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 2022

IWT Challenge Fund Project Information

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Project reference	IWT102
Project title	Demand reduction behaviour change in illegal Venezuelan threatened bird markets
Country/ies	Venezuela
Lead partner	Provita
Project partner(s)	
IWTCF grant value	▇▇▇▇▇▇
Start/end dates of project	
Reporting period (e.g. April 2021-Mar 2022) and number (e.g. Annual Report 1, 2, 3)	September 2021 - March 2022 - **Annual Report 1**
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Project website/blog/social media	
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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] (see References list file in Supporting material folder) and included in Appendix I of CITES [2].

Most YSA are found on Macanao, Margarita Island, where 3 of every 10 people keep YSA as pets [3]. The primary motivations behind YSA demand are affective attitudes towards parrots, and misguided perception of benefits from human protection [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*) will be focused on encouraging, in Macanao communities (Figure 1), participation in outdoor activities as an alternative to supplement the benefits provided by pet parrots (companion and entertainment). 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.
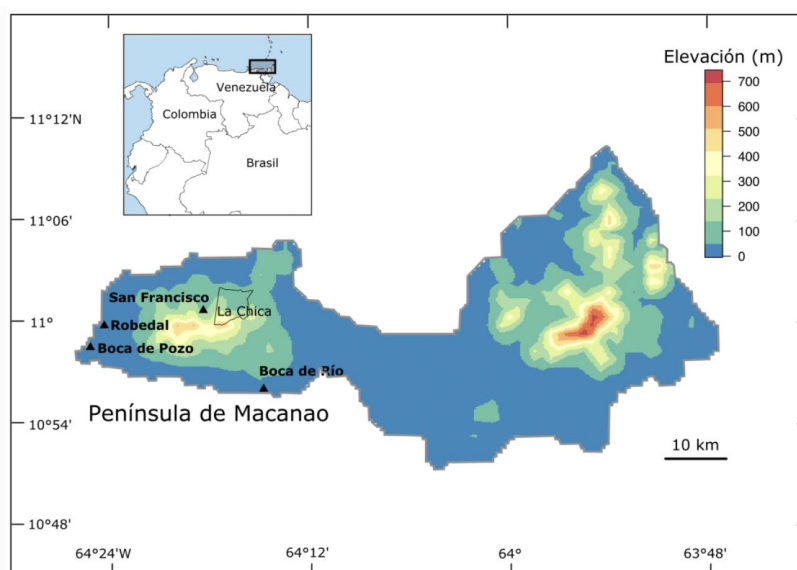
Figure 1. Study area for the behaviour change campaign Green Skies focused on reducing demand of the Yellow-shouldered Amazon (YSA) in Macanao communities, Margarita Island, Venezuela. The campaign activities will be implemented in Robedal and Boca de Pozo communities, while San Francisco and Boca de Río will act as control communities, where no activities will be developed and only behaviour and motivations monitoring will be performed. The polygon indicates the La Chica border, where a long term surveillance program has been implemented by Provita to protect the YSA nesting area.

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 [6]. 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,

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particularly across language barriers, perpetuating misguided and unsustainable captive-breeding practices among Venezuelan and international breeders [5,6]. Our behaviour change campaign, *Anidando Futuro* (*Nesting Future*), 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 wild-caught RS. 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.

2.   Project partnerships

Partners involved in project planning and evaluation

- Besides helping to coordinate and summon meetings with community-based organisations at Macanao, members of the Rural Finance Foundation (FUNDEFIR, Amada Estaba), has been involved in the development of the questionnaire for measuring the baseline behaviour indicators in the campaign Green Sky for the YSA (Figure 2a; indicators 1.4 - 1.6, activity 1.4). FUNDEFIR staff verified that tone, language and complexity of questions was consistent with reading comprehension level of Macanao people. They also helped us to design the questionnaire protocol, including seeking for local information to calculate sampling size (household numbers per town, identification of safety sampling area, etc), optimising implementation times to local social dynamics (e.g. avoid the busy days of street markets), and identifying local women to conform the interviewers crew.
- Members of the Red Siskin Specialists and Aviculturists Network (ReSSAN) from Spain (Roberto Jurado Medrán), Portugal (Eugenio Pastor, Sereno Reginaldo, Mario Simoes) and Brazil (Hugo Santana), helped us in develop the questionnaire for measuring the baseline behaviour indicators in the campaign Nesting Future for the RS (Figure 2b; indicator 1.4 - 1.6, activity 1.4). They adapted our technical lenguaje to the jargon and tone used by breeders, increasing the chance for higher response rates. They also helped us with translation to Portuguese, and advised us about sampling protocol, particularly selecting the control and treatment groups. ReSSAN members were also involved in creating the snow ball contact network, through which, we are currently distributing the questionnaire across breeders in the focal audiences. All of them will also promote local participation by disseminating campaign's messages through their communication channels (newsletter, social media, etc.) (Supporting material > Collaboration agreement letters).
- Our partners at IUCN and the Smithsonian Institution (National Zoo & Conservation Biology Institute), helped us enhance and strengthen our regional collaboration network to identify new study cases in Latin America, identify technical advisors in behaviour change campaigns, and identify new channels for toolkits and project products outreach. So far we have met with Allan Crawford (Senior Director, TRAFFIC), Abigail Hehmeyer (Program Officer, World Wildlife Fund), Gayle Burgess (Behaviour Change Programme Lead, TRAFFIC) (Figure 2c,d), and Luca Lo Scavo (Rol Echo Bonaire) (Figure 2e).

Figure 2. Partnership involvement in the project. (a) Training session with FUNDEFIR staff, Amada Estaba and the interviewer team. **(b)** Meeting with members of the Red Siskin Specialists and Aviculturists Network (ReSSAN). **(c)** Meeting with Allan Crawford, Senior Director, TRAFFIC, and Abigail Hehmeyer, Program Officer, World Wildlife Fund. **(d)** Meeting with Gayle Burgess, Behaviour Change Programme Lead, TRAFFIC. **(e)** Meeting with Luca Lo Scavo, researcher from Echo Bonaire.
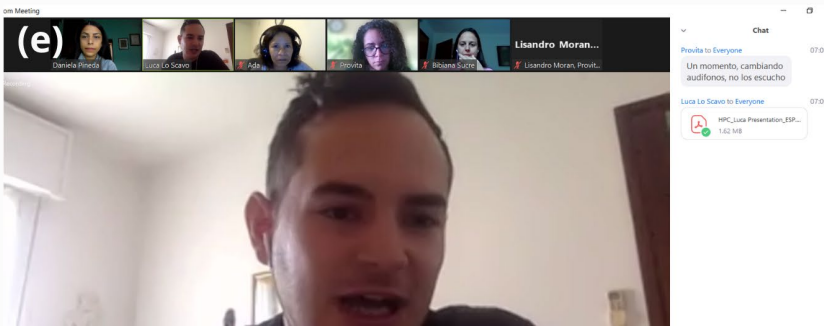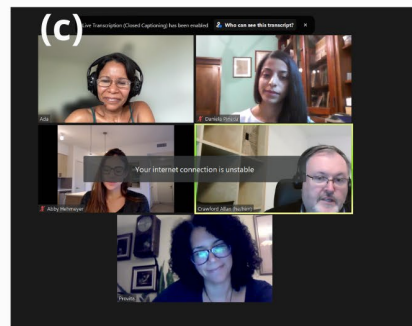
Lessons, strengths or challenges with the partnership

Challenges:

- In November of 2021, the regional government of the Nueva Esparta state, where Macanao is located, changed after elections. This change holds back the previous agreements we gained with the Environmental Office in this office. However, in February 2022 we had a very promissory meeting with Engineer Francisco Bello, President of the Tourism Corporation of the State of Nueva Esparta (CORPOTUR), assigned spokesperson of the Environmental Office, who agree in promote local participation by disseminating campaign's messages through their communication channels (social media, etc.).
- Changes in the directive board of the Instituto Venezolano de Investigaciones Científicas (IVIC) also hold back our previous collaboration agreements, delaying meeting opportunities to coordinate their involvement in the project. We expect to meet with them by the end of Q1 2022.
- Frequent electrical and internet blackouts in Venezuela have limited or interrupted participation of the project technical crew in meetings with international stakeholders. Our backup strategy is to prepare the agenda and meetings key information points previous the meeting and share this information with all the crew. In this way, any member of the team can stand alone in the meeting.
- Having the project crew in Venezuela and the project leader coordinating from Australia find a suitable time to meet with our partners in the USA and Europe, and with our communication marketing advisors in Chile, has required a lot of flexibility with our work

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time dedication. Fortunately, flexibility has been shown by our team, partners and collaborators, for which we are grateful.

Strengths:

- Provita is now capitalising years of working hand in hand with local organisations and leaders, which is now translating into trust and commitment of formerly reticent stakeholders. Aviculturist breeders associations from Mexico and Argentina, so difficult to reach in the past, are now eager to collaborate with us. Similarly, senior people in Macano, usually indifferent to conservation-related activities, are now approaching us through their parish communities.
- In 2021, Provita and Fundación Temaikèn from Argentina started a collaborative network to share experiences and learn lessons to tackle illegal trade in cage birds. The project *ECHO - Illegal cage birds trade* funded by the American Bird Conservancy uses the ECHO approach for learning and collaboration to create virtual communities where professionals share comments, suggestions, and experiences focused on promoting best practices. In this project, Provita and Fundación Temaikèn organise and participate in workshops and discussion sessions on their experiences for tackling illegal cage birds trade in Venezuela and Argentina, highlighting methodological approach, implementation strategies, and lessons learned.

Lessons:

- Language limitation when communicating with Brazilian and Portuguese partners was successfully overcome by including in the meetings bilingual stakeholders and by using technological support (voice transcription services).
- Creating a stakeholder organisation chart from the beginning of the project, hierarchized by stakeholder's role and interest level, helped us to better define our communication strategy and keep effective communication with them. We used this chart to identify frequency and channels of communications for each stakeholder, and we assigned a specific spokesperson for each of them.

Local involvement

Beyond involving local communities through meetings and discussions sessions (as we detailed above), Provita has been successful in both incorporating local people into their staff (e.g. Ecoguardians and breeders) and gain spaces within the communities through their regional headquarter in Macanao and the Red Siskin Conservation Center in Turmero. This placed us in the privileged position of being able to incorporate the local perspective in both the problem diagnosis, and their solutions. Also, this has helped us to identify opportunities and barriers to implement the proposed solutions. Since the project began, Ecoguardians and breeders have been involved in the Theory of Change (ToC) design and core activities identification (as described above), ensuring that the campaigns will be attained to social, cultural and conductual contexts. Beside our petit committee of local vision, we also discuss the ToC and activities with a wider range of local actors with the aim of capturing a wider diversity of visions, and in the same time, identify implementation allies. We developed the following meeting and discussion sessions:

- Following Gayle Burgess' suggestion, we are exploring the use of religious belief as a channel to promote social norms encouraging people to take practical action for the environment following the Faith Plans initiative, and the WWF Beliefs and Values Programme. Alejandro Rangel, Catholic priest from Boca del Río, will play an important role promoting our campaign message among youth and seniors members of his parish and create the snow ball contact network among other Catholic priests in Macanao (Figure 3a).

- We developed a meeting with local authorities and leaders in Macanao to identify and prioritise core activities for the *Green Sky* campaign. We met with José Nicasio Narvaez (Mayor of Macanao Peninsula Council), Lorelis Valerio (director of Environment Office - Macanao Peninsula Council), Francisco Bello (president of Nueva Esparta Tourism Corporation), José Morillo (Dean of the School of Applied Marine Sciences, Universidad de Oriente), Yoarlis Fernández (head of Aquaculture Department, Universidad de Oriente), Flor Marín (principal of primary school Antonio José de Sucre in Robedal), Marialys Estava, (principal of preschool Luz del Faro in Robedal), and Yusmelis Vázquez (principal of primary school Francisco Antonio García in Boca del Pozo) (Figure 3b,c,d). All of them will also provide logistic support for activities implementation and promote local participation by disseminating campaign's messages through their communication channels (newsletter, social media, etc.) (Supporting material > Collaboration agreement letters).
- Psychologist Dr. Lisbeth Bethelmy from Universidad Simón Bolívar in Venezuela, expert in environmental, social and organisational behaviour reviewed our questionnaire to measure baseline behaviour indicators. She provided us with useful recommendations to improve the internal consistency of the items used to measure the four behaviour indices based on the Theory of Planned Behaviour, as well as the approach for the result's analysis. Dr. Bethelmy will be a key co-author of the scientific publications generated from this data (Figure 3e).

