

Darwin Initiative Main: Annual Report

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

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

Submission Deadline: 30th April 2023

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

Darwin Initiative Project Information

Project reference	DIR28S2\1070 29-010
Project title	Community conservation of critically endangered Hawksbill turtles in Nicaragua
Country/ies	Nicaragua
Lead Partner	WCS
Project partner(s)	5 Fishing Community of Pearl Lagoon basin
Darwin Initiative grant value	£307,268.00
Start/end dates of project	
Reporting period (e.g. Apr 2022 – Mar 2023) and number (e.g. Annual Report 1, 2, 3)	April 2022 -March 2023, annual report 1.
Project Leader name	Karen Joseph [REDACTED]
Project website/blog/social media	www.wcs.org
Report author(s) and date	Edgard Herrera 30/4/2023 Karen Joseph 30/4/2023 Marla Arrazola 30/4/2023

1. Project summary

Pearl Cays is an archipelago located on Nicaragua’s Caribbean coast. Declared a wildlife refuge in 2010, it is a pivotal hawksbill turtle rookery, believed to be the largest remaining nesting population in the west-central Caribbean (Lagueux et al, 2003; Campbell et al, 2012). Hawksbill are classified as critically endangered by IUCN due to over-exploitation of adult females and eggs on nesting beaches, degradation of nesting and marine habitats, poaching of juveniles and adults in foraging areas for their meat and their carapace (or upper shell) used for jewellery, and incidental mortality relating to marine fisheries (Meylan and Donnelly 1999).

Our project was designed for the protection of hawksbill marine turtle (*Eretmochelys imbricata*) nesting and foraging areas in the Pearl Cay Wildlife Refuge (PCWR) . This will further the efforts of a historically successful initiative that has guaranteed the protection of 8,996 nests and the release of 654,851 hatchlings over the last 11 years, making a fundamental contribution to the long-term survival of this critically endangered species. The project partnered with four key fishing communities to improve their sustainable livelihoods for local communities. The provision of

staple food seeds and cash crops and the reactivation of a community tourism enterprise will increase food security and improve local sources of income, building local resilience to the pandemic, extreme climatic events, as well as the socio-political situation in Nicaragua, and thus ensuring stronger protection efforts for hawksbill turtles.

2. Project stakeholders/ partners

WCS project team engaged and negotiated with Pearl Lagoon Territorial Government representing 10 communities of the basin the execution of this project. As a result, WCS and the Pearl Lagoon Territorial Government of 10 community of Pearl Lagoon Basin signed a letter of Agreement that support Conservation activities/actions toward Turtles and other marine animals. This letter of agreement was also signed by leaders of the 4 individual communities that received direct benefit of this project whit basic grains – legumes (rice and beans) Musaceae (plantain) and chicken. (See Annexes 4.1 and 4.2)

3. Project progress

3.1 Progress in carrying out project Activities

The 2021-2022 nesting season had been a challenging season, combining turtle nesting monitoring and protection with improving livelihoods within participant communities. The 2021-2022 seasonal monitoring period have been executed successfully, protecting and increasing the number of nests and hatchlings, a fundamental conservation step to the long-term survival of Hawksbill turtle, a critically endangered species.

So far, we managed to carry out our data collection on nest on the Pearl Cays Wildlife Refuge (PCWLR) as result our teams manage to record 782 new nests,11 nest more than the 2021 season; 2.05% poached nest (16 nests), and conclude with a 97.95 % of protection. Team has completed 1,332 cays surveys, on average of 6 to 7 cays visited per day. All 9 nesting beached have been protected and systematically patrolled; 264 nest washed away and destroyed due to natural causes (hurricane Julia) equivalent to 33.76%. 61,759 eggs were counted from remained nests, 38,004 eggs successfully hatched with 51.54% of hatchling released to the ocean. (Percentage based on 50% empty eggshell of 494 remained nests excavated).

On educational activities, pupils from secondary schools and marine Biology students have been trained on field techniques on turtle monitoring and conservation activities. One Community territorial Government workshop was done also in Pearl Lagoon. We have had delays on these activities due to government reluctance to provide permits for these activities. WCS recently obtained permission to carry additional workshops and we hope to catch up with this activities during 2023.

Livelihood activities: Four communities improved their sustainable livelihoods after being hit by climatic events that affected their food security. One agriculture extensionist was hired, 8 field trips have been carry out 2 in each community. Certified seeds were purchase and distributed to families of four communities exceeding our expectations. Seeds were fully accepted by communities' members. 8 patrollers were hired for the turtle monitoring season. A socio-economic survey had initiated not concluded so far.

3.2 Progress towards project Outputs

All 9 nesting beaches located in the PCWR have been systematically patrolled.

782 new turtle clutches were protected and recorded, achieved 97.96 % of protection, only 16 nests equivalent to 2.04% were poached.

Name Cays/beach	number of nests	% of nest per cay
Wc (Wild)	253	32.35
Wa (Water)	209	26.73
Cr (Crawl)	109	13.94
Ba (Baboon)	94	12.02
Gr (Grape)	49	6.27
Li (Lime)	46	5.88
Co (Collumbila)	22	2.81
Total	782	100

264 nest were washed away, lost due to natural causes (hurricane Julia) equivalent to 33.76% of lost nests.

