the report): We implemented 4 online forums sessions. All the online sessions have detailed records of visualization (as proxy of participation) desegregated by gender and age group. Satisfaction surveys only have been answered by 17 people, so as an alternative indicator of satisfaction we compared the number of "likes" and comments of posts related to forum sessions with the total likes and comments received. Posts related to forums received 62% of total likes received (869 likes / 1,404 total likes), 77% of the comments (37 comments / 48 total comments received), and 34% of the share activity (275 times shared / 473 total times shared).	For Green Sky we plan to increase the number of activities per month, focus on direct experience activities (e.g. birdwatching, planting) to consolidate the change phase. Activities will be running till September 2023. For Nesting Future, we plan to develop a hybrid meeting (face-toface & online) between Venezuelans and Spanish breeders in June - July 2023, to foster engagement and produce testimonials that could be later used to promote social norms and thus, consolidate the change phase. Activities will be running till September 2023.
theory and ground evidence.	1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0).	adults (all women) in the first activity to 244 women (mean age = 48.4, SD = 17.2) and 85 males (mean age = 43.5; SD = 17.6) in the most recent activity. In these 10 months we reached 437 a total of people, of which 329 were adults (3% of the total population in treatment communities), mostly women (71%), between 26 – 59 years old (52%). Most participants are residents from the two treatment communities Boca de Pozo (45%) and Robledal (40%), suggesting that no spill over effect has occurred. Nesting Future (evidence provided in section 3.1 and 3.2 of the report): We have reached a total of 2,198 visualisations of the forum sessions (main core activity), mainly men (77%), in equal proportion of youth (18 - 25).	More effort should be made to increase participation among Portuguese breeders. For that, we are planning to directly contact Portuguese breeders who are members of the Red Siskin Specialists and Aviculturists Network (ReSAAN) through the email list and use our current contacts to broadcast the campaign on local radio.

1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%).	Green Sky (evidence provided in section 3.2 of the report): We have implemented satisfaction surveys to 217 out of 437 participants, which constitutes 50% of the total participants. Qualitative empowerment evaluation suggests increased leadership and empowerment perception. Qualitative evaluation of empowerment and leadership shows promising results with people feeling more empowered and self-organizing, preparing snacks and meals for activities and identifying bird watching sites near their homes. Nesting Future (evidence provided in section 3.2 of the report): Satisfaction surveys have been answered only by 17 people. Posts related to forums received 62% of total likes received (869 likes / 1,404 total likes), 77% of the comments (37 comments / 48 total comments received), and 34% of the share activity (275 times shared / 473 total times shared). Qualitative evaluation of empowerment and leadership suggest that people are engaging and eager to collaborate and share campaign messages.	We have decided to exclude questions related to empowerment and leadership at the beginning of the campaign because it may have a high rate of unanswered questions. We plan to include empowerment and leadership questions in the satisfaction questionnaire in April 2023 once that conversion, and commitment phases have been reached. For Nesting Future we intend to include satisfaction, empowerment, and leadership questions in the survey measuring post-campaign behavioural changes that will be conducted in October - December 2023. This is because we observed a higher response rate with these questionnaires compared to the forum sessions.
measure intermediary behavioural indicators reach 80 -100% of the sampling size established by the power analysis in each focal	Green Sky (evidence provided in section 3.1 and 3.2 of the report): We exceeded the sampling goal, with 130% (472 answers out of the targeted 362). Similar sampling effort was located across treatment (Boca de Pozo 110 answers, Robledal 113,) and control localities (Boca de Río 118 answers, San Francisco 120, Other 11). Nesting Future (evidence provided in section 3.1 and 3.2 of the report): We were behind the goal reaching 45% of the sampling goal (216 answers out of the targeted 480) distributed as follow: Venezuela, reach 39% of the established sampling size, Brazil 53% and Iberian node (Spain and Portugal) 42% of the goal.	Post camping survey to measure behavioural indicators will take place between October - December 2023.
behaviour) reach 80 -100% of the sampling size established by the	Number of surveys assessing self-reported keeping behaviour has the same status as reported in the indicator 1.4. (see 3.1 section for details). Self-reported parrot keeping was significantly different across localities ($X2 = 10.171$, p<0.1), with San Francisco having higher prevalence (30%) than the other localities (10-20%). There were no significant differences across age groups ($X2 = 0.713$, p >0.1) (see 3.2 section for details).	Post camping survey to measure self- reported keeping behaviour will take place between October - December 2023.