Figure 3. Local involvement in the project. (a) Meeting with Alejandro Rangel, Catholic priest from Boca del Río. **(b)** Meeting with José Nicasio Narvaez, Mayor of Macanao Peninsula Council. **(c)** Meet with Flor Marín, principal of primary school Antonio José de Sucre in Robedal. **(d)** Meet with José Morillo, Dean of the School of Applied Marine Sciences, Universidad de Oriente) and Yoarlis Fernández, head of Aquaculture Department, Universidad de Oriente. **(e)** Meeting with Dr. Lisbeth Bethelmy researcher from Universidad Simón Bolívar, Venezuela.

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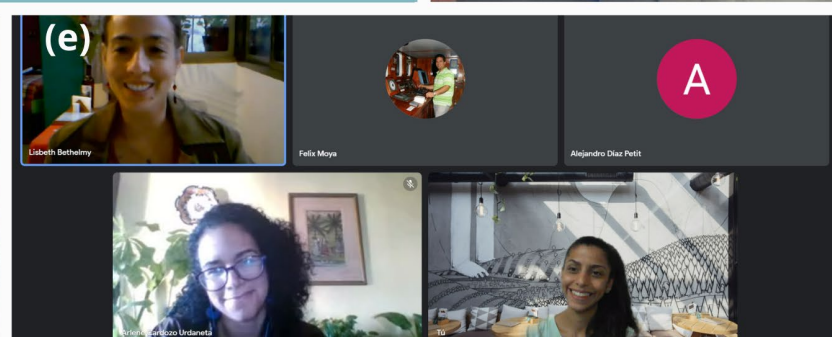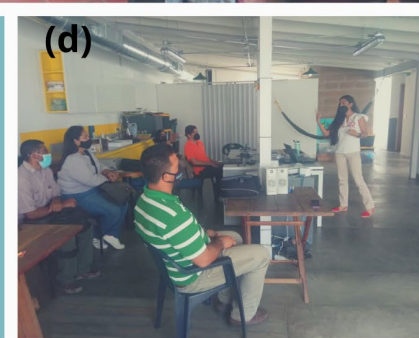
3.   Project progress

3.1   Progress in carrying out project Activities

For this year, most of the progress in our activities are related to **Output 1**. Activities related to **Output 2** will start in April 2022 (Q1).

Output 1

Campaign design (Activity 1.1): We achieved our milestone of getting the documents describing the Theory of Change (ToC) finalised by Q4 2021 [7]. We developed two workshops to build the ToC for the Red Siskin (11th and 15th October 2021) and the Yellow-shouldered Amazon campaigns (2nd and 5th November 2021) with participation of four people from the communities (Ecoguardians and ReSSAN members), and 10 people from Provita' staff with experience in conservation, environmental education and communication (Figure 4a,b). We developed four exercises aimed to:

1. Discuss audience segmentation and prioritisation of groups within the audience.
2. Evaluate different alternative behaviours and identify the one with the best tradeoff between benefits + impacts/barriers + risks.
3. Build the theory of change for the selected alternative behaviour, including objectives, indicators, and strategies for expected changes in knowledge, attitude, interpersonal communications (social norm), and barriers (perceived control).
4. Define the overall campaign objective.

For the RS campaign, the audience consisted of breeders from Venezuela, particularly in the Centre-West region (central node), Brazil, and Spain - Portugal node (Iberian node). Of the four alternative behaviours evaluated, the one with the best balance between benefits, impact and barriers was the adoption of captive breeding practices that minimise the use of wild caught RS. The general aim of the campaign is to promote within the members of the audience's breeding societies, the adoption of captive breeding practices that reduce the demand for wild caught Red Siskins. We expect that by October 2023 intention to adopt captive practices that reduce the demand for wild caught Red Siskin has increased by 20% from the baseline measured in March 2022 (mean = 4.09, SD = 1.28) (Supporting material > Theory of change).

For the YSA campaign, the audience consisted of non-professional adults ("Macanagüero de a pie") and young adult professionals from the Boca de Pozo and Robledal communities. Of the four alternative behaviours evaluated, the selected one was to interact with parrots through outdoor recreational activities instead of keeping them as pets. We expect that by October 2023, the intention to enjoy parrots through outdoor activities will increase by 20% compared to the baseline measured in March 2022 (mean = 4.03, SD = 1.02). We think that if we successfully promote 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 (Supporting material > Theory of change).

Supporting material in Spanish for the workshop includes Miro templates for the exercises, a presentation covering basic concepts and strategies for behaviour change campaigns, and infographics with the main insights of the baseline studies (Supporting material > Resources for campaigns workshops). Altogether, the templates, the video, and the infographics will be part of the first module of the toolkits (Output 2.1). Results from both workshops were summarised in the workshop report in Spanish [7] and main tables are also available in English (Supporting material > Theory of change).
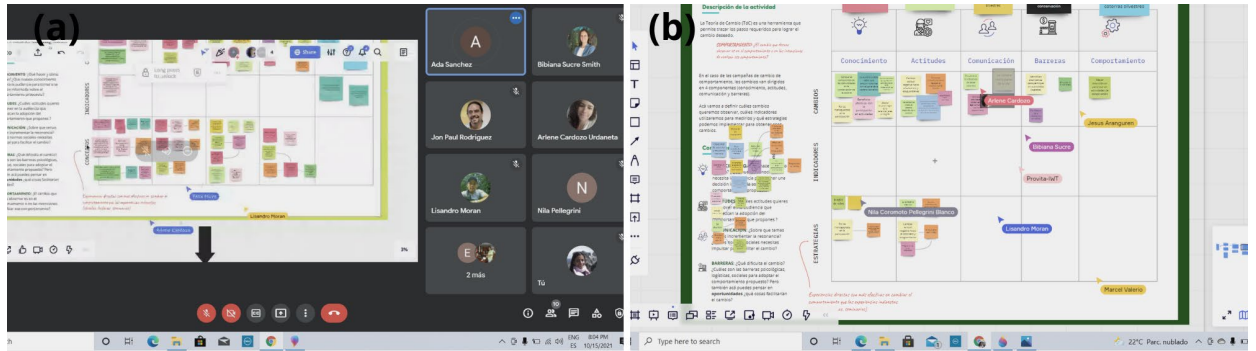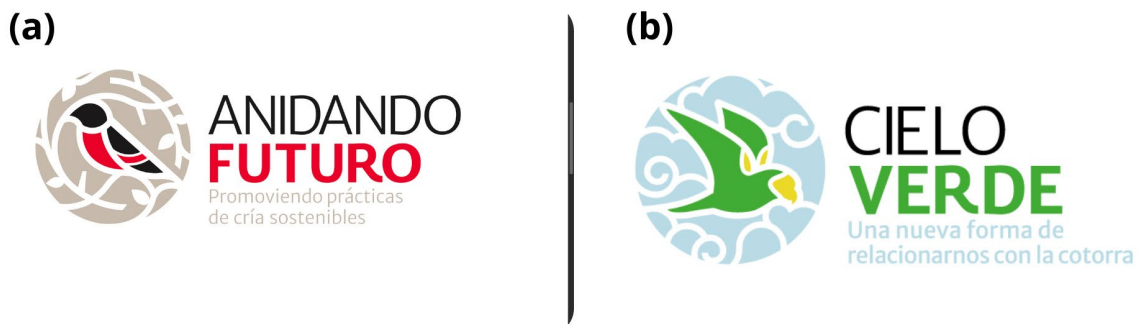
Figure 4. Designing behaviour change campaigns for the Yellow-shouldered Amazon (YSA) and the Red Siskin (RS). (a) Workshop to build the Theory of Change (ToC) for the Red Siskin campaign. **(b)** Workshop to build the ToC for the Yellow-shouldered Amazon campaign. **(c)** Workshop to discuss the campaigns' communication plan. **(d)** Brainstorming workshop with Macanao's representative of cultural, education, conservation, and government sectors to identify core activities for the YSA campaign.
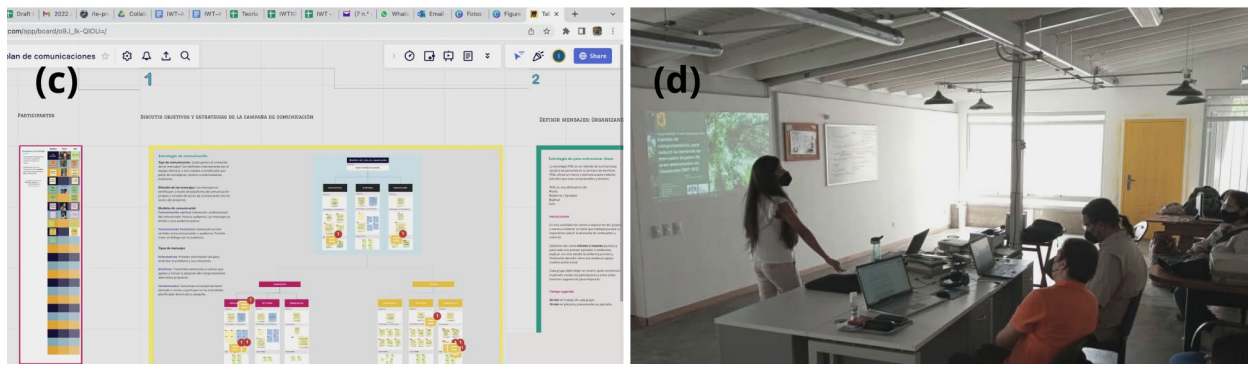
Pilot study to test communication strategy (Activity 1.2): We achieved our milestone of getting by Q4 2021 a communication plan for the campaigns adapted according to lessons learned [8]. Our technical team developed a document with the communication plan for the behaviour change campaigns. We then developed a workshop (11th December 2021) with participation of 10 Provita' technical advisors, to discuss: 1) objectives and strategies proposed by the project team, 2) develop the campaign launch message and strategy, and 3) brainstorm campaign messages (Figure 4c). Supporting material in Spanish for the workshop included Miro templates for the exercises (Supporting material > Resources for campaigns workshops). Comments and suggestions from the workshop were included in the Spanish version of the document [8] (Supporting material > Communication plan_Behavior Change Campaigns_ES_20220406). This document describes:

1. The communication goal and objectives.
2. Audience description and priority groups within the audience (information generated in the ToC described above).
3. Communication strategies, including principles for message crafting, campaigns titles and taglines (Figure 5), and messengers.
4. Communication channels, detailed objectives, goals, strategy, indicators, media of verification, and timeline for each campaign.

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(a)   **(b)**

> **Figure 5. Image, titles, and taglines for (a) the Red Siskin (RS) and (b) the Yellow shouldered Amazon (YSA) bahaviour change campaigns.** The RS' campaign title Nesting Future will promote within breeding societies in Venezuela, Brasil, and Iberian node (Spain & Portugal) the adoption of captive breeding practices that reduce the demand for wild caught Red Siskins. The YSA's campaign entitle Green Sky will promote among people into Macanao communities interact with parrots through outdoors activities.

Design of core campaign activities (Activity 1.3): We reached 50% of our milestone of getting 10 core activities with descriptive sheets ready by Q4 2022. Currently, we completed two descriptive sheets for the *Nesting Future* campaign and three for the *Green Sky* campaign (Supporting material > Core activities).

For the core activities in the *Green Sky* campaign, we developed a brainstorming workshop (16 - 18th February 2022) with nine people from Macanao communities representing cultural, education, conservation, and government sectors (see section 2 - Local involvement) to identify core activities that will allow people to connect and enjoy parrots without keeping them as pets (Figure 4d). Initially, participants listed 16 activities and then we asked them to evaluate each activity, whether it meets the following criteria: 1) focused on the selected groups within the audience (professionals and common folks); 2) could be developed in outdoor spaces; 3) could be related with the parrot enjoyment in their natural habitat; 4) could be perceived for local people as interesting and enjoyable; 5) could be easily implemented based on the current resources, technical capacities and logistic. We finally selected seven activities with the highest score. The selected activities includes three direct experiences activities (volunteer group, bird watching, and interpretive trail), which will allow participants to partake in conservation management experiences, bird encounters, and view the parrots up close while learning about the various conservation activities to protect them at the Chacaracual Conservation Area. The other four selected activities are complementary activities (forum cinema, role plays and theatre, lottery, and ecological and cultural gymkhana), which will help us to get into the communities and overcome the current apathy. We developed descriptive sheets for three complementary activities (Supporting material > Core activities > Core activities_YSA). We expect to finish the remaining descriptive sheets before the campaign launch in June 2022 (Q1 2022).