Team had 10 encounters, 7 turtles had already been tagged, team tagged 3 turtles.

38,004 hatchlings successfully released to sea.

112 secondary students had participated in workshops about turtle conservation activities.

13 Marine Biology Students have received technical training on field with hawksbill monitoring working team.

329 families (1,645 persons) improved their livelihood activities, they had received seeds (beans and rice), plantain according to seasonal planting, crops have been following up by hired field technician, all beneficiaries have harvested their crops, the results were satisfactory.

3.3 Progress towards the project Outcome

- For this 2022 season, 782 new turtle clutches recorded on the PCWLR, achieved 97.96 % of protection, only 2.04% of nest were poached by fishers.
- We Considered that all indicators were adequate for measuring our outcome. Hopefully we can have an increase in this coming 2023 season. According to our annual outcome we reach 100%
- 4 conservation agreement were presented to communities' members and signed by community's leaders of the 4 beneficiary communities. (see annexes 4.1 and 4.2)
- 1 conservation agreement was presented to the Territorial board leaders of the 10 community of the Pearl Lagoon basin, that compromise leaders and community for working together toward the turtle conservation activities in Territory. Considered 100% outcome achieved.
- 329 families improved their livelihood activities. (see annex 4.3, list of signatures from beneficiaries of sustainable livelihoods activities).

Monitoring of assumptions

0.1.1 Fishing community members continue supporting the project. This assumption keeps its validity. Communities have received well the project and had provided the necessary support. Local government has also welcomed this project since it includes an important component for poverty alleviation.

0.1.2 Local authorities in Nicaragua continue supporting the project. Although we have faced delays on governmental's permits to execute projects activities, these comes from Central Government policies. We have received the support of regional and territorial governments which in turn have helped us to overcome Central Government reluctance to issue permits. We can therefore state that this assumption remains valid.

0.1.3 Patrolling system is correctly implemented, and community patrollers are able to detect, retain, and tag/release nesting females in a systematic and accurate way. The patrol system is being correctly implemented.

0.2.1 Students and key stakeholders attend workshops, talks and participates in field trips. Students have participated in field trips, talks and workshops. This activity remains valid

0.2.2 Covid situation enables project to carry out in-person meetings and gatherings COVID situation have improved and therefore we were able to carry out in person activities.

0.3.1 benefited families provide accurate information to interviewers during field data collection. We are still gathering information and analyzing results, and we believe this assumption remains valid

0.3.2 Survey data is correctly processed and reflects accurately People's answers Still work in progress. We believe this assumption remains valid

1.1 Climatic variability does not seriously affect nesting grounds and patrols are able to deploy within the cays during the entire nesting season. Patrols have been able to carry out their duties protecting nesting beaches and turtles. Climatic conditions have diffculted sea transportation only during short periods of times (during bad weather) causing some delays but not in a critical way.

1.2 National Authorities continue supporting the patrols and act when poachers are identified by community patrollers. . Despite complicated sociopolitical situation in Nicaragua, authorities at a local level continue supporting our project and have signed an agreement with WCS for the execution of activities under this initiative. We have had delays obtaining permits for educational workshops but we have overcame this aspects and we are ready to resume activities during 2023.

1.3 Data is correctly and systematically recorded by community patrollers. This assumption remain valid

2.1 Students are open to learning and changing their behavior and attitudes towards hawksbill marine turtles. We believe this assumption remains valid. Final indicators of the project will shed some light on this issue when we interview people in the benefited communities to assess their attitudes towards marine turtle conservation

2.2 COVID conditions in the country allows WCS to carry out gathering and meetings with key stakeholders . We have been able to carry out gathering and meetings with key stakeholders.

3.1 Families accept to release hawksbill turtles bycatch and to stop hunting and selling of hawksbill carapaces in exchange for agricultural or small patio animal husbandry inputs. Families attend extensionists training and apply his/her indications We have not fully tested this assumption but initially we have signed agreements with local territorial indigenous government where the community assumes the commitment to release turtles in exchange of our support, this was a good first step that shows positive interest in accomplish this deal properly

3.2 Locally improved seeds, adapted for climatic conditions of Pearl Lagoon Basin are available to purchase when needed. This assumption was correct. We found locally improved seeds adapted for the area.

3.3 Community members are willing to participate in the project and be hired. We found enthusiastic persons and leaders among the communities, eager to participate and to be hired, so we consider this assumption valid.

3.4 The sociopolitical and pandemic situation allows visitation to Pearl Cays to continue throughout the year. We believe this assumption remains valid.

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

Pearl Cays is an archipelago located on Nicaragua's Caribbean coast. Declared a wildlife refuge in 2010, it is a pivotal hawksbill turtle rookery, believed to be the largest remaining nesting population in the west-central Caribbean (Lagueux et al, 2003; Campbell et al, 2012). Hawksbill are classified as critically endangered by IUCN due to over-exploitation of adult females and eggs on nesting beaches. Before WCS began its conservation efforts in the Pearl Cays in 2000, 88% of hawksbill eggs and meat were harvested by impoverished community fishers as a source of income or protein. With support from WCS, community education increased, and community patrollers were protecting more than 93% of hawksbill annual nesting areas, with a peak of 1,015 protected nests in 2019. For this 2022 only 2.04% of nests are poached. Meat consumption and carapace collection have been greatly reduced, due to increased surveillance, education, and awareness campaigns focused on local fishers in coastal communities and key population centres in the region. Communities' leaders are working in coordination with WCS to conserve and protect their resource on PCWLR.