domestic and international facilities (self-reported behaviour), reach 80 - 100% of the sampling size		Number of surveys assessing self-reported keeping behaviour has the same status as reported in the indicator 1.4. (see 3.1 section for details). Self-reported Red Siskin keeping was significantly different across countries (X2 = 42.237, p<0.01), with Brazil, Spain, and Portugal having higher prevalence of keeping (50.60%) than Venezuelan breeders (10%). There	Post camping survey to measure self- reported keeping behaviour will take place between October - December 2023.
		The poaching prevalence in two nesting sites without surveillance (the Chacaracual Community Conservation Area (CCCA) and La Vieja), considering the potential active cavities, was only 3%. This result agrees with the low level of parrot keeping obtained by self-reported demand.	Next measure of nest poaching will be conducted between May - July 2023.
			Next measure of online trade will be conducted between October - December 2023.
	design, including development of the ience segmentation and messages	This activity was successfully accomplished by March 2021 and fully reported in the AYR1.	No future actions planned for next period.
Activity 1.2 Pilot study	to test communication strategy.	This activity was successfully accomplished by March 2021 and fully reported in the AYR1.	No future actions planned for next period.
Activity 1.3 Design of o	, 0	Land College was to the AVDA Harrison and State and a destad and Conservation for the above to the	Review satisfaction surveys and social activity to inform activities adaptation.
Activity 1.4 Measurem	ent of baseline behaviour indicators.	This activity was successfully accomplished by the end April 2022. See detail in the indicator 1.4 and section 3.2 of the report.	Next measure of online trade will be conducted between October - December 2023.