For the RS campaign, the process of identifying and prioritising the core activities was different. We based our activity selection on previous work developed by Red Siskin Initiative, which suggests that workshops, discussion forums, and presentations in aviculturist events are the activities with the highest engagement rate of breeders. Given our audience groups are international, all the core activities will be online.

We will develop six discussion forums to encourage the discussion around the role of breeders in the illegal RS trade, and sustainable captive breeding strategies. The main aim of the forum is to create a safe and comfortable space for breeders to express their opinions and beliefs as a way to overcome mistrust and misunderstanding between breeders and conservationist organisations. The forums will be open for four months (December 2022 to March 2023) and lessons learned from the forum will be incorporated into the workshops. We

will develop four workshops (February - March 2023) focused on discussing RS' captive breeding strategies that reduce the use of wild caught birds, including housing conditions, health and good management, basic population genetics concepts and crossbreeding strategies for sustainable management, feeding, and disease control and management. Finally, we will participate with stands and presentations in aviculturist contests and meetings in Venezuela and with online presentations in international ones (Supporting material > Core activities > Core activities_RS). We expect to finish the descriptive sheet for this activity before the campaign launch in June 2022 (Q1 2022).

Measurement of baseline behavioural indicators (Activity 1.4): Surveys assessing behavioural indicators and self reported keeping behaviour reached 35% of the established sampling size determined for the audience of the RS's campaign *Nesting Future* audience (sampling size = 480; answers by 30th March 2022 = 169). For Venezuela, we achieved 30% of the sampling size established as the goal (39 answers). For Brazil's audience we achieved 49% of the sampling size (78 answers), but for the Iberian node, we barely achieved the 26% (42 answer). With an overall answer rate of 5.6 answers/day, we expect to reach the remaining 311 answers required by middle of May (56 days = 480 - 169 / 5.6).

For the for the audience of the YSA's campaign *Green Sky* we have reached so far 56% of the established sampling size (sampling size = 362; answers by 30th March 2022 = 204), with more effort located in Boca de Río (93%, 85 answers) and Boca de Pozo (65%, 60 answers), and less in the small towns of Robedal (31%, 27 answers) and San Francisco (26%, 24 answers). With an answer rate of 6.8 answers/day, we expect to reach the remaining 166 answers by the end of April (23 days = 362 - 204 / 6.8).

We used two approaches to estimate the sample size for our pre campaign assessment:

1. The number of statements used in the section to measure behaviour indicators following the Theory of Planned Behaviour.
2. The predictive power to avoid error I and II.

For the first approach, we considered a minimum of five people and an ideal of 10 people per statement (Supporting material > Baseline behaviour indicators > Protocols > Protocol for questionnaires implementation_YSA_20220311). In our case, we have 15 to 16 statements in each questionnaire (for RS and YSA), so we would need to interview a minimum of 80 people and ideally 160 people at each group of audience. That is, 240 - 480 people for the audience of the *Nesting Future* campaign (80 - 160 breeders * Brazil, Iberian node, and Venezuelan). With an overall answer rate of 6 answers/day, we expect to reach the remaining 311 answers required by middle of May (52 days = 480 - 169 / 6).

For the *Green Sky's* audience, the estimated sample size varies around 320 - 640 people for the (80 - 160 people * 4 towns). However, because we have information about the size of these localities, we additionally estimated the sampling size through a power analysis, which could give us a more accurate estimate. Using this second approach, we estimated that 362 houses must be sampled across the four towns to get a confidence level of 95% and margin error of 10% (for details see protocols in (Supporting material > Baseline behaviour indicators > Protocols > Protocol for questionnaires implementation_YSA_20220311). With an answer rate of 6.5 answers/day, we expect to reach the remaining 166 answers by the end of April (24 days = 362 - 204 / 6.5).

In both campaigns, we used questionnaires as sampling instruments. Questionnaires comprised four sections measuring: audience's communication network, intentions to demand wild-caught RS or YSA, self reported possession, and intention and motivations to adopt the alternative behaviour proposed by each campaign, following the Theory of Planned Behaviour (Supporting material > Baseline behaviour indicators > Protocols). The questionnaires and implementation protocols were approved by the Universidad Simón Bolívar's ethics committee (approval date 16th December 2021; Supporting material - Baseline behaviour indicators > USB Bioetic Committee_Aval Letter_20211216). We implemented the questionnaires in SurveyMonkey.

For the *Nesting Future* campaign, we shared the questionnaire virtually (https://es.surveymonkey.com/r/7KK7KX7) through 33 contact persons or aviculturist associations based on Venezuela, Brasil, and the Iberian node. For the Green Sky campaign, the questionnaire (https://es.surveymonkey.com/r/XT3QRYC) has been so far implemented face to face (using tablets) in the two control and two treatment communities, and the online implementation will start in April 2022 (Q1).

Implementation of core and recreational activities (Activity 1.5): Campaigns will be launched by June 2022 (Q1 2022). Launching period for both campaigns will last two months and will consist of communication campaigns aimed at positioning campaigns images among audiences. We will use this period to include insights from pre campaign evaluation (see section 3.3 Progress towards the project Outcome) into the activities to increase intentions to adopt the alternative behaviour proposed by the campaigns. After the launching period, we will continue with a communication campaign to promote knowledge, attitudes, and social and moral norms according to the aims identified in the communication plan. Then, we will follow with the implementation of core activities, which have different timelines, adjusted to audiences and implementation stakeholder. We developed a detailed timeline of specific activities for each campaign (Supporting material > Theory of Change > Theory of change_Red Siskin_EN_20220411 & _Theory of Change_Yellow Shouldered Amazon_EN_20220413).

Measuring changes in participation behaviours (Activity 1.6): Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period. However, we already developed a satisfaction questionnaire, which also evaluates participants' perceived empowerment, participation, and gained leadership (Supporting material > Core activities > Satisfaction questionnaire_ES_20211010).

Measuring changes in intermediary behavioural outcomes (Activity 1.7): This indicator remains at zero for this reporting period. Measurement planned by Q3 2022.

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. Surveys assessing self reported keeping behaviour reached 56% of the established sampling size determined for the audience of the YSA's campaign *Green Sky*.

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. Surveys assessing self reported keeping behaviour reached 35% of the established sampling size determined for the audience of the RS's campaign *Nesting Future*.

Measuring changes in nest poaching (direct observed behaviour YSA) (Activity 1.8.3): This indicator should be measured by Q1 2022, so it will be reported in the next annual report.

The YSA' breeding started in late May 2022 and currently our team is coordinating with Ecoguardians to measure nest poaching in the Characacual Conservation Community Area (CCCA). CCCA is a private protected area managed by Provita. Unlike La Chica (the biggest nesting sites in Macanao), CCCA has not been under parrot nesting surveillance. We are planning to use the same nest monitoring protocol that has been used by Ecoguardians [10] in order to make the results comparable between sites with and without surveillance (Supporting material > Protocols for monitoring traded bird rate > Protocol monitoring nest poaching_YSA_ES_19960101). Two Ecoguardians, Gabriel León and Eusebio Millán, who already participated in the design campaign workshops, have been appointed to work with our

team to develop this monitoring. We expect to complete this activity in time by the end of June 2022 (Q1 2022).

Measuring changes in trade rate for the Red Siskin (Activity 1.8.4): This activity is delayed by 3 months. Our commitment was to implement Facebook monitoring to calculate the indicator 1.8 at the beginning (Q4 2022), and the end (Q2 2023) of the campaign. The delay occurred due difficulties in recruiting volunteers to implement this monitoring. We are searching for suitable candidates and expect to start their training by the end of April 2022, so we can start the monitoring by May 2022 (Q1 2022). We expect to get the baseline (pre-campaign) estimations for the indicator 1.8 by the end of June. We updated the monitoring protocol used in previous research [5] with the IWTAG's observations about how the project will address the potential issue of differentiating between wild caught and captive-bred individuals (Supporting material > Protocols for monitoring traded bird rate> Protocol monitoring trade rate_RS_ES_20220426).

Output 2

Toolkit - Module 1 development (Activity 2.1): This activity will start in April 2022 (Q1). However we already defined the content of this module, which comprises the following chapters:

1. Constructing a baseline: Describing what type of research is required to assess demand motivation, monitoring behaviour indicators and how to use those to inform the behaviour change campaign.
2. Defining the Theory of Change (ToC): Describing the steps and strategies to develop an evidence-based ToC.
3. Defining your audience: Describing the research and information required to define the campaign audience and groups within it.
4. Establishing alternative behaviour: Describing strategies and tools to assess alternative behaviour to propose in the campaigns.
5. Developing the message: Describing strategies to craft audience targeted messages, using the best communication strategies.
6. Planning your communications: Here we will include principles and tools to define the best channels, tactics, communication strategies, and M&E to monitor the effectiveness of your communications in terms of articulation with the ToC and communication aims and goals.

For chapters 2 - 6 we will use most of the material we already developed for our communication and for our ToC workshops. We also started the updating process of the Provita' web page in order to make available these resources.

Toolkit - Module 2 development (Activity 2.2): This activity will start in Q4 2023.

Toolkit - Module 3 development (Activity 2.3): This activity will start in Q3 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): Campaigns will be launched by June 2022 (Q1 2022) (see 3.1 section for details), so this indicator remains at zero for this reporting period.

1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0): Campaigns will be launched by June 2022 (Q1 2022) (see 3.1 section for details), so this indicator remains at zero for this reporting period.

1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%): Campaigns will be launched by June 2022 (Q1 2022) (see 3.1 section for details), so this indicator remains at zero for this reporting period.

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: Surveys assessing behavioural indicators reached 35% of the established sampling size determined for the RS campaign and 56% for the YSA (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: Same status as reported for indicator Surveys assessing self reported keeping behaviour reached 56% of the established sampling size determined for the audience of the YSA's campaign *Green Sky* (see 3.1 section for details).

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: Same status as reported for indicator 1.4. Surveys assessing self reported keeping behaviour reached 35% of the established sampling size determined for the audience of the RS's campaign *Nesting Future*.

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: This indicator has not been measured and will be reported in the next annual report (see section 3.1 for details).

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: Measuring this indicator is delayed (see section 3.1 for details). We expect to get the baseline (pre-campaign) estimations of RS trade in social networks by the end of June 2022.

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): This indicator remains at zero for this reporting period.

2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0): This indicator remains at zero for this reporting period.

2.3. Altmetric and citation-based metrics of the toolkits increased by 200% by the end of 2022 and 4000% by 2023 (baseline = 0): This indicator remains at zero for this reporting period.

3.3   Progress towards the project Outcome

O.1 Intentions to acquire wild-caught birds in focal audiences measured through interviews, decrease 30% by 2023 in relation to the baseline in 2020 (baseline = 35 - 40% in YSA; 40 - 50 % in RS): Data and analysis supporting the following values and figures are in Supporting material > Baseline behaviour indicators > R code.

- Intention to acquire wild-caught RS among interviewed breeders was low (mean = 1.43, SD = 0.89, N = 164). This result differs from those reported by Cardozo-Urdaneta et al. [6], who reported significantly higher intentions (mean = 2.02, SD = 1.54, N = 138 answers). This disagreement will reflect differences in the audience sampled: the sample of Cardozo-Urdaneta et al. covered a wider range of countries (18 different countries in the Americas, Europe, and Asia), while our assessment was restricted to a narrower audience. For future comparisons, we will use the estimates for our baseline assessment, which is based on a bigger sample and is focused on our focal audience. Venezuelan breeders showed significantly higher intentions (mean = 1.59, SD = 0.78) to acquire wild caught RS than Iberian (mean = 1.12, SD = 0.39) and Brazilian breeders (mean = 1.49, SD = 1.08) (Figure 6a).