The acquisition and distributions of improved seeds to the 4 community has impacted the communities and the project positively, it had reduced the pressure on the turtle resource since they have dedicated themselves to planting and harvesting the seeds provided by the project, which have given good results in the field. (see Annex 4.4, photos of agricultural activities). For example, in Nicaragua, the average yield in an area of 0.70ha the producer can harvest an average is between 16-25 quintales (a quintal equals 100 pounds). For our livelihood project, of each 20 pounds of seeds given to our beneficiaries, there was an average yield of 3 to 6 quintal of beans. According to these, part of the production was destined for sale, some families save some to plant for the next cycle and the other part for food as source of protein. As for the planting of rice, producers are waiting for the month of June, considered the best month for planting. Likewise, they consider that the bananas corms received have also been the best, although the results of this will be seen in a few months. These sustainable livelihood activities implemented by WCS with Darwin funds have significantly improved the economy and well-being of many families, they express gratitude and happiness with the results and the support received at the

time of greatest need due to the disaster left after the passage of Hurricane Julia in October 2022. This project provides the necessary resources to build on WCS's proven success and significantly expanded protection of hawksbill turtles and improve livelihoods for local communities.

4. Project support to the Conventions, Treaties or Agreements

This project contributes to the preservation of a Critically Endangered Species and the improved use of biodiversity by communities by providing alternative sources of income and improving food security. This supports reducing human impact on hawksbill and other species of marine turtles within the Pearl Cays Wildlife Refuge (PCWR), thus fulfilling key components of the Convention on Biological Diversity (CBD); contributing to the following SDGS: 2: Zero Hunger, 4: Quality education, 5: Gender equality, 12: Responsible Consumption and Production, and 14: Life below water. Additionally, Nicaragua is committed to achieving Aichi Target 11 by protecting 10% of its coastal and marine areas. Daily patrols on all nesting beaches at the PCWR directly help to fulfil this commitment by enforcing protection of these areas. Hawksbills are protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and therefore cannot be exported from Nicaragua without special CITES permits. The consumption of turtles and their parts is banned in Nicaragua by national law, although an exception is made for Indigenous communities of the Caribbean Coast which are entitled to hunt green turtle on the basis of quotas assigned per indigenous territory. Additional national legislation includes the General Law for the Environment No. 217 for the creation of marine protected areas, and Law No.489 on fishing and aquaculture, which also establish protections for marine turtles. These laws protect the country's biodiversity from pressures that are common to other central American countries. This project contributes directly to enforcing the national ban on marine turtles, as well as Laws No. 489 and 217, by directly protecting the nesting grounds of hawksbills within the PCWR, by promoting the no consumption of turtles and its parts through outreach campaigns, and the provision of alternative livelihoods to the coastal communities of Pearl Lagoon.

5. Project support to poverty reduction

The project has benefited 329 families (1,645 persons) by improved agriculture from 4 fishing communities (Awas, Raitipura, Pearl Lagoon and Haulover), it had reduced the pressure on the turtle hunting by shifting from fishing activities to agriculture. It had served as source of protein and income of the families. The project had provided direct benefits as employment and income to 9 people who were hired to do daily turtle monitoring on the Pearl Cay, which provided indirect benefits to 50 household.

An additional letter of agreement was sign between WCS and the Territorial government which considered to improve community governance that together will guarantee the wellbeing of the resources and the protection of the Pearl cays. The leaders of the Pearl Lagoon Territorial government have shown interest of this long run Turtle conservation program with its livelihood project and the intention to seek similar support for the reduction of poverty within the territory of the basin, this project is considered as one of the activities that has fully supported community members in need.

The daily monitoring and result of the 2022 season had proven the increase of number of nests and hatchling at least with 11 nest more than 2021 season and a reduction of poached nest during the season.

Our main achievements for this year were: effectively protecting 97% of endangered hawksbill turtle nests; benefiting and estimated of 1,645 people and specially for the first time in several years, WCS and the Territorial board of the 10 Communities of the Pearl lagoon basin signed a formal agreement, and as a result, WCS and local government are having more direct coordination, understanding and support, and both parts agreed to work closely to strengthen capacity building to have a better management and decision making towards the Pearl cays wildlife Refuge and its resources as a Marine Protected Area.

6. Gender equality and social inclusion

Please quantify the proportion of women on the Project Board ¹ .	132 women received seeds to plant (rice, beans and plantain corms) distributed between 4 different communities (Awas, Raitipura, Pearl lagoon and Haulover)
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ² .	<p>The target project was 260 people (60% women and 40% men), we have attended 329 people, 69 people more than projected.</p> <p>Based on our projection, we have reached 51% women, even so we still pending on the distribution of laying hens where we will guarantee the delivery of 100% to women, so we can guarantee the 60% of proposed project to benefit.</p> <p>For our patrol team 38% are women (3 out 8).</p> <p>Team leadership for patrolling represent 50% women.</p>

7. Monitoring and evaluation

Activities of the project were executed according to our log frame. Although there has been delays in the execution of these, key activities such as patrolling nesting beaches during nest season and carry out sustainable livelihoods activities were executed, giving as very good results such as the protection of 97.9 % of all nests found withing the surveyed cays and benefiting an estimated of 1,645 persons in different communities, respecting gender equality.

