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	28-019
Project title	Protecting ecosystem functions in key watersheds for biodiversity and people
Country/ies	Bolivia
Lead Partner	Asociación Armonía
Project partner(s)	1) Tiquipaya Municipal Government 2) Secretaria de la Madre Tierra – Gobierno Departamental de Cochabamba (Regional Government of Cochabamba) 3) Tunari National Park 4) Faunagua
Darwin Initiative grant value	£ 270,000
Start/end dates of project	01/Oct/2021 - 20/Sep/2023
Reporting period (e.g. Apr 2022 – Mar 2023) and number (e.g. Annual Report 1, 2, 3)	Reporting period: 01/Apr/2022 to 30/Mar/2023 Annual report #: 2
Project Leader name	Rodrigo W. Soria-Auza
Project website/blog/social media	https://armoniabolivia.org/
Report author(s) and date	Rodrigo Soria, Daniela Aguirre y Paul van Damme

1. Project summary

Tunari National Park lacks strategies that integrate local community needs with nature protection. This has triggered native forest destruction, loss of ecosystem functions, and expansion of exotic tree plantations. We will implement a habitat restoration program in coordination with key stakeholders and engage local communities within Park boundaries to strengthen local development based on sustainable forestry use and protection of biodiversity/ecosystem functions. A massive communication strategy will be implemented to create suitable conditions for project replication in neighbouring municipalities.

A map of the project area can be accessed through this link. Most actions implemented through this project are focussed in five communities that belong to Tiquipaya municipality located within the Tunari National Park (that together form the Subcentral 13 de Agosto).

2. Project stakeholders/ partners

Project partners are: 1) The Tiquipaya municipal government, represented by the Dirección de Medio Ambiente y la Madre Tierra (the Municipal Direction of Environmental Issues). 2) The Regional Government of Cochabamba through its Dirección de la Madre Tierra (office of the regional Government of Cochabamba in charge of Environmental Issues). 3) The Tunari National Park (TNP) that is part of the Servicio Nacional de Areas Protegidas (SERNAP). SERNAP administrates the 22 National protected areas of Bolivia. 4) Faunagua, a Bolivian NGO that also works in the same area. The above-mentioned institutions were involved as partners since the planning stage of this project. During the implementation of the project a new actor entered into the scene. This new actor is Kurmi, a Bolivian NGO interested in the management and protection basins in the Tiquipaya municipality. However, Kurmi's intervention in the project area was very punctual and short in time. Though we collaborated in several activities, we did not sign an agreement of cooperation.

1. **Tiquipaya Municipal Government (TMG).** Armonía and the TMG signed an agreement of cooperation that allow us to cooperate in multiple activities. Thanks to this agreement we improved the installations of its nursery that we are using to produce the native trees. Its personnel participated in the last reforestation campaigns and the ongoing monitoring (survival of planted trees).
2. **Regional Government of Cochabamba (RGC)**. Armonía and the RGC also signed an agreement of cooperation. The production capacity of the nursery we built was 100,000 saplings/year during the first year of project implementation. Its production capacity increased to 200,000 saplings/year during the 2022-2023 period. The RGC also produces a number of saplings for the reforestation campaigns. Its contributions during the first year was 40,000 saplings. Last period (2022-2023) was 10,000 and its contribution for the 2023-2024 period will be 30,000 saplings. The personnel of the RGC participates in the reforestation campaigns and also the monitoring program we conduct every year.
3. **Tunari National Park (TNP)**. Armonía and the TNP also signed an agreement of cooperation. The personnel of is protected area also participated in the reforestation campaigns, and are also currently participating in the monitoring of planted trees.
4. **FAUNAGUA (FAU)**. FAU started to build a baseline database of information to estimate the ecosystem functions provided by the Tunari National Park. This baseline will be key to measure the impact of the project in the mid to long-term. For the implementation of the present project Armonía and FAU also signed an agreement of cooperation. This allow us to deliver some funds to FAU as subgrantee.

During this 2022-23 period we managed to establish partnerships with more departments that are part of the RGC and the TMG. These are: 1) the Unidad de gestion de riesgos (UGR). This unit acts when disasters (e.g. wildfires, floods, etc.) happen within the territory of Cochabamba department. 2) the unit of tourism of the TMG, which is very interested in developing the potential of Tiquipaya municipality for tourism. Finally, to increase the commitment of local communities and help them diversify their economies, we established an agreement of cooperation with a local NGO named Agrecol. Finally, be the end of January 2023, another local NGO approached us to look for ways of cooperation. Their main interest is to collaborate with the activities related with prevention of wildfires.