- Intention to acquire wild-caught YSA among interviewed people from Macanao was low (mean = 1.74, SD = 0.100, SE = 0.09, N = 196). This result is significantly lower than those reported by Sánchez-Mercado et al. [4] (mean = 2.60, SE = 0.166, N = 115). This disagreement will reflect the changing social context in Macanao during COVID pandemic, with young people increasingly involved in online experiences, putting aside the traditional "prank" of nest posaching (Amada Estaba pers. comm.). Having a more detailed view of how these intentions distribute across audience groups (defined by education level; Figure 5b), people with primary (mean = 2.18 ± 0.22, SD = 1.54) and high school education (mean = 2.15 ± 0.17, SD = 1.41) showed higher intentions to keep parrots as pets than people with universitary education (mean = 1.37 ± 0.09, SD = 1.37) (Figure 6b).
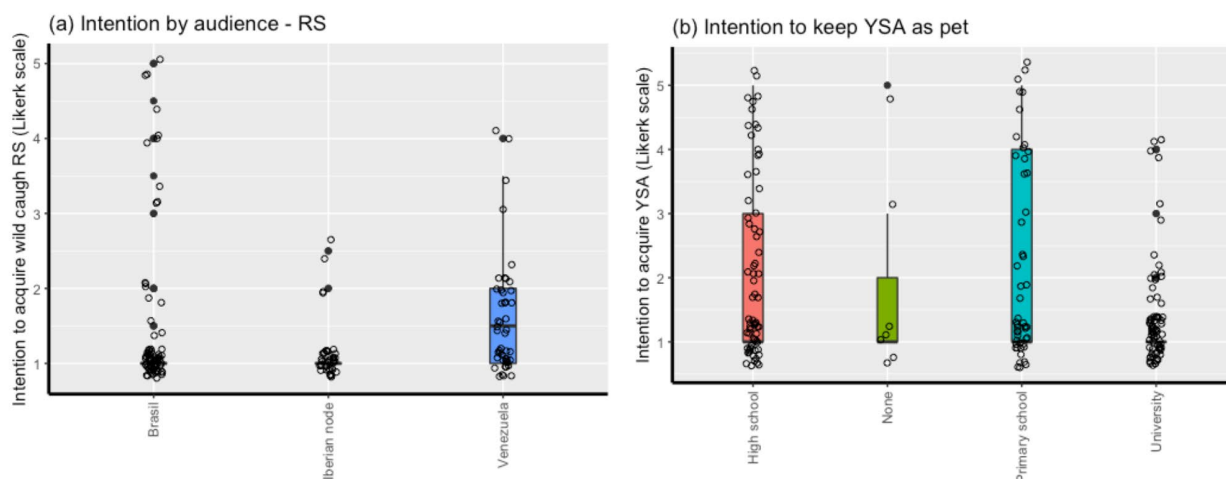
Figure 6. Intentions to acquire wild caught birds in the focal audiences (a) for the Red Siskin (RS) and (b) the Yellow shouldered Amazon (YSA) campaigns. Intentions were measured by averaging the answers (in Likert scale) of the statements evaluating intentions to acquire the corresponding species. The audience in the RS campaign consists of breeders from Venezuela, Brazil, and the Iberian node (Spain and Portugal). The audience in the YSA campaign consist of professionals (University level instruction) and common folks (primary and high school) from Robedal, Boca de Pozo (treatment), San Francisco, and Boca de Río (control).

Due in both focal audiences, intentions to acquire wild-caught birds seems to be so low, it does not make sense to expect a further reduction of these values. Also, we propose changing the indicator to express central tendency measures instead of proportions to avoid confusion with threshold definitions for the Likert scale. So, based on this preliminary baseline results, we propose change the outcome indicator as follow:

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

O.2 60% of participants in core activities (disaggregated by gender and age) with increased knowledge, positive attitudes and communication levels, measured through interviews in 2022 and 2023 in relation to the baseline level measured in Q2 - 2021: We measured knowledge and the four behavioural indicators based on the Theory of Planned Behaviour (attitudes, social norms, moral norms, and perceived control) in each audience. Data and analysis supporting the following values and figures are in Supporting material > Baseline behaviour indicators > R code.

For the audience of the YSA's campaign, we measured pre-campaign prevalence of misguided knowledge with two questions:

1. "Which recreational activities do you think would allow you to enjoy and connect with parrots without keeping them as pets?"
2. "What benefits do you think you would have if you participate in outdoor activities to enjoy and connect with parrots?"

We provided four wrong answers for the 1st question and three wrong answers for the 2nd question. We measured the prevalence of these wrong answers as an indicator of knowledge level. By 30th March 2022, the prevalence of wrong answers among the Geen Skies audience in Macanao was 41%. Increasing this percentage to 60% as proposed in our indicator, entails double the current prevalence, which we think is an achievable goal across our audience.

For the YSA's campaign audience, we also measured the baseline of attitudes, social norms (related to the interpersonal communication component in the ToC), moral norms, and perceived control (related to the barriers component in the ToC). In the treatment (Robedal and Boca de Pozo) and control (San Francisco and Boca de Río) communities in Macanao (Figure 7). Overall intention to adopt the behaviour proposed was high (mean = 4.03, SD = 1.02, N =191), as well as the positive attitudes towards the proposed behaviour was high (mean = 3.85, SD = 0.585, N = 198), and the perceived moral norms (mean = 4.21, SD = 0.802, N = 191), but the the perceived social norms (mean = 3.13, SD = 0.572, N = 198) and control (mean = 3.19, SD = 0.610, N =196) was comparatively low (Figure 7). However this general pattern varies across gender and age. Young women (18 - 20 years old) have lower intention to adopt the proposed behaviour, lower perception of moral norms, and lower positive attitude values towards the proposed behaviour than adult women (>21). Men across all age groups showed higher intentions to adopt the proposed behaviour, and higher moral norm perception than women. Adult men (31 - 40 years old) have higher positive attitude values than younger men (18 - 30 years old). In general, low levels of perceived social norms regarding the adoption of the proposed behaviour across age and gender. Older women and men have a lower level of perceived control to adopt the proposed behaviour than younger people (Figure 7). We fitted a regression model to capture the response of the dependent variable (intention) as a function of TPB continuous independent variables (attitudes, social and moral norms, and control). Attitudes and control were significantly related with the intention to adopt the alternative behaviour proposed for the *Green Sky* campaign. So, during our campaign we will focus on increasing attitudes and perceived control levels by 10% particularly in young women and older people.
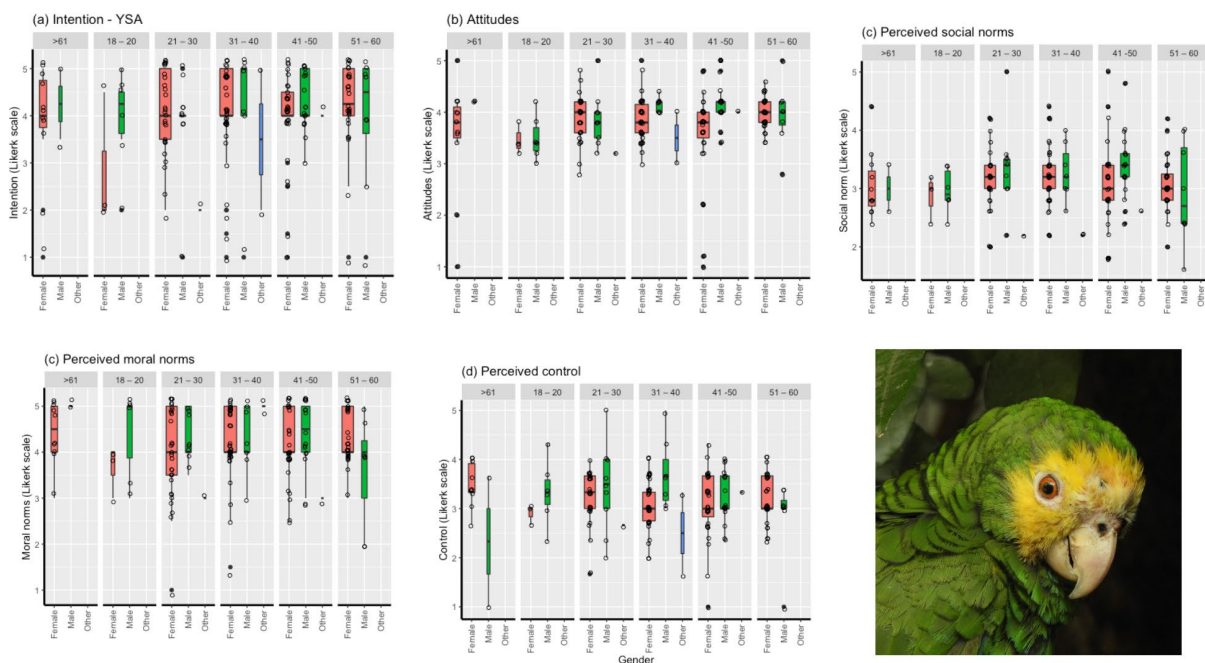
Figure 7. Baseline of behavioural indicators for the Yellow shouldered Amazon campaign audience. Indicators are based on Theory of Planned Behaviour and disaggregated across gender and age groups among interviewed people in Macanao previous launch of the YSA campaign Green Skies. **(a)** Intentions to adopt the alternative behaviour proposed for the campaign. **(b)** Attitudes toward alternative behaviour. **(c)** Perceived social norms regarding the alternative behaviour. **(d)** Self perceived control to adopt the alternative behaviour. Box widths are proportional to sample size. Credit picture: Lisandro Moran.

For the the audience of the RS's campaign, we measured the prevalence of misguided knowledge with two questions:

1. "How do you think you could contribute from your personal sphere, in reducing the demand for wild-caught red siskins?"
2. "Which captive breeding practices do you think could help to reduce the demand for wild-caught red siskins?".

We provided several correct answers and two wrong answers. We measured the prevalence of these wrong answers as an indicator of knowledge level. By 30th March 2022, the prevalence of wrong answers was 17%. Increasing this percentage to 60% as proposed in our indicator, entails triple the current prevalence, which we think is an achievable goal across our audience.

For the RS's campaign audience, we also measured the baseline for attitudes, social norms, moral norms, and perceived control indexes in the treatment and control aviculturist associations in Venezuela, Brazil, and Iberian node (Figure 8). As we mentioned in the proposal, male dominance in the sample reflects the social dynamic in the captive breeding practice. Overall intention to adopt the behaviour proposed was high (mean = 4.09, SD = 1.28, N =163), as well as the perceived social (mean = 3.88, SD = 0.968, N = 137) and moral norms (mean = 4.34, SD = 0.839, N = 79), but in general, attitudes towards the alternative behaviour (mean = 3.62, SD = 0.998, N = 137) and perceived control (mean = 3.55, SD = 0.705, N =112) was comparatively low (Figure 8). However this general pattern varies across age. Intentions to adopt the alternative behaviour, positive attitudes toward this behaviour, perceived social norms, and moral norms were high and similar across age groups, but quite variable among seniors breeders (>31 years old). Perceived self control to adopt the alternative behaviour was particularly low among the youngest breeders (Figure 8). We fitted a regression model to capture the response of the dependent variable (intention) as a function of TPB continuous independent variables (attitudes, social and moral norms, and control). Only perceived moral norms were significantly related with the intention to adopt the alternative behaviour proposed. So, during our campaign we will focus on increasing perceived moral norms levels by 10% across all ages and perceived control in young breeders.
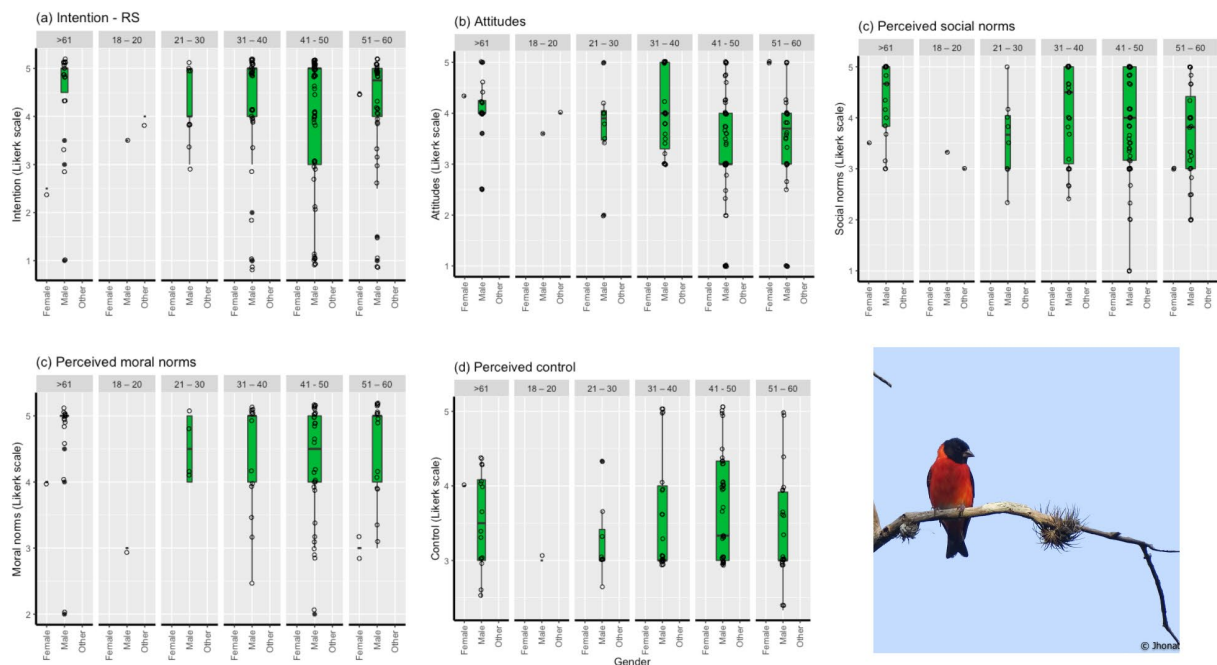
Figure 8. Baseline of behavioural indicators for the Red Siskin campaign audience. Indicators are based on Theory of Planned Behaviour and are disaggregated across gender and age groups among interviewed breeders in Venezuela, Brazil, and Ibearian node (Spain & Portugal) previous launch of the RS campaign Nesting Future. **(a)** Intentions to adopt the alternative behaviour proposed for the campaign. **(b)** Attitudes toward alternative behaviour. **(c)** Perceived social norms regarding the alternative behaviour. **(d)** Self perceived control to adopt the alternative behaviour. Box widths are proportional to sample size. Credit picture: Jonathan Miranda.