In the case of turtle nests, every patrol executed during nesting season have a logbook where they record nests found with coordinates and measures taken to protect them (relocate nets), if it's necessary. We also do daily nest check to make sure the nest has not been damaged either by poaching, destroyed by animals including other female turtles or washed away. All this data goes first into logbooks and then into a database, following a scientifically robust protocol established at the project inception more than a decade ago. Each nest was also excavated and recorded in hard data format then introduced into a data base for analysis. Excavations confirm the number of nests, it tells us how many eggs are found on each nest and how many hatchlings were release or dead during each nest's hatching.

In the case of sustainable livelihoods, we have the reports from the consultant with lists of participants, photographs and copies of the signed agreements that document the work with the communities, the distribution of seeds and subsequent planting and follow up until harvest.

We have not made any changes to our M&E plans so far. WCS oversees M&E activities and will share results of the project and indicators in the form of meetings and presentations, with community partners: community leaders and with Kabu Tour representatives.

¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

8. Lessons learnt.

The project “hit the nail on the head”, specially after the devastating hurricane Julia on October 10, 2022, which destroyed the plantations of farmers, residents of the area. Seeds delivered for planting and harvesting in the short and long terms were very much welcomed by communities and authorities and subsequent planting and harvest was excellent. According to what was evaluated, everything worked well, despite some setback for the acquisition of the seeds and hens, but we overcame supply difficulties on time. If we have the opportunity to do something similar, we will introduce not only rice, beans, plantain crops but also introduce other seeds such as corn and coconut. As recommendation to others who are doing similar projects, it is always recommended to make a prior consultation to guarantee that the project to be executed is base on characteristic of the area and the needs of the people in the area, thus avoiding rejection by beneficiaries, prior consultation, coordination and constant communication is the key to success in these projects, suppositions and assumptions without corroborate in the field don't work since what is good for one should not necessarily be good for others within the same rural community. Also people's beliefs and understanding on crops and how these relates with their own livelihood or welfare concepts can be different from one village to another. We perceive that our hawksbill conservation project can be directly combined with community livelihood activities hand to hand and constantly, by that way the project can provide and capture greater coverage and attention from authorities and inhabitants for the conservation of such limited resource, thus supporting the process of increasing of population at risk.

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

N/A

10. Risk Management

We have no additional risks arising that we can report so far.

11. Other comments on progress not covered elsewhere

- Nicaraguan government have implemented strict controls over NGO's activities on rural communities. Nowadays every NGO have to obtain permission from government to carry out field activities, despite previous agreements or signed permits in place. This have caused several activities to be delayed such as educational workshops. WCS is doing efforts to maintain a positive dialog with authorities, maintain a fluent line of communication and provide information as requested, to deal with this situation and try to short the time needed to obtain permits.

12. Sustainability and legacy

As an organization committed to the conservation of critically endangered hawksbill marine turtle, we know that saving this species from extinction is a work that will take many years. Turtles' life span has been estimated up to even 50 years and maturity comes after almost 10 years, those are biological facts that need to be taken into account when planning conservation actions on this species. Efforts will take decades to bear fruits. We therefore have a long term commitment for working at the Pearl Cays wildlife refuge, providing education to new generations of indigenous fishers and protecting nesting grounds of hawksbill marine turtles. We are convinced that through these efforts we will achieve generational changes in the way people perceive and value marine turtles. We are also focusing on improving local communities' livelihoods so they develop alternative ways of living that are more profitable and sustainable than killing hawksbill turtles. So, a combination of changes in attitudes, improvements on livelihoods and law enforcement will finally bring about the changes we are seeking which are basically when people value and consider marine turtles as something to be proud of and that it worth much more alive, than as a product to be sold.

13. Darwin Initiative identity

The Turtle Conservation program harmonized with the Livelihood project funded by Darwin, had a significant increase in protection and had created awareness through community reach out, workshop and training. A local radio station was contracted to do radio announcement and radio spots were contracted for broader reach out and to get more coverage of radio listener of communities' members of the Pearl Lagoon basin and other communities.

The 2021-22 annual report was delivered physically, (Please see Annex 4.5) and the 2022 basic information were presented to leaders of the Territorial Government board of the 10 communities.

The Hawksbill turtle painting for announcement at the Pearl Lagoon Municipal Stadium were repainted to promote and enhance the project. The painting was seen by at least 2000 of sport fans during the celebration of the 73 Nicaraguan Caribbean series 2023. (See Annex 4.7)

14. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes/No NO
Have any concerns been investigated in the past 12 months	Yes/No NO
Does your project have a Safeguarding focal point? YES.	Yes/No [If yes, please provide their name and email] Bianca Padilla [REDACTED]
Has the focal point attended any formal training in the last 12 months? YES	Yes/No YES : "Ethics of human subjects" online course sponsored and hosted by WCS.
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 10% 2 persons future: 25% 4 persons.
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. We have not had any challenges regarding safeguarding matters, working with local communities.	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. We will increase the number of staff taking WCS training on social Safeguarding.	