Green Sky (evidence provided in section 3.1 and 3.2 of the report): Activities implementation have been developed as planned. After launching (June and July 2022), we have implemented 1 or 2 activities/month (see indicator 1.1 for details), combining it with messages in the campaign social media tailored in the Theory of Change. Nesting Future (evidence provided in section 3.1 and 3.2 of the report): Activities implementation has experienced slight delays due to the busy schedule of the breeders throughout the year. Session 1 was implemented as scheduled, but session 2 and 3 were delayed by two weeks, and session 4 had to be postponed for over 10 weeks.	Activities will be running till September 2023.
their interest in participating in future activities, as well as their recommendations on how we could improve the experience for future participants. Green Sky (evidence provided in section 3.1 and 3.2 of the report): The questionnaire has been applied to 100% of activities implemented with 50% of participants answering it. We plan to include empowerment, and leadership questions in the satisfaction questionnaire in April 2023. Nesting Future (evidence provided in section 3.1 and 3.2 of the report): The questionnaire has been applied to 100% of activities implemented, but only 17 people have answered. We intend to include satisfaction,	Green Sky: We will include empowerment, and leadership questions in the satisfaction questionnaire in April 2023. Nesting Future: We will include satisfaction, empowerment, and leadership questions in the survey measuring post-campaign behavioural changes (October - December 2023).
	We plan to measure post-campaign indicators between October – December 2023. So, measures of changes will be included in the final report.
Same status as reported for activity 1.4.	Same status as reported for activity 1.4.
Same status as reported for activity 1.4.	Same status as reported for activity 1.4.
From May 2nd to July 20th, 2022, which corresponds to the middle of the Yellow-shouldered Amazon's reproductive season, we surveyed two nesting sites in Macanao without surveillance, the Chacaracual Community Conservation Area (CCCA) and La Vieja.	Next measure of nest poaching will be conducted between April - July 2023.
We implemented the protocol to monitor open Facebook groups in Venezuela, Spain, Portugal, and Brazil and identified. From February 2nd to May 30th, we monitored the 48 open Facebook groups identified and detected	We will update the search of groups, including extensive search in Portuguese and repeat the monitoring between October - December 2023.
	developed as planned. After launching (June and July 2022), we have implemented 1 or 2 activities/month (see indicator 1.1 for details), combining it with messages in the campaign social media tailored in the Theory of Change. Nesting Future (evidence provided in section 3.1 and 3.2 of the report): Activities implementation has experienced slight delays due to the busy schedule of the breeders throughout the year. Session 1 was implemented as scheduled, but session 2 and 3 were delayed by two weeks, and session 4 had to be postponed for over 10 weeks. We developed a questionnaire consisting of 15 questions that assess how participants felt during each activity, their interest in participating in future activities, as well as their recommendations on how we could improve the experience for future participants. Green Sky (evidence provided in section 3.1 and 3.2 of the report): The questionnaire has been applied to 100% of activities implemented with 50% of participants answering it. We plan to include empowerment, and leadership questions in the satisfaction questionnaire in April 2023. Nesting Future (evidence provided in section 3.1 and 3.2 of the report): The questionnaire has been applied to 100% of activities implemented, but only 17 people have answered. We intend to include satisfaction, empowerment, and leadership questions in the survey measuring post-campaign behavioural changes (October - December 2023), because we observed a higher response rate with these questionnaires compared to the forum sessions. Intermediary behaviours outcomes include knowledge, attitudes, perceived social norms, moral norms, and control. Pre-campaign measuring was done in February - April 2022. Same status as reported for activity 1.4. From May 2nd to July 20th, 2022, which corresponds to the middle of the Yellow-shouldered Amazon's reproductive season, we surveyed two nesting sites in Macanao without surveillance, the Chacaracual Community Conservation Area (CCCA) and La Vieja. We implemented the protocol to monitor

	2.1 The number of visits and downloads of the too kits reach 1000 by the end of 2022 and 3000 by the end of 2023 (baseline = 0).	We were unable to achieve our goal for 2022 partly due to a delay in publishing the tools. We got a total of 235 visualizations and 127 downloads of the 3 toolkits, at a rate of 11 - 30 visualization/month and 7 - 30 downloads/month.	We propose to revise the goal for 2023 to make it more realistic. So, we propose to change the indicator as follows: "The total number of visualizations and downloads of the too kits reach 300 and 180 respectively by December 2023"
robust best practice demand-reduction behaviour change campaigns freely	2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0).	The 3 toolskits from module 1 are uploaded in relevant platforms like People not Poaching, Nature for All (IUCN-CEC). We have shared the tools with a list of 73 professionals and institutions across the globe. The posts related to the toolkits promoted through Flying Together Initiative social media got 12% of the total I kes (4 likes / 34 likes received by all the posts), but only 6% of engagements (8 out of 126), and impressions (85 out of 1,333).	We are developing a more targeted communication plan to reach and engage a larger audience of individuals and organizations.
	2.3. Altmetric and citation-based metrics of the toolkits increased by 200% by the end of 2022 and 4000% by 2023 (baseline = 0).	Currently, there have been no recorded citations for any of the tools.	Taking into account that the tools are reports and not scientific publications, a more realistic expectation would be to obtain up to 2 citations by March 2024. Therefore, we propose to revise the indicator as follows: "Citation-based metrics of the toolkits reflect up to 2 citations by March 2024 (baseline 2022 = 0)."
Activity 2.1 Toolkit - M	odule 1 development.	This activity has been completed. We are thrilled to announce that the Spanish and English version of the tools 1, 2, and 3 are available through the project website (www.volando juntos.org).	Next steps involve promoting these too kits to a wider audience, including researchers, NGOs, and the general public, through Provita's and partners website and social media platforms, and other relevant online platforms.
Activity 2.2 Toolkit - M	odule 2 development.	A draft of the content of this module has been layout.	This product is aimed to be published by July 2023.
Activity 2.3 Toolkit - Module 3 development.		This activity will start in October - December 2023.	