In order that the indicator for intermediary behaviours measures (knowledge, attitudes, perceived social norms, moral norms and control) properly describe the temporal variation across ages and gender, instead of only progress in survey application we propose change the original outcome as follow:

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): This indicator will be measured after June 2022, when campaigns have been launched. So far, we created the Facebook (https://www.facebook.com/Anidando-Futuro-102769012356070/) and Instagram (@anidando_futuro) pages for the *Nesting Future* campaign, as well as the Facebook (https://www.facebook.com/Cielo-Verde-104056735600629/photos) and Instagram (@cieloverde.1) pages for the *Green Sky* campaign. See Supporting material > Communication plan_Behavior Change Campaigns_ES_20220406 for detailed description of monitoring strategies for this indicator.

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): This indicator will be measured after June 2022 when the campaigns have been launched. See Supporting material > Communication plan_Behavior Change Campaigns_ES_20220406 for detailed description of monitoring strategies for this indicator.

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: This indicator will be measured during Q1 2022 (see 3.1 section for details).

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): Data and analysis supporting the following values are in Supporting material > Baseline behaviour indicators > R code. Seventeen percent of the interviewed people in Macanao (N = 204) declared they currently keep YSA. This value is significantly lower than those reported (33%) by Sánchez-Mercado et al [4]. We considered this result is not a sampling bias, but a real trend as our interviewers confirm to us that a lower number of pet parrots were observed than 3 years before. This result also agrees with the lower level of intentions to keep parrots as pets (see O.1 description for details) and could reflect the changing social dynamic in Macanao after COVID pandemic.

For the RS's audience, 44% of the interviewed breeders (N = 169) declared they currently keep RS. This prevalence is significantly higher than the 9% reported in Sánchez-Mercado et al [5] and likely reflect a combination of difference in audience between studies and less concealment of RS keeping among breeders as result of increased trust in Provita work.

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 so as to keep institutional support for the project strong.
Comments Assumption 1: For the majority of our partners, their financial and institutional situation in the last seven months have been stable enough to allow their active participation in the project. We expect that this stability will remain the same for the rest of 2022. However, as mentioned before, change in the directive board of the Venezuelan Institute of Scientific Research (IVIC) and change in local government in Nueva Esparta, where Macanao communities are located, have meant that collaboration networks need to be updated and strengthened. We have already started this process and given the longstanding collaboration of Provita with both institutions, we are confident that no major issue will occur.

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: The baseline measure shown that intentions to adopt the alternative behaviour proposed by both focal audience was high (>4 in Likert scale) for (RS's campaign mean = 4.09, SD = 1.28; YSA's campaign mean = 4.03, SD = 1.02) (Supporting material > Baseline behaviour indicators > R code), suggesting that people from Macanao communities and Venezuelan and international breeders communities will be willing to participate in our project.

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

Comments to Assumption 2: In both study cases, questionnaires have been implemented in online platforms with the aim to encourage anonymity. In the case of Macanao communities where questionnaire implementation is face to face, interviewers hand out the tablets with the questionnaire link to the interviewee so they can answer the questions by themselves. Even so,

some level of concealment or social desirability (i.e. people do not answer what they think but what they believe is socially expected) is expected in the questions assessing keeping behaviour. To reduce this possibility, we highlighted across different sections of the questionnaires that this survey is about people's opinions and perceptions, hence there are no "correct" or "wrong" answers (for details see https://es.surveymonkey.com/r/7KK7KX7 and https://es.surveymonkey.com/r/XT3QRYC).

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

Comments to Assumption 3: We considered that in both focal audiences, interviewees have been willing to answer the questionnaires. The current questionnaire anwer rate for RS's campaign audience is around 5.6 answers/day. This rate is significantly higher than those reported by previous efforts (0.76 answer/day = 138 answers/6 months [6]). For the YSA's campaign audience, the current answer rate is 6.8 and although lower than previous studies (10 answer/day = 150 answers/15 days [4]) is high enough to guarantee that we will be able to reach the sampling size proposed as goal (see section 3.3 Progress towards the project Outcome). Regarding participation in campaigns activities, we have addressed this point in the Comments to Assumption 1.

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

Comments to Assumption 4: Political instability in Venezuela seems to have calmed down in the last 2 years with some space for the incremental development of democratic co-existence [11] and relatively stabilised economic crisis [12]. We expect that this stabilisation remains for the rest of 2022 and social unrest does not interfere with the implementation of core activities. However, the situation with COVID 19 outbreak is maybe more unpredictable. Venezuelan authorities have established flexible control measures as part of the country's COVID-19 response program. The government has temporarily ended its long-standing "7+7" program, under which a series of strict restrictions alternated with flexible measures weekly. Since November 2021 the flexible measures have remained indefinitely, but the plan will be reimposed if infections increase.

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

Comments to Assumption 5: So far, Internet and power services have been stable enough to allow our crew in Venezuela to hold the workshops and meetings required for the campaign design. We have established the contingency plan of providing gas for electricity generators during upcoming workshops with breeders and face to face core activities in Macanao.

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. Gayle Burgess (Behaviour Change Programme Lead, TRAFFIC) invited us to share our case studies through a webinar, which we expect to do by August - September 2022.

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. The delivery of the first module is programmed by Q2 but we already started as all the material, tools and guide we used to design our campaign will be part of these toolkits.

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. The communities driving demand for YSA and RS have contrasting socio-economic contexts, the former enduring high unemployment and low educational level, while the latter have professional training and stable employment. The role of poverty in wild-caught birds demand in these cases goes beyond the economic realm: is defined in Macanao communities by lack of power and voice, and in the local RS breeders communities, by lack of access to knowledge and capacities. In Macanao, women's participation in the social functions, including conservation programs, is hampered by the mental stress created by loneliness and the increased responsibility of looking for food, medicine and basic resources [3]. Jointly with the lack of working opportunities, this situation makes them not only more dependent on male support and government social help [3,4], but poorer in terms of empowerment and participation. On the other side, the closed community of RS expert breeders lacks tools and channels to share expertise with the more inexperienced breeders (intermediaries), particularly across language barriers, perpetuating misguided and unsustainable captive-breeding practices among local and international breeders [5-6]. Due behaviour change campaigns for both focal species will be launched by the beginning of June 2022, the indicators monitoring this impact (see section 3.1, Activity 1.6) have not been measured by the moment this report is issued.

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. Evidence suggesting that illegal trade in both species is demand-driven more than supply-driven includes a high number of actor types involved as consumers, the high volume of birds handled by consumers, the relatively low cost of specimens, and the low variation of price sale across the year [**3-5**]. So we expect that reducing demand will have a significant effect in reducing the overall illegal trade rate in both species. To achieve this, our project is focused on the main consumer actors identified in the illegal trade network of the YSA and RS, the common folks and young professionals from Macanao communities in the case of the YSA trade, and the breeders in Venezuela, Brasil and the Iberian node (Spain and Portugal).

This year we have successfully completed the design of behaviour change campaign for both focal species by:

- Using the guidelines and recommendations suggested for the international scientific community [13-18].
- Using evidence from ground-based studies about motivations and social, cultural drivers of demand to support our audience segmentation and alternative behaviours [3-6].
- Using baseline values of behavioural indicators assessing the intentions and motivations to adopt the alternative behaviour proposed by the campaigns.

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]. This wild population is sustained due high demanding poaching prevention efforts developed by Povita. 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]. We expect that reducing demand could translate in a significant increase in population size of both wild populations. However, due behaviour change campaigns for both focal species will be launched by the beginning of June 2022, the indicators monitoring the above described impacts have not been measured by the moment this report is issued.

6.   Project support to poverty reduction

The Macanao community, particularly women, will be the primary beneficiary of the YSA behaviour change campaign. The expected benefits are: 1) improved management of loneliness and stress as result of more frequent contact with wild YSA and their habitat through participation in meaningful conservation activities; 2) increased representation and leadership in the community, particularly in the governance of natural resources, as result of their engagement in community-based conservation activities (e.g. community nurseries, Ecoguardians). We will quantify benefits attained with the following indicators: gender and age-disaggregated number of participants in our core activities, and perceived empowerment, participation, leadership and sense of community in participants measured through interviews.

For the RS behaviour change campaign, the Venezuelan Red Siskin breeder community, will be the main beneficiary. The expected benefits are: 1) An increased capacity in captive breeding without the use of wild-caught specimens by providing access to tools and information; and 2) increased representation and leadership in international aviculturist communities by creating discussion spaces with experienced breeders. Indicators of benefits achievement will include the number of people participating (disaggregated by gender) in the capacity building activities (workshops, presentations), the number of local breeders participating in international forum and discussion groups, and perceived empowerment, participation, and leadership in participants measured through interviews.

Due behaviour change campaigns for both focal species will be launched by the beginning of June 2022, the indicators monitoring the above described benefits have not been measured by the moment this report is issued.

7. Consideration of gender equality issues

We will contribute to reduce gender inequality by:

- Designing family-friendly activities, whether assisting with childcare or integrating children in the activities (Supporting material - Core activities > Cores activities_YSA).
- Introducing a quota of at least 30% female participants for the RS campaign activities and 50% for YSA campaign (Supporting material - Core activities).
- Ensuring a quota of at least 20% women as trainers, speakers and facilitators in workshops and forum related activities in RS campaign and 50% in YSA campaign (Supporting material - Core activities).
- Requesting all project implementers to adopt Provita's Code of Conduct to ensure participants of every gender and background feel safe during activities.
- Being mindful of the time and place at which we conduct activities campaigns so that we do not interfere with the household work of women (Supporting material - Core activities > Cores activities_YSA).

Due behaviour change campaigns for both focal species will be launched by the beginning of June 2022, the indicators monitoring the gender equality and participation have not been measured by the moment this report is issued.

8. Monitoring and evaluation

For this project, M&E is completely developed by Provita. We use different indicators of achievement, including project progress and scope, expense, risks & opportunities, and learned lessons.

We developed monthly reports describing the general progress of the project using a S curve and Work Breakdown Structure (WBS) in terms of planification (whether the planned activities are developing timetely), implementation (whether resources required are timely available), and scope (whether outputs and activities are actually contributing to the project outcome). To monitor project scope we created a matrix with funder specific requirements (e.g. outputs, activities, etc.). We then validate whether each requirement is included in the WBS and budget. We visualise the general progress through a traffic light scheme with green (good) indicating <15% deviation, yellow (warning) indicating a deviation between 15 - 30%, and red (critical) deviation >30%.

To monitor expenses, we develop monthly expense analysis, based on the approved budget and the actual expenses made during the month, projecting expenses until the end of the period (Q1, Q2, etc) or funder's fiscal year (in this case until March 2022). Exchange rates

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and expenses are updated daily, which allows us to do real cost projections in real time. We also develop monthly risk and opportunity assessments.

Every four month learned lessons are shared and discussed within each project and then shared through a workshop amongst all Provita projects.

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. We share our progress with our partners based on a stakeholders/partners power-interest analysis, which allows us to define the best communication strategy with each of them. That is, those who we need to keep a close communication with (monthly meetings), those who need to be satisfied (occasional emails), or those who only need to be informed (roughly every 6 months). So, the project information to be shared and the manner in which it is shared is determined by each type or stakeholder.