15. Project expenditure

Project spend (indicative) since last Annual Report	2022/23 Grant	2022/23 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
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	(£)			
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Monitoring & Evaluation (M&E)				
Others				
TOTAL	139,039	139,039		

Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)

Highlight any agreed changes to the budget and **fully** explain any variation in expenditure where this is +/- 10% of the budget. Have these changes been discussed with and approved by Darwin Initiative?

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

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilized by new activities building on evidence, best practices and project (£)		

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

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

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

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

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p>Impact</p> <p>Impact: Hawksbill populations in the Pearl Cays are protected by communities with strengthened capacities and sustainable livelihoods aligned with wildlife conservation priorities</p>		<p>(Hawksbill populations in PCWR have been protected and 2022 nesting season have been successfully monitor and protected: For this 2022 season, 782 new turtle clutches were recorded on the PCWLR, achieved 97.96 % of protection, only 2.04% of nest were poached by fishers. 1,645 persons improved their livelihoods due to project's investments.</p>	
<p>Outcome Hawksbill turtle population size increased and historical nesting grounds conserved through community conservation, education and investments in economic alternatives to turtle exploitation, in the Pearl Cays Wildlife Refuge (PCWR)</p>	<p>O.1 By 2024, hawksbill turtle nesting populations in the Pearl Cays show stability (numbers of nesting females are no less than 2021 records and number of poached eggs don't increase from 2021 records) and an increase of at least 10% of new nesting females and 10% in returning females in comparison to the 2022 baseline</p> <p>O.2 By 2024, more than 85% of targeted students and key stakeholders express their appreciation of marine turtles as a valuable and unique asset for their communities to be proud of and they demonstrate a strong understanding</p>	<p>97.96 % of 2022 laid eggs clutches were protected.</p> <p>122 students from high schools attended educational workshops, 27 university students received field training and 24 leaders received training in workshops on hawksbill marine turtle conservation.</p>	<p>Purchase of field materials and equipment, hiring and training of community patrollers, execution of field activities according to plans to protect incoming hawksbill nesting season.</p> <p>Follow up on the accomplishment of clauses within conservation agreements already signed.</p> <p>WCS have recently obtained permits to carry out remaining Workshops with primary and high schools as well as field training for university students. These activities will be executed until reaching indicators.</p>

Community conservation of critically endangered Hawksbill turtles in Nicaragua

	<p>of hawksbill turtle protection and conservation activities and their importance for the wellbeing of local communities.</p> <p>O.3 By 2024, 80% of targeted families are reporting an increase in food availability from engaging in sustainable livelihoods activities compared to the 2022 baseline</p>	<p>4 conservation agreements were signed among WCS and communal leaders who represented 329 families who accepted participate and received sustainable livelihood benefits.</p>	
<p>Output 1: Hawksbill turtle populations in PCWR increase and show stability (# of nesting female are equal or greater than numbers recorded in 2021 season).</p>	<p>1.1 By 2024, 9 nesting beaches are protected (verified by number of nests recorded compared to number of nests poached and destroyed by natural means) within the PCWR</p> <p>1.2 By Y3, at least 92% of hawksbill turtle nests compared to Y1 data are protected by community patrollers in the PCWR</p> <p>1.3 By Y3 of the project average emerging success per nest (based on estimated successfully hatched eggs per nest, per year) is maintained compared to Y1 data</p>	<p>Team has completed 1332 cays surveys, on average of 6 to 7 cays visited per day. All 9 nesting beached have been protected and systematically patrolled. (Evidence provided in annex 4.5)</p> <p>782 new turtle clutches were protected and recorded (11 more than 2021), achieved 97.96 % of protection, only 16 nests equivalent to 2.04% were poached</p> <p>61,759 eggs were counted from remained nests, 38,004 eggs successfully hatched with 51.54% of hatchling released to the ocean. (Percentage based on 50% empty eggshell of 494 remained nests excavated). For 2021-22 season.</p>	