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 dev	npact: Advance in the development of good practices for demand-reduction behavior change campaigns and increase their taxonomic and geographic scope. O.1 Intentions to acquire wild-caught birds in focal							
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.	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. 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	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	- 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 biased 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 number of visits and downloads of the toolkits reach 1000 by the end of 2022 and 3000 by the end of 2023 (baseline = 0). 2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0). 2.3 Altmetric and citation-based metrics of the toolkits increased by 200% by the end of 2022 and 4000% by 2023 (baseline = 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.

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 Indicators

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	Disaggregatio n	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, 47,902 accounts reached. Green Sky= 98 post, 5,914 accounts reached.		Nesting Future = 74 posts, 47,902 accounts reached. Green Sky= 98 post, 5,914 accounts reached.	220 posts
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 = 3 English = 3 Total = 3	0	3	0	3	5
IWTCF05	Number of people reached with behaviour change messaging	Number of participants in the campaign core activities	People	Campaigns	0	Green Sky = 329 were adults (71% women)	0	Green Sky = 329 were adults (71% women)	500 people
		Number of visualizations of	Visualizations	Campaign	0	Nesting Future = 2,198	0	Nesting Future =	3,000

IWTCF Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with IWTCF Standard Indicators	Units	Disaggregatio n	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
		videos depicting campaign core activities				visualisations (77% men)		2,198 visualisati ons (77%	
		W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						men)	

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 behavior. Module 1 Tool 1. Behavior 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.2107 8652	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.org/ files/ugd/29a284 f4b034 d908f04b9fb4f9649653a68273.pdf
Defining the theory of change Module 1 Tool 2. Tools for designing behavior 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.2120 3879.	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.o rg/ files/ugd/29a284 2bce61 3cadf74966bbabc474e55843 ac.pdf
Strategic communication. Module 1 - Tool 3. Behavior change	Manual	Ada Sánchez-Mercado, Lisandro Moran, María Daniela Pineda, Arlene Cardozo-Urdaneta,	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.o rg/ files/ugd/29a284 02a5fe bcd1994781a47ad215aaf7d8 f3.pdf

Title	Type	Detail	Gender of Lead	Nationality of Lead	Publishers	Available from	
	(e.g. journals, manual, CDs)	(authors, year)	Author	Author	(name, city)	(e.g. weblink or publisher if not available online)	
campaigns to reduce the demand for wildlife		Alejandro Díaz, Félix Moya, Génesis Ramírez (2023). DOI: 10.6084/m9 figshare.2167 7177.					
Teoría de Cambio para reducir la demanda de aves silvestres Cardenalito y Cotorra Cabeciamarilla como casos de estudio	Workshop report	María Daniela Pineda- Maldonado, Arlene Cardozo-Urdaneta, Lisandro Morán, Felix Moya, Ada Sánchez- Mercado (2022).	Female	Venezuelan	Provita, Caracas	https://www.volandojuntos.o rg/recursos	
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	
Manual de capacitación para guías intérpretes ambientales en la península de Macanao, Área de Conservación Comunitaria Chacaracual. Módulo de participantes. Provita. Caracas, Venezuela.	Manual	Nila Pellegrini, María Daniela Pineda	Female	Venezuelan	Provita, Caracas	Manual Guías Intérpretes Ambientales 20230307.pdf	

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?	Yes
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the subject line.	No
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.	Yes
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.	Yes
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 17)?	Yes
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	1