9.   Lessons learnt

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

- This funding represents the opportunity for Provita to consolidate a research-action line focused exclusively on illegal wildlife trade, beyond the general conservation programs of the two focal species, the Yellow-shouldered Amazon and the Red Siskin. This brought the opportunity to increase the number of people dedicated to this topic from 2 to 6 which we hope translates into higher local capacities to tackle wilife trade in Venezuela and the region. However, an important lesson learnt from this process is that for starting, new conforming projects, it is necessary to include in the timetable, the capacitation time for the new staff, so they can have the minimum conceptual bases, tools, and strategies to handle the project. Although our technicals have a solid base on illegal wildlife trade monitoring, they expanded the first 2 months learning the conceptual basis of behaviour models, behaviour change campaigns, and communication strategies in conservation. They learn all these in record time, and not important delays were introduced in our timetable, but this requires an extra effort and time from them, and for that the project leader and all the Provita's directive board are very grateful.
- The adoption of technology, apps, and analysis tools has allowed us to optimise processes and generate products with higher quality than in the past. For example, past questionnaires were printed, and after completed those need to be transcribed in a data sheet increasing the transcription error rate and processing time. Currently, we are using online forms to implement our questionnaires, which allow us to get the data available in a shorter time. Also, by automatizing the analysis using script and markdowns in R language programming, we can generate reports summarising key indicators almost at real time. The use of collaborative meeting platforms like Miro, also has allowed us to improve the efficiency and quality of our workshops, with more activities/exercises covered in a shorter time and with incredible more participation and interesting comments.
- If we had to do again the budget and timetable we will pay more attention to the fiscal year distribution in the UK. We spend a lot of time adjusting our budget and timetable to fit the year from April through March, and not from January through December as we did at the beginning. Although IWTCF staff have very patience with us to solve this issue, we could have saved the time spent in solving this if we had read more carefully the guidelines from the beginning.
- IWTCF audits the final financial report. Although Provita performs annual audits, these are for all the organisation, not for each project as required by IWTCF. We did not include this cost, which was important, in our initial budget so we had to restructure some costs in order to include the audit cost without affecting the overall project budget.

Again, we could have saved the time spent in solving this if we had read more carefully the guidelines from the beginning.

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

At the beginning of the project, the IWTAG provided us observations about: 1) monitoring and mitigation strategies to avoid mask and drive demand as well as, better explain the links between demand reduction and a sustainable change in IWT, 2) changes in the logframe to strengthen actions, indicators, means of verification, and outputs. We addressed the main technical questions raised by the IWTAG in a Change Request form and we provided:

1. More technical details about our monitoring strategy to evaluate changes in demand behaviour.
2. Better description about how our project will link demand reduction with a sustainable change in IWT.
3. Clarify how the project will address the potential issue of differentiating between wild caught and captive-bred individuals.

We have included all these technical considerations in our questionnaire design and implementation protocols (Supporting material > Baseline behaviour indicators > Protocols; Supporting material > Protocols for monitoring traded bird rate).

11.   Other comments on progress not covered elsewhere

No changes in the project design, or significant difficulties or risk to report so far.

12.   Sustainability and legacy

- Increasing interest and capacity resulting from the project: We were invited to the *II High-Level Conference of the Americas on Illegal Wildlife Trade*, organised by the Colombian and the UK governments (5th and 6th April in Cartagena, Colombia). This is the first time Provita participated in such a high profile event and has helped us to increase the visibility of our project, as well as our network with other NGOs and institutions working in IWT in the region. The fact that IWT is now a distinctive research and action program within Provita has also allowed us to work harder to increase and strengthen this collaboration network with national and overseas partners (see section 2). Before we got the IWTF, only two people were working in IWT within Provita. This number increased to six in seven months and although it is a modest increase, it is a boost in our technical capacity.

- Action taken as part of the project's open access plan: We started the updating process of the Provita' web page in order to make available all resources created in the project. Alternatively, once the revision and translation process of documents generated during the ToC and communication workshops ends, we will share those on an open platform such figshare, zenodo, etc. We will also create a GitHub repository for data sharing, once those have been published. Also, although the cost for open access publications was not included in our budget, we will explore waivers, vouchers and other alternatives for covering articles processing charges in order for publications resulting from this project to be open access.

- Planned exit strategy: Our proposed exit strategy is still valid and we are actively searching for other sources of funding for our long-term commitment, as we have successfully done to date. The fact that our collaboration networks are at both institutional (i.e. aviculturist associations, community-based organisations such Ecoguardians and Red Siskin Specialists and Aviculturists Network) and personal level

will guarantee that in one hand, outputs achieved through this project could be used for these institutions long after the projects ends, and in another hand, values and social norms will be promoted by the personal commitment of the community leaders working in this project.

13.   IWT Challenge Fund identity

So far Provita has published two press releases of our project, and our project has been the object of 25 press releases from local and national online newspapers. Our team has participated in one international conference, as well as in five radio interviews in both national and international stations, and has developed more than a dozen meetings with local and international partners. In all these participation the UK Government's contribution 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.

14.   Impact of COVID-19 on project delivery

So far, our work plan has not been impacted by COVID19. Provita have implemented the policy of working from home since early 2020 with the majority of meetings occuring online. We also developed a protocol to conduct field work and community-related activities under COVID safe conditions for both staff and community members. Due part of the audience's campaign is overseas and also because our team is dispersed in different cities and even countries (the project leader is based in Australia) we will be continuing using virtual meetings and workshops for the rest of the project duration.

For the face to face activities planned for the other part of our audience, our team will follow the COVID safe protocol, including the use of biosecurity implements, work with small groups of people (< 30 people by event), and gatter in open spaces with plenty of air circulation. Provita will provide the biosecurity materials and implements to their staff (e.g. hands sanitiser, masks), however our current budget is not enough to cover this material for all participants.

15.   Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred ☐ during this financial year.

If you have answered yes, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

- We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse.
- Since January 2021, Provita has been implementing a system to keep a detailed register of safeguarding issues raised and how those were dealt with.
- All our staff starting in a new position go through a 15 days induction period, during which safeguarding policies, internal administratives and anti-corruption procedures and protocols for use of equipment and security recommendation during fieldwork are explained.

16.   Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (September 2021 - March 2022)

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual IWT Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	■	■	■	
Consultancy costs	■	■	■	
Overhead Costs	■	■	■	
Travel and subsistence	■	■	■	
Operating Costs	0	0		
Capital items (see below)	■	■	■	
Others (see below)	■	■	■	
TOTAL	**32.876**	**32.893**		

17.   OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

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

Provita was invited to the *II High-Level Conference of the Americas on Illegal Wildlife Trade*, organised by the Colombian and the UK governments, which took place during 5th and 6th April in Cartagena, Colombia. The conference aims to strengthen regional cooperation for prevention and control of illegal wildlife trade. Provita participated in two side events. In the first side event, *Strategies to reduce the demand for illegal trade in species*, our campaigns coordinator María Pineda, provided an overview of our project, highlighting aims and progress achieved so far. In the second side event *UK, Illegal Challenge Fund*, María shared our lessons learned for a successful IWTCF's application, and discussed what has meaning for a small, local organisation like Provita the support provided by IWTCF in terms of increased local capacity building, greater visibility of our research and actions, and increase of our working network.

Figure 9. Provita' participation at the II High-Level Conference of the Americas on Illegal Wildlife Trade (5th and 6th April in Cartagena, Colombia). The conference was organised by the Colombian and the UK governments **(a) (b)** María Pineda from Provita presented in side event "Strategies to reduce the demand for illegal trade in species", an overview of our project, highlighting aims and progress achieved so far. **(c)** Provita presented in the side event "UK, Illegal Challenge Fund" our lessons learned for a successful IWTCF's application. From left to right Calum Watt (DEFRA), Leila Mc Elvenne (IWTCF), María Daniela Pineda (Provita), and Kurt Duchez (WCS).
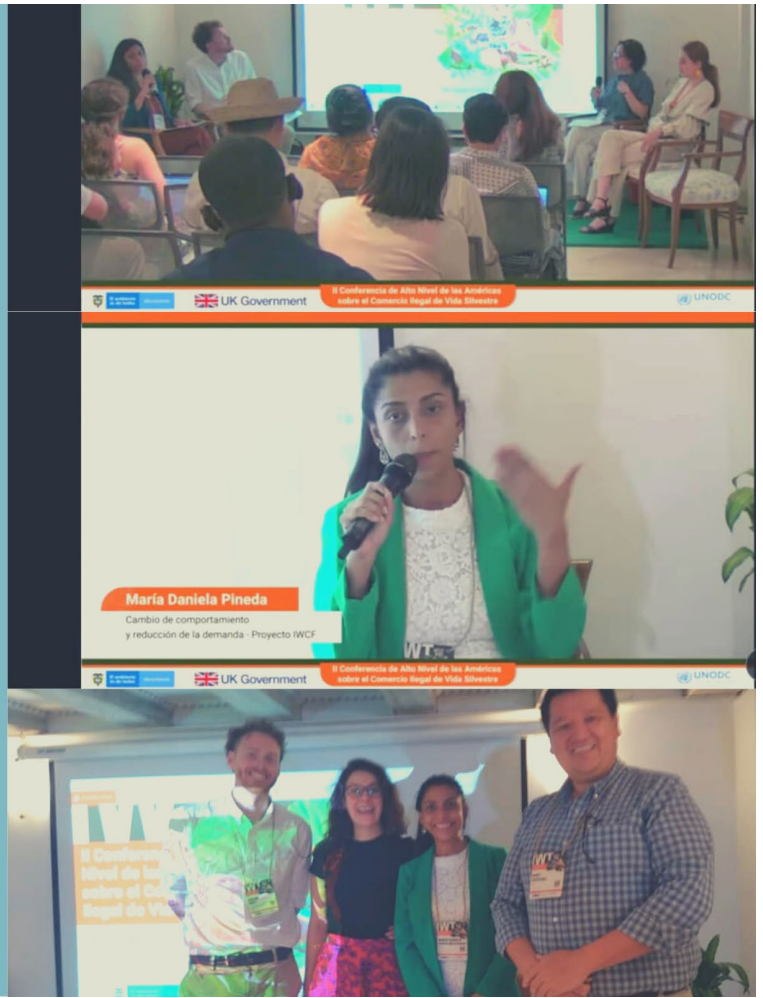
Annex 1:   Report of progress and achievements against Logical Framework for Financial Year 2021-2022

Project summary	SMART Indicators	*Progress and Achievements September 2021 - March 2022*	Actions required/planned for next period
Impact *Advance in the development of good practices for demand-reduction behaviour change campaigns and increase their taxonomic and geographic 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 demand of threatened bird species in South America. We attempt to do this by developing a 3 modules-toolkit presented for free, online, in Spanish and English. The delivery of the first module is programmed by Q2 but we already started as all the material, tools and guide we used to design our campaign will be part of these toolkits. - Evidence provided in section 3.1 of the report.* *- Due behaviour change campaigns for both focal species will be launched by the beginning of June 2022, the indicators monitoring the impact on human development and wellbeing (poverty reduction) have not been measured by the moment this report is issued - Evidence provided in section 3.5 of the report.*	
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*	O.1 Intentions to acquire wild-caught birds in focal audiences measured through interviews, decrease 30% by 2023 in relation to the baseline in 2020 (baseline = 35 - 40% in YSA; 40 - 50 % in RS).	*- Intention to acquire wild-caught RS among interviewed breeders was low (mean = 1.43, SD = 0.89, N = 164; measured in Likert scale) - Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.* *- Intention to acquire wild-caught YSA among interviewed people from Macanao was low (mean = 1.74, SD = 0.100, SE = 0.09, N = 196; measured in Likert scale) - Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.*	*- Campaigns will be launched by June 2022 and will focus on keeping low values of intentions to acquire wild-caught birds.* *- Next measure of behaviour indicators planned by Q3 2023.*