Community conservation of critically endangered Hawksbill turtles in Nicaragua

Activity 1.1 Patrolling and quantifying nesting activity in the PCWR	Team patrolled systematically nesting beaches on 9 cayes of PCWR.	Patroller’s teams will execute patrol rounds on nesting beaches at PCWR.
1.2 Carry out Nest excavations, data collection and relocation of nests if necessary to other secured areas in the same beach.	From the total nests recorded, 264 nest were washed away and destroyed due to natural causes (hurricane Julia) equivalent to 33.76%. 61,759 eggs were counted from remained nests, 38,004 eggs successfully hatched with 51.54% of hatchling released to the ocean. (Percentage based on 50% empty eggshell of 494 remained nests excavated).	Nest excavations will be performed as part of planned activities for this 2022-2023 nesting season.
1.3 Carry out tagging of newfound turtles and record returning females.	The team had 10 encounters with nesting turtles. From these: they tagged 3 new turtles and 7 were recorded as returning turtles already tagged.	Tagging of turtles when encountered will be performed as part of monitoring protocol on nesting beaches.
1.4 Carry out analysis of field collected data	A report containing the results for the 2020-21 nesting season was prepared. Data is being gathered this year to complete a subsequent report for the next nesting & monitoring season	Data will be collected, analyzed and presented for the 2022-23 nesting season.
<p>Output 2: Students and key stakeholders in PCWR have increased knowledge of hawksbill turtle protection and conservation though</p>	<p>2.1 By 2024 1,500 (50% female) pupils in primary and secondary schools in 8 communities and 200 (50% female) university students are reached with conservation outreach and environmental education activities</p> <p>2.2 By 2024 90 (40 % female) Indigenous leaders, 30 (50% female) Government Officers and 60</p>	<p>122 pupils from high school received talks on hawksbill conservation (50% male and 50% female) and 27 university students made a field trip to the Pearl Cayes to learn about hawkbill monitoring techniques during 2021 nesting season. 24 leaders form territorial communal governments participated in workshops on hawksbill turtle conservation and monitoring.</p> <p>24 leaders (only 1 female) participated in this training. Among leadership on local governments and community territorial governments, currently there is only one female: the president of the Pearl Lagoon community.</p>

Community conservation of critically endangered Hawksbill turtles in Nicaragua

	enforcement officers (military) have increased technical capacity and awareness on marine turtle protection	We are waiting for central government to approve the participation of enforcement officers and other governmental officials in these training.	
2.1 Carry out field trips, talks and workshops on primary schools and field trips and training workshops with university students		Government was reluctant to allow original planned number of talks and workshops at schools. As a consequence, only a part of all planned Field trips, talks and workshops, as well as training workshops were carried out according to government permission that was delayed this year. Annex 4.6 contains evidence of these activities.	Project coordinator have obtained permits from the government to increase rate of talks and workshops for this coming year. We expect to increase the intensity of this activity until reach our indicator.
2.2 Carry out field trips and practical workshops with indigenous leaders, government officers and authorities, to increase technical capacity and awareness on marine turtle protection		24 Indigenous leaders and government officers participate in workshosp on hawksbill conservation and monitoring.	We will continue executing this activity until reach indicator
Output 3 Alternative livelihood initiatives are implemented in exchange for hawksbill protection commitments from local communities around the PCWR increasing availability of protein sources for each family successfully working on animal husbandry by 20% and increasing food availability of each family working in agriculture by 25%.	<p>3.1 By 2024, conservation agreements are signed in 4 target communities around the PCWR benefiting 260 families.</p> <p>3.2 By end of project, 260 families (60% female head of household) are benefitting from agricultural or domestic animal husbandry project inputs</p> <p>3.3 By the end of 2022, 8 patrollers (two women, accounting for 25% female) community members are trained on data collection methods and are patrolling and surveying cays daily at PCWR during nesting season</p>	<p>. Four conservation agreements were negotiated and signed among WCS and 4 local communities, benefiting 329 families , surpassing by 69 families the original goal.</p> <p>Currently, 329 families are being benefited and this number will increase as project prepare to execute domestic animal husbandry activities.</p> <p>9 patrollers have been hired. Only one women accepted participate. They have been trained and they are executing project’s activities regarding hawksbill marine turtle monitoring and conservation.</p>	

Community conservation of critically endangered Hawksbill turtles in Nicaragua

	<p>(March to November), benefitting an estimated 40 people (5 members per community member family)</p> <p>3.4 By 2023 , Kabu Tours (a partner under a co-finance portion of this initiative) is operational and employing 20 community members (4 of which are women, accounting to 20 % female) , benefitting an estimated 100 people (5 members per community member family)</p> <p>3.5 By 2024, Kabu Tours is generating a net annual income of 15,000</p>	<p>Kabu tours activities have been delayed due to delays in government permits obtention and also delays on project `s materials and equipment purchases.</p>	
<p>3.1 Hiring of an agricultural extensionist to carry out sustainable livelihood activities with 4 communities.</p>		<p>An agricultural extensionist have been hired and have worked on 4 communities.</p>	<p>Agricultural extensionist will continue working for the project focusing on analysing data, providing supervision to communities and executing remaining activities.</p>
<p>3.2 Field trip to socialize and discuss sustainable livelihood activities with local communities and reach an agreement on the parameters to benefit families: female head of households, fishers working in the PCWR, others to be determined in conjunction with local leaders.</p>		<p>Field trips were executed.</p>	<p>Field trips will be planned and executed to provide supervision and to implement additional sustainable livelihoods activities such as patio animal husbandry.</p>
<p>3.3 Field trip to negotiate and sign conservation agreements within 4 target communities</p>		<p>Field trip was executed</p>	<p>N/A</p>
<p>3.4 Acquisition of certified seeds of staple food and submission of them according to agreed quantities per family.</p>		<p>This activity was completed.</p>	<p>N/A</p>