region.			
	O.2 60% of participants in core activities (disaggregated by gender and age) with increased knowledge, positive attitudes and communication levels, measured through interviews in 2022 and 2023 in relation to the baseline level measured in Q2 - 2021.	*Values pre campaign for the YSA - Evidence provided in section 3.3 of report (data disaggregated by age and gender) and Supporting material > Baseline behaviour indicators > R code.* *- Knowledge level measured as prevalence of wrong answers regarding benefits of adopting the alternative behaviour proposed by the campaign was 41%.* *- Attitudes: measured in Likert scale across all the groups within the audience (mean = 3.85, SD = 0.585, N = 198).* *- Social norms: measured in Likert scale across all the groups within the audience (mean = 3.13, SD = 0.572, N = 198).* *- Moral norms: measured in Likert scale across all the groups within the audience (mean = 4.21, SD = 0.802, N = 191).* *- Perceived control: measured in Likert scale across all the groups within the audience (mean = 3.19, SD = 0.610, N = 196).* *Values pre campaign for the RS - Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.* *- Knowledge level measured as prevalence of wrong answers regarding benefits of adopting the alternative behaviour proposed by the campaign was 17%.* *- Attitudes: measured in Likert scale across all the groups within the audience (mean = 3.62, SD = 0.998, N = 137).* *- Social norms: measured in Likert scale across all the groups within the audience (mean = 3.88, SD = 0.968, N = 137).* *- Moral norms: measured in Likert scale across all the groups within the audience (mean = 4.34, SD = 0.839, N = 79).* *- Perceived control: measured in Likert scale across all the groups within the audience (mean = 3.55, SD = 0.705, N = 112).*	*- Campaigns will be launched by June 2022. For YSA we will focus on increasing attitudes and perceived control levels by 60% particularly in young women and older people. For the RS our campaign will be focus on increasing perceived moral norms levels by 60% particularly in young breeders.* *- Participation list and satisfaction questionnaire will be implemented after each core activity* *- Next measure of behaviour indicators planned by Q3 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).	*For the YSA campaign - Evidence provided in section 3.3 of report.* *We created the Facebook (https://www.facebook.com/Cielo-Verde-104056735600629/photos) and Instagram (@cieloverde.1) pages for the Green Sky campaign.* *For the RS campaign - Evidence provided in section 3.3 of report.* *We created the Facebook (https://www.facebook.com/Anidando-Futuro-102769012356070/) and Instagram (@anidando_futuro) pages for the Nesting Future campaign.*	*- This indicator will be measured after June 2022, when campaigns have been launched.*

	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).	*This indicator will be measured after June 2022 when the campaigns have been launched.*	*- This indicator will be measured after June 2022, when campaigns have been launched.*
	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.	*This indicator will be measured during Q1 2022 - Evidence provided in section 3.1 of report.*	
	O.6 The proportion of wild-caught birds kept as pets is similar or lower by 2023 in relation to the baseline (YSA base line = 30% in 2019 and RS base line = 9% in 2018).	***For YSA -*** *Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.* *- 17% of the interviewed people in Macanao (N = 204) declared they currently keep YSA.* ***For RS*** *- Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.* *- 44% of the interviewed breeders (N = 169) declared they currently keep RS.*	
Output 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).	*Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period.*	*Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period.*
	1.2 Attendance records for 100% of core and recreational activities in 2022 and 2023 disaggregated by gender and age (baseline = 0).	*Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period.*	*Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period.*
	1.3 60% of participants in core and recreational activities surveyed about perceived empowerment, participation, and leadership (baseline = 0%).	*Campaigns will be launched by June 2022 (Q1 2022), so this indicator remains at zero for this reporting period.*	We already developed a satisfaction questionnaire, which also evaluates participants' perceived empowerment, participation, and gained leadership (Supporting material > Satisfaction questionnaire).
	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 YSA*** *- Evidence provided in 3.1 of the report and in Supporting material > Baseline behaviour indicators > R code.* *- Surveys assessing behavioural indicators reached 56% of the established sampling size determined for the YSA audience's campaign* ***For the RS*** *- Evidence provided in 3.1 of the report and in Supporting material > Baseline behaviour indicators > R code.* *- Surveys assessing behavioural indicators reached 35% of the established sampling*	- With an answer rate of 6.8 answers/day, we expect to reach the remaining 166 answers required to measure the baseline for the RS' campaign by the end of April (23 days = 362 - 204 / 6.8). - With an overall answer rate of 5.6 answers/day, we expect to reach the remaining 311 answers

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		size determined for the RS audience's campaign	required to measure the baseline for the RS' campaign by middle of May (56 days = 480 - 169 / 5.6).
	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.	*Same status as reported for indicator 1.4.*	*Same status as reported for indicator 1.4.*
	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.	*Same status as reported for indicator 1.4.*	*Same status as reported for indicator 1.4.*
	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.	*This indicator has not been measured and will be reported in the next annual yearly report - Evidence provided in 3.1 of the report*	The YSA' breeding started in late May 2022 and currently our team is coordinating with Ecoguardians to measure nest poaching in the Characacual Conservation Community Area (CCCA).
	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.	*Measuring this indicator is delayed - Status described in 3.1 of the report.*	We expect to get the baseline (pre-campaign) estimations by the end of June 2022.
Activity 1.1 Campaign design, including development of the Theory of Change, audience segmentation and messages design.		*We achieved our milestone of getting the documents describing the Theory of Change (ToC) finalised by Q4 2021- Evidence provided in section 3.1 of report and Supporting material > Theory of change & Resources for campaigns workshops*	- We will use the material developed as input for the module 1 of the toolkits (Output 2). - We will be checking the assumptions of our ToC against evidence getting with satisfaction questionnaires and attendance list.
Activity 1.2 Pilot study to test communication strategy.		*We achieved our milestone of getting by Q4 2021 a communication plan for the campaigns adapted according to learned lessons - Evidence provided in section 3.1 of report and Supporting material > Communication plan & Resources for campaigns workshops.*	- We will use the material developed as input for the module 1 of the toolkits (Output 2). - We will be implementing the monitoring approach proposed in the communication plan and updating

		our strategies according the indicators trend.
Activity 1.3 Design of campaign activities.	*We reached 50% of our milestone of getting 10 core activities with descriptive sheets ready by Q4 2022 - Evidence provided in section 3.1 of report and Supporting material > Core activities.*	We expect to finish the remaining descriptive sheets before the campaigns launch in June 2022 (Q1 2022).
Activity 1.4 Measurement of baseline behaviour indicators.	*- Surveys assessing behavioural indicators and self reported keeping behaviour reached 56% of the established sampling size determined for the audience of the YSA campaign - Evidence provided in section 3.1 of report and Supporting material > Baseline behaviour indicators > R code.* *- Surveys assessing behavioural indicators and self reported keeping behaviour reached 35% of the established sampling size determined for the audience of the RS campaign - Evidence provided in section 3.1 of report and Supporting material > Baseline behaviour indicators > R code.*	- With an answer rate of 6.8 answers/day, we expect to reach the remaining 166 answers required to measure the baseline for the RS' campaign by the end of April (23 days = 362 - 204 / 6.8). - With an overall answer rate of 5.6 answers/day, we expect to reach the remaining 311 answers required to measure the baseline for the RS' campaign by middle of May (56 days = 480 - 169 / 5.6). - Next measurement planned by Q3 2022.
Activity 1.5 Implementation of core and recreational activities.	*Campaigns will be launched by June 2022 (Q1 2022). We developed a detailed timeline of specific activities for each campaign - Evidence provided in section 3.1 of report and Supporting material > Theory of Change > Theory of change_Red Siskin_EN_20220411 & Theory of Change_Yellow Shouldered Amazon_EN_20220413.*	- Launching period for both campaigns will last two months to positioning campaigns images among audiences. - Insights from pre campaign evaluation will be incorporated into the core activities. - After the launching period we will start our communication campaign, followed by core activities.
Activity 1.6 Measuring changes in participation behaviours.	*- This indicator remains at zero for this reporting period.* *- We developed a satisfaction questionnaire, which also evaluates participants' perceived empowerment, participation, and gained leadership - Evidence provided in section 3.1 of report and Supporting material > Core activities > Satisfaction questionnaire_ES_20211010.*	- Implementation of core activities. - Application of satisfaction questionnaire after each activity.
Activity 1.7 Measuring changes in intermediary behavioural outcomes.	*This indicator remains at zero for this reporting period.*	- Measurement planned by Q3 2022.

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Activity 1.8.1 Measuring changes in the number of YSA kept as pets (self reported behaviour YSA)		*Same status as reported for activity 1.4 - Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.*	- Measurement planned by Q3 2022.
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)		*Same status as reported for activity 1.4 - Evidence provided in section 3.3 of report and Supporting material > Baseline behaviour indicators > R code.*	- Measurement planned by Q3 2022.
Activity 1.8.3 Measuring changes in nest poaching (direct observed behaviour YSA)		The YSA' breeding started in late May 2022 and currently our team is coordinating with Ecoguardians to measure nest poaching in the Characacual Conservation Community Area (CCCA). Two Ecoguardians, Gabriel León and Eusebio Millán, who already participated in the design campaign workshops, have been appointed to work with our team to develop this monitoring - Evidence provided in section 3.1 of report.	- We expect to complete this activity in time by the end of June 2022 (Q1 2022).
Activity 1.8.4 Measuring changes in traded bird rate (direct observed behaviour RS)		- This activity is delayed by 3 months. The delay occurred due difficulties in recruiting volunteers to implement this monitoring. - We updated the monitoring protocol used in previous research [5] with the IWTAG's observations about how the project will address the potential issue of differentiating between wild caught and captive-bred individuals - Evidence provided in section 3.1 of report and Supporting material - Protocols for monitoring traded bird rate.	- We are searching for suitable candidates and expect to start their training by the end of April 2022, so we can start the monitoring by May 2022 (Q1 2022). - We expect to get the baseline (pre-campaign) estimations for the indicator 1.8 by the end of June.
Output 2. Online tools and guides to design, implement and monitor robust best practice demand-reduction behaviour change campaigns freely available in Spanish and English.	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).	- This indicator remains at zero for this reporting period.	- We started the updating process of the Provita' web page in order to make available these resources.
	2.2 80% of partners' web pages with links and news promoting toolkits links (baseline = 0).	- This indicator remains at zero for this reporting period.	- We started the updating process of the Provita' web page in order to make available these resources.
	2.3. Altmetric and citation-based metrics of the toolkits increased by 200% by the end of 2022 and 4000% by 2023 (baseline = 0).	- This indicator remains at zero for this reporting period.	- We started the updating process of the Provita' web page in order to make available these resources.
Activity 2.1 Toolkit - Module 1 development.		- This activity will start in April 2022 (Q1). - However we already defined the content of this module, which comprises six chapters and started the updating process of the Provita' web page in order to make available these resources - Evidence provided in section 3.1 of report.	- Content development for each chapter. - Diagramation of tools already developed. - Translation to English. - Diagramation.

Activity 2.2 Toolkit - Module 2 development.	This activity will start in Q4 2022-2023.		
Activity 2.3 Toolkit - Module 3 development.	This activity will start in Q3 2023.		

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

N.B. if your application's logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact IWT-Fund@ltsi.co.uk if you have any questions regarding this.

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
Impact: Advance in the development of good practices for demand-reduction behaviour change campaigns and increase their taxonomic and geographic scope.			
Outcome: Systematic demand reduction campaigns lead to a reduction in illegal wild bird trade, local people increase intentions to engage in sustainable use, and new guidelines are available for the region.	O.1 Intentions to acquire wild-caught birds in focal audiences measured through interviews, decrease 30% by 2023 in relation to the baseline in 2020 (baseline = 35 - 40% in YSA; 40 - 50 % in RS). O.2 60% of participants in core activities (disaggregated by gender and age) with increased knowledge, positive attitudes and communication levels, measured through interviews in 2022 and 2023 in relation to the baseline level measured in Q2 - 2021. 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.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 GitHub repository. O.2 Published articles in peer-review journals; GitHub 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.	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.

	O.4 Percentage of the scope with positive values (sentimetric analysis) related to the campaign messages posted in social media (Facebook, Twitter, Instagram and WhatsApp) in 2022 and 2023 (YSA baseline = 50%; 750 likes/1,500 people by October 2020; RS baseline = 0). O.5 Detected YSA nest poaching rate in surveilled nest sites (baseline = 5 - 10% in the last 5 years) and RS trade rate (368 individuals/year by 2017) in 2020 and 2023. O.6 The proportion of wild-caught birds kept as pets is similar or lower by 2023 in relation to the baseline (YSA base line = 30% in 2019 and RS base line = 9% in 2018).	O.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 GitHub repository. O.6 Internal reports and published articles in peer-review journals about overall campaigns performance.	
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 GitHub. 1.4 Database/Datasheet with the questionnaire answers available in GitHub. 1.5 Database/Datasheet with the questionnaire answers available in GitHub. 1.6 Database/Datasheet with the questionnaire answers available in GitHub. 1.7 Database/Datasheet with the number of YSA's nest poaching events available in GitHub. 1.8 Database/Datasheet with the number of traded RS events available in GitHub.	- People from Margarita communities and domestic and international songbirds breeders communities will continue to be willing to participate in our study. - Interviewee will be guaranteed anonymity, so we do not expect them to provide false or biassed answers. - We expect that participants will feel comfortable completing questionnaires and participating in campaign activities. - There will be sufficient political stability, and no lock-down as response to COVID to hold core activities. - Internet and power services will be stable enough to allow online workshops, questionnaires and staff virtual meetings. - We believe that our partners will also help us reach the audience.

2. Online tools and guides to design, implement and monitor robust best practice demand-reduction behaviour change campaigns freely available in Spanish and English.	2.1 The 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 recommendations records.	- Partners will be willing to promote the toolkits in their web pages.

Annex 3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
18A	Number of individuals surveyed on relevant IWT behaviour pre-intervention (baseline)	Female = 3 (RS); 147 (YSA) Male = 165 (RS); 52 (YSA) Other = 1 (RS); 5 (YSA)	Brasil 78 (RS) Spain & Portugal 42 (RS) Venezuela 49 (RS); 204 (YSA)	373	842		373	1215
18D	Number of communication channels carrying campaign message	**Nesting Future campaign** - Facebook (https://www.facebook.com/Anidando-Futuro-102769012356070/) - Instagram (@anidando_futuro) **Green Sky campaign** - Facebook (https://www.facebook.com/Cielo-Verde-104056735600629/photos) - Instagram (@cieloverde.1)		4	4		4	4
21C	Number of other publications produced	- Pineda-Maldonado, M. D., Cardozo-Urdaneta, A. Morán, L. Moya, F. Sánchez-Mercado, A. (2021). Teoría de Cambio para reducir la demanda de aves silvestres. Cardenalito y Cotorra cabeciamarilla como casos de estudio. Provita, Caracas. - Ada Sánchez-Mercado, Lisandro Morán, Arlene Cardozo-Urdaneta, María Daniela Pineda, Félix Moya (2022). Plan de comunicación para las campañas de cambio de comportamiento enfocadas en reducir la demanda del Cardenalito y la Cotorra cabeciamarilla. Provita, Caracas. - María Daniela Pineda, Félix Moya, Ada Sánchez-Mercado (2022). Medición de indicadores de comportamiento de línea base		4	12	0	4	16

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		para la campaña Cielo Verde, Cotorra cabeciamarilla. Protocolo de implementación. Provita, Caracas. - Arlene Cardozo, Lisandro Moran, Ada Sánchez-Mercado (2022). Medición de indicadores de comportamiento de línea base para la campaña Anidando Futuro, Cardenalito. Protocolo de implementación. Provita, Caracas.							
23	Estimated value (£) of physical assets to be handed over to host country(ies)	£448		4	0	0	4	4
26B	Number of conferences/seminars/ workshops attended at which findings from IWT project work will be presented/ disseminated	- Pineda, M. D., Sánchez-Mercado, A. (2022). Volando juntos: Cambio de comportamiento para reducir la demanda en el tráfico ilegal de aves venezolanas (IWT102) Estrategias para reducir la demanda de comercio ilegal de especies. II Conferencia de Alto Nivel de las Américas sobre el Comercio Ilegal de Vida Silvestre. 5 y 6 de abril de 2022, Cartagena de Indias, Colombia. - Pineda, M.D., Sánchez-Mercado, A. (2022). Volando juntos: Cambio de comportamiento para reducir la demanda en el tráfico ilegal de aves venezolanas (IWT102) Lecciones para una postulación exitosa y experiencia con el Challenge Fund. II Conferencia de Alto Nivel de las Américas sobre el Comercio Ilegal de Vida Silvestre. 5 y 6 de abril de 2022, Cartagena de Indias, Colombia.		2	1	0	2	3
26C	Number of individual media articles featuring the project	32 see details in Supporting material > Communications Conferences & Publications Record_IWT102_20220422		32	40	40	40	112

IWTCF Annual Report Template 2022

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)
Teoría de Cambio para reducir la demanda de aves silvestres. Cardenalito y Cotorra cabeciamarilla como casos de estudio.	Manual	Pineda-Maldonado, M. D., Cardozo-Urdaneta, A. Morán, L. Moya, F. Sánchez-Mercado, A. (2021).	Female	Venezuelan	Provita, Caracas.	Provita, Caracas.
Plan de comunicación para las campañas de cambio de comportamiento enfocadas en reducir la demanda del Cardenalito y la Cotorra cabeciamarilla.	Manual	Ada Sánchez-Mercado, Lisandro Morán, Arlene Cardozo-Urdaneta, María Daniela Pineda, Félix Moya (2022).	Female	Venezuelan	Provita, Caracas.	Provita, Caracas.
Medición de indicadores de comportamiento de línea base para la campaña Cielo Verde, Cotorra cabeciamarilla. Protocolo de implementación. Provita, Caracas.	Manual	María Daniela Pineda, Félix Moya, Ada Sánchez-Mercado (2022)	Female	Venezuelan	Provita, Caracas.	Provita, Caracas.
Medición de indicadores de comportamiento de línea base para la campaña Anidando Futuro, Cardenalito. Protocolo de implementación. Provita, Caracas.	Manual	Arlene Cardozo, Lisandro Moran, Ada Sánchez-Mercado (2022).	Female	Venezuelan	Provita, Caracas.	Provita, Caracas.

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

We are attaching a Supplementary material folder which contains the following documents:

Folder name	Sub folder name	File name	Language	Description
Baseline behaviour indicators	-	USB Bioethics Committee Aval Letter_ES_20211216.pdf	Spanish	Aval letter from the Bioethics Committee of the Universidad Simón Bolívar for the questionnaires and protocols to assess baseline indicators.
Baseline behaviour indicators	Protocols	Protocol for questionnaires implementation_RS_ES_20220222.pdf	Spanish	Protocol for the questionnaire implementation to measure baseline behavioural indicators for the Red Siskin campaign Nesting Future.
Baseline behaviour indicators	Protocols	Protocol for questionnaires implementation_YSA_ES_20220222.pdf	Spanish	Protocol for the questionnaire implementation to measure baseline behavioural indicators for the Yellow-shouldered Amazon campaign Gree Sky.
Baseline behaviour indicators	R code	respuestas_cardenalito.csv	Spanish	Table with the answers from the questionnaires measuring baseline behavioural indicators for the Red Siskin campaign Nesting Future - As exported from SurveyMonkey
Baseline behaviour indicators	R code	respuestas_cotorra.csv	Spanish	Table with the answers from the questionnaires measuring baseline behavioural indicators for the Yellow-shouldered Amazon campaign Green Sky - As exported from SurveyMonkey and KoBo.
Baseline behaviour indicators	R code	cardenal.csv	Spanish	Table with the answers from the questionnaires measuring baseline behavioural indicators for the Red Siskin campaign Nesting Future - Clean format to use in R code.
Baseline behaviour indicators	R code	cotorra.csv	Spanish	Table with the answers from the questionnaires measuring baseline behavioural indicators for the Yellow-shouldered Amazon campaign Green Sky - Clean format to use in R code.
Baseline behaviour indicators	R code	sesion1_cleanning data.Rmd sesion1_cleanning data.pdf	Spanish	Script describing the steps to clean the data from questionnaires to use in R code.
Baseline behaviour indicators	R code	sesion2_baseline_results.Rmd sesion2_baseline_results.pdf	English	Script describing the steps to calculate the outputs and outcome indicators for the project based on questionnaires measuring baseline behavioural indicators. The script also includes a general results description.

Collaboration agreement letters	-	Collaboration agreement letter_Escuela Básica Antonio José de Sucre.png	Spanish	Informal collaboration agreement letter from the Primary School Antonio José de Sucre in Robedal, Macanao.
	-	Collaboration agreement letter_Provita-MacanaoCouncil_20220216	Spanish	Formal collaboration agreement letter from the Macanao Council.
Core activities	-	Satisfaction questionarie_ES_20211010.pdf	Spanish	Draft of the questionnaire that will be used to measure participants' perceived empowerment, participation, and gained leadership
Core activities	Core activities_RS	Ficha de actividades_Talleres_ES_20220405.pdf Ficha de actividades_Foros en línea_ES_20220405.pdf	Spanish	Descriptive sheets for the workshops and forum to be developed as part of the campaign Nesting Future.
Core activities	Core activities_YSA	Ficha actividades_Gincana_ES_20220412.pdf Ficha Cineforo_ES_20220421.pdf Ficha Lotería de Animalitos_ES_20220421.pdf	Spanish	Descriptive sheets for the complementary activities forum cinema, lottery, and ecological gymkhana to be developed as part of the campaign Green Sky.
Figures	-	Figure 1 - Figure 8.png	English	Figures included in the report.
Protocols for monitoring traded bird rate	-	Protocol monitoring trade rate_RS_ES_20220315.pdf	Spanish	Document describing the steps to record the number of events of offers, demand, possession, and exchange of Red Siskin in Facebook as a way of measuring trade rates.
Resources for campaigns workshops	-	Hypothesis communication networks.pdf	Spanish	Diagram describing the hypothesis about how current communications occur within the focal audiences in both campaigns.
Resources for campaigns workshops	-	Infography_Parrot trade.pdf	Spanish	Infographic describing the social dynamic and demand motivations for the Yellow-shouldered Amazon in Macanao. Information based on the publications of Sánchez-Mercado et al. 2020, 2021.
Resources for campaigns workshops	-	Miro template_Communication plan.pdf	Spanish	Template of the exercises done during the communication plan workshop as implemented in Miro platform.
Resources for campaigns workshops	-	Miro template_ToC workshop.pdf	Spanish	Template of the exercises done during the theory of change workshops as implemented in Miro platform.

Resources for campaigns workshops	-	Presentation_Behavior campaign concepts and strategies20210923	Spanish	Slides describing the basic concepts and strategies to develop behaviour change campaigns based on social marketing used as supporting material for the theory of change workshops.
Theory of Change	-	Theory of Change_Yellow Shouldered Amazon_EN_20220413	English	Spreadsheet with tables describing the audience segmentation, evaluation of alternative behaviour, theory of change, and campaign activities timetable for the Yellow-shouldered Amazon's campaign, Green Sky
Theory of Change	-	Theory of change_Red Siskin_EN_20220411	English	Spreadsheet with tables describing the audience segmentation, evaluation of alternative behaviour, theory of change, and campaign activities timetable for the Red Siskin's campaign, Nesting Future.
Theory of Change	-	Theory of Change Workshop Report_ES_20220421.pdf	Spanish	Document describing exercises developed during the workshops to build the Theory of Change for the Yellow-shouldered Amazon and Red Siskin behaviour change campaigns.
Theory of Change	-	Miro_ToC_Parrot campaign_ES_20211112.pdf Miro_ToC_Red Siskin campaign_ES_20211112.pdf	Spanish	Snapshot of the exercises completed by participants in the theory of change workshop for the Yellow-shouldered Amazon and the Red Siskin.
Annex 1_Report of progress and achievements against Logical Framework	-	Annex 1_Report of progress and achievements against Logical Framework	English	Spreadsheet describing progress and achievements against Logical Framework - Annex 1 including in this report.
Annex 2_Project's full current logframe_IWT102 Provita_20211119		Annex 2_Project's full current logframe_IWT102 Provita_20211119	English	Spreadsheet describing project Logical Framework - Annex 2 including in this report.
Annex 3_Standard Measures	-	Annex 3_Standard Measures	English	Spreadsheet describing standard measure indicators and documents generated by the project - Annex 3 including in this report (Table 1 and Table 2).
Communication plan_Behavior Change Campaigns_ES_20220406	-	Communication plan_Behavior Change Campaigns_ES_20220406	Spanish	Document describing the communication plan for the behaviour changes campaigns.
Communications Conferences & Publications Record_IWT102_20220422	-	Communications Conferences & Publications Record_IWT102_20220422	Spanish	Spreadsheet compiling the record of communication effort, conference attendance, and publications developed in the project - This information supports standard measures reported in Table 1.
References list_IWT-AYR1_IWT102	-	References list_IWT-AYR1_IWT102	English	Reference list of the cites used across this report.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	X
Is the report less than 10MB? If so, please email to IWT-Fund@ltsi.co.uk putting the project number in the subject line.	NA
Is your report more than 10MB? If so, please discuss with IWT-Fund@ltsi.co.uk about the best way to deliver the report, putting the project number in the subject line.	X
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
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.	NA
Have you involved your partners in preparation of the report and named the main contributors	NA
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	