Community conservation of critically endangered Hawksbill turtles in Nicaragua

3.5 Technical advice and follow up visits to producers to supervise crop progress and ensure success	Consultant executed 4 field trips to provide supervision and follow up to families involved in agricultural activities on each community.	Consultant will continue carrying out field trips to supervise agricultural activities and document results.
3.6 Acquisition of hens and distribution, according to workplan, and conduct practical training workshops on hens husbandry techniques, follow up.	This activity have been postponed to second year of the project.	Consultant will execute this activity during second year of the project.
3.7 Design and carrying out a socioeconomic survey among local communities (baseline) and carry out a second survey at the end of the project	A survey have been designed and is underway. It will be completed in 4 weeks.	Baseline report will be issued at the beginning of project´s second year. Survey iteration will be carried after all project´s activities are completed, at the end of the second year of project.
3.8 Data analysis of socioeconomic survey	This activity will be executed in mid June to mid July	Data analysis will be executed from mid-June to mid July 2023. Second data analysis for final survey will be performed at the end of the project.
3.9 Improve livelihoods for 8 people hired as community patrollers, benefiting indirectly 40 people based on an average household size of 5 people.	9 patrollers have been hired and are working in the project.	Patrollers will continue working for WCS during second year of the project.
3.10 Reactivation of Kabu Tours community Enterprise, as a co-finance activity, leading to employment opportunities and opportunities to raise awareness on marine turtle conservation through tourism	Reactivation of Kabu Tours have been delayed due to delays in the obtention of government permits and purchase of equipment that needs to be imported due lack of availability in the country. We expect Kabu Tours activities to be completed this 2023 season.	Activities will be executed during the second year of the project.

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

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Impact: Hawksbill populations in the Pearl Cays are protected by communities with strengthened capacities and sustainable livelihoods aligned with wildlife conservation priorities			
<p>Outcome:</p> <p>Hawksbill turtle population size increased and historical nesting grounds conserved through community conservation, education and investments in economic alternatives to turtle exploitation, in the Pearl Cays Wildlife Refuge (PCWR)</p>	<p>O.1 By 2024, hawksbill turtle nesting populations in the Pearl Cays show stability (numbers of nesting females are no less than 2021 records and number of poached eggs don’t increase from 2021 records) and an increase of at least 10% of new nesting females and 10% in returning females in comparison to the 2022 baseline</p>	<p>O.1 Nest records from daily monitoring, annual report with pictures, computer database to record and calculate: number of new nesting and returning females, total number of nests and clutches, hatching success (% of neonates to exit their eggshells) and emerging success (% of neonates to exit the nest) for each clutch.</p>	<p>O.1.1 Fishing community members continue supporting the project.</p> <p>O.1.2 Local authorities in Nicaragua continue supporting the project.</p> <p>O.1.3 Patrolling system is correctly implemented, and community patrollers are able to detect, retain, and tag/release nesting females in a systematic and accurate way.</p>
	<p>O.2 By 2024, more than 85% of targeted students and key stakeholders express their appreciation of marine turtles as a valuable and unique asset for their communities to be proud of and they demonstrate a strong understanding of hawksbill turtle protection and conservation activities and their importance for the wellbeing of local communities.</p>	<p>O.2 Post workshop survey. Baseline: 40 % of students and key stakeholders express their appreciation of marine turtle as valuable and unique assets and demonstrate a fairly good understanding of hawksbill protection activities.</p>	<p>O.2.1 Students and key stakeholders attend workshops, talks and participates in field trips.</p> <p>O.2.2 Covid situation enables project to carry out in-person meetings and gatherings</p>

Community conservation of critically endangered Hawksbill turtles in Nicaragua

	O.3 By 2024, 80% of targeted families are reporting an increase in food availability from engaging in sustainable livelihoods activities compared to the 2022 baseline	O.3 Socioeconomic Survey	<p>O.3.1 benefited families provide accurate information to interviewers during field data collection.</p> <p>O.3.2 Survey data is correctly processed and reflects accurately People’s answers</p>
Output 1: Hawksbill turtle populations in PCWR increase and show stability (# of nesting female are equal or greater than numbers recorded in 2021 season).	1.1 By 2024, 9 nesting beaches are protected (verified by number of nests recorded compared to number of nests poached and destroyed by natural means) within the PCWR	1.1 Patrol logbook, annual report, computer database	1.1 Climatic variability does not seriously affect nesting grounds and patrols are able to deploy within the cays during the entire nesting season.
	1.2 By Y3, at least 92% of hawksbill turtle nests compared to Y1 data are protected by community patrollers in the PCWR	1.2 Nests check book, annual report, computer database	1.2 National Authorities continue supporting the patrols and act when poachers are identified by community patrollers.
	1.3 By Y3 of the project average emerging success per nest (based on estimated successfully hatched eggs per nest, per year) is maintained compared to Y1 data	1.3 Nest check logbook, computer database	1.3 Data is correctly and systematically recorded by community patrollers.
Output 2: Students and key stakeholders in PCWR have increased knowledge of hawksbill turtle protection and conservation though	2.1 By 2024 1,500 (50% female) pupils in primary and secondary schools in 8 communities and 200 (50% female) university students are reached with conservation outreach and environmental education activities	2.1 Field trip and workshop terms of reference, attendance sheets (disaggregated by sex), reports on educational workshops and field trips	2.1 Students are open to learning and changing their behavior and attitudes towards hawksbill marine turtles.

Community conservation of critically endangered Hawksbill turtles in Nicaragua

<p>participation in field trips and workshops</p>	<p>2.2 By 2024 90 (40 % female) Indigenous leaders, 30 (50% female) Government Officers and 60 enforcement officers (military) have increased technical capacity and awareness on marine turtle protection</p>	<p>2.2 Workshop terms of reference, attendance sheets (disaggregated by sex), reports on workshops</p>	<p>2.2 COVID conditions in the country allows WCS to carry out gathering and meetings with key stakeholders</p>
<p>Output 3 Alternative livelihood initiatives are implemented in exchange for hawksbill protection commitments from local communities around the PCWR increasing availability of protein sources for each family successfully working on animal husbandry by 20% and increasing food availability of each family working in agriculture by 25%.</p>	<p>3.1 By 2024, conservation agreements are signed in 4 target communities around the PCWR benefiting 260 families.</p>	<p>3.1 Signed conservation agreements. 3.2 signed lists of benefited families per community.</p>	<p>3.1 Families accept to release hawksbill turtles bycatch and to stop hunting and selling of hawksbill carapaces in exchange for agricultural or small patio animal husbandry inputs. Families attend extensionists training and apply his/her indications.</p>
	<p>3.2 By end of project, 260 families (60% female head of household) are benefitting from agricultural or domestic animal husbandry project inputs</p>	<p>3.2 Signed improved seeds, rice, beans, plantain suckers or animals' distribution lists (disaggregated by head of household), pictures and annual report</p>	<p>3.2 Locally improved seeds, adapted for climatic conditions of Pearl Lagoon Basin are available to purchase when needed.</p>
	<p>3.3 By the end of 2022, 8 patrollers (two women, accounting for 25% female) community members are trained on data collection methods and are patrolling and surveying cays daily at PCWR during nesting season (March to November), benefitting an estimated 40 people (5 members per community member family)</p>	<p>3.3 Signed agreements, monthly signed payroll stubs</p>	<p>3.3 Community members are willing to participate in the project and be hired.</p>
	<p>3.4 By 2023 , Kabu Tours (a partner under a co-finance portion of this initiative) is operational and employing 20 community members (4 of which are women, accounting to 20 % female) , benefitting an estimated 100 people (5 members per</p>	<p>3.4.1 Signed agreements, Kabu tours reports with pictures evidencing activities execution.</p>	<p>3.4 The sociopolitical and pandemic situation allows visitation to Pearl Cays to continue throughout the year.</p>

Community conservation of critically endangered Hawksbill turtles in Nicaragua

	community member family)		
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Community conservation of critically endangered Hawksbill turtles in Nicaragua

	<p>3.5 By 2024, Kabu Tours is generating a net annual income of 15,000</p>	<p>3.5 Kabu Tours annual bank statements. Baseline: Kabu tours income generation is currently zero.</p>	<p>3.5 The sociopolitical and pandemic situation allows visitation to Pearl Cays to continue throughout the year. 3.5.1 foreign and national tourists flux to the area increase as a consequence of global tourism post-pandemic recover</p>
<p>Activities</p> <p>Output 1:</p> <p>2.3 Patrolling and quantifying nesting activity in the PCWR</p> <p>2.4 Carry out Nest excavations, data collection and relocation of nests if necessary to other secured areas in the same beach.</p> <p>2.5 Carry out tagging of newfound turtles and record returning females.</p> <p>2.6 Carry out analysis of field collected data</p> <p>Output 2:</p> <p>2.1 Carry out field trips, talks and workshops on primary schools and field trips and training workshops with university students</p> <p>2.2 Carry out field trips and practical workshops with indigenous leaders, government officers and authorities, to increase technical capacity and awareness on marine turtle protection</p> <p>Output 3:</p> <p>3.1 Hiring of an agricultural extensionist to carry out sustainable livelihood activities with 4 communities.</p>			

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-B10	# of people benefitting from agricultural projects or patio animal husbandry improvements (hens) at the end of the project	Number of individuals / households reporting an adoption of livelihood improvement practices as a result of project activities.	persons	987 women 658 men	1645 people			1645	
DI-B07	# of individuals directly employed annually by the project	Number of people participating in community-based management groups and/or Payment for Ecosystem Service schemes.	Persons	6 men, 3 women	9.				
DIA01	# of pupils and university students participating in workshop and training activities conducted per year, including field trips	Number of people from key national and local stakeholders completing structured and relevant training2.	persons	46 men 76 women	122				
DI-D16	# of people directly and indirectly benefitting at the end of the project through Kabu Tours community enterprise reactivation and through the provision of additional goods and services as a result of increased tourism in the area.	Number of households reporting improved livelihoods.	persons		They have not yet renewed their tourism activities due to delays in the purchase of working equipment (purchase of motor and construction of boat) include also legalization process.				

Community conservation of critically endangered Hawksbill turtles in Nicaragua

DI-A12	Net annual income generated by Kabu Tours at the end of the 2d year of the project.	Annual turnover of established sustainable livelihood enterprises in the project's final year.	Thousands of USD	N/A	15000				
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In addition to reporting any information on publications under relevant standard indicators, in Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Mark with an asterisk (*) all publications and other material that you have included with this report.

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)

Community conservation of critically endangered Hawksbill turtles in Nicaragua

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?	
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
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.	
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.	
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 16)?	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	