3. Project progress

Over 80% of activities we planned for this period were achieved. Achievements surpassed our expectations for outputs 1 and 3. Some activities designed achieve outputs 2, 4 and 5 experienced some delays. These delays were due to time availability of stakeholders we coordinate with and also due to administrative procedures of local and regional government. However, the project progress is not compromised.

3.1 Progress in carrying out project Activities

Output 1. We surpassed the proposed number of saplings planted for this season (130,000 saplings were proposed to be planted every year). By March 2023, we planted 200,000 saplings of native trees in 75 ha (154% achievement). In total we have planted almost 450,000 trees since Dec 2020 (see map here). We followed the advice from other experienced habitat restoration experts working in the Andes (Acción Andina), and increased the density of trees to 2600 trees/ha. Note in the map that we have already intensified large-scale reforestations in communities from the neighbouring municipalities of Sacaba, Quillacollo and Vinto. Now 9 communities from these municipalities are committed with the forest restoration component of this project.

Two water reservoirs were constructed during this period and in total we have four (see map here). The water reservoir in Thola Pujru community, Linku Pata Community and Curubamba community are 100,000 litres big (see here), while the one constructed in Laphia is over 1,000,000 litres big (see here). We also distributed in total 13,5 km of pipes to improve the network of irrigation systems for the local communities committed with the reforestations.

Fifty one members from the communities in Tiquipaya municipality (Cruzani, Laphia, Linku Pata, Thola Pujru, Totora and Montecillo) were trained as wildfire firefighters (see here), 35 are fully committed and therefore fully equipped (see here). Upon request from the Tunari national park's personnel and the UGR unit from the RGC, we donated 6 complete sets to these institutions that are badly equipped. During the following period more training courses will be organized and committed attendees will be equipped as well. We developed protocols to prevent and control forest fires and now we are in the process of formally integrating these trained firefighters as part of the UGR of the RGC.

We can confidently assert that we already exceed the proposed measurable indicators for the output 1. Moreover, we have already scaled up the impact of the project as approximately 50,000 saplings of the 200,000 produced saplings have been planted in Quillacollo, Vinto and Sacaba municipalities. The next reforestation campaign our goal is to plant 300,000 saplings in four municipalities (Quillacollo, Sacaba, Tiquipaya y Vinto).

Output 2. The governance body of local communities we work with (Ditrito 3 or Sindicato 13 de Agosto) of the Tiquipaya municipality (within the Tunari National Park) has given us its support to proceed with the forestry management plan. This is, without doubt, key to implement actions. However, due to reasons already explained in the change request submitted in December 2022, we proceeded to develop management plans for pilot plots (see here to see its location. Click here to access the management plans). The forestry management plan for the pilot plots has been already sent to the "Autoridad de Bosque y Tierra" (ABT) (see here a picture of one of the pilot plots), which is the state office in charge of approving (or rejecting) forestry management plans in Bolivia. This office has already approved the plan we presented (here). As the project area is located within a national protected area, we also sent the management plan to the SERNAP ("Servicio Nacional de Areas Protegidas" which is the state office that administrates the network of national protected areas; to access the correspondence with SERNAP click here). We are working to fulfil with some bureaucratic details to obtain SERNAP's approval.

Output 3. Thanks to the meetings we had with local communities along the first year of project implementation, the local communities' governance body (Organismo de gestion de cuencas = OGC) has become more active (See pictures here). Community leadership in local

communities is traditionally taken by men. OGC's current directorate is formed by 10 persons, 2 of them being women. We are still encouraging to increase the participation of women in leadership positions. In fact, we have already identified women who potentially might become leaders in future (here three women with high leadership profile. From left to right: Judith Gonzales, Ubaldina Luna and Feliciana Vargas). These group of women received some training (see below in this section).

We motivated to the Tiquipaya municipal government to act as a mediator to sit together local communities and Tunari national park's administration. Given that one of Tiquipaya municipal government's goals is to protect and manage sustainably of the watersheds in this area, this key actor took the lead, and organized at least three workshops/meetings with all actors (with our support)(see here the minute of the first meeting with organized by the municipal government with all organizations with presence in Tiquipaya). The consolidation process of a platform that integrates the OGC (communities' governance body) with the Tunari national park and the Tiquipaya municipal government has advanced and is already working informally (See a selection of pictures here). However, at this stage, we do not have a document that certifies the consolidation of this platform yet.

As mentioned in earlier reports, Kurmi, another Bolivian NGO, helped to communities to develop a community plan. We participated in this process as well as representatives of the Tiquipaya municipal government. This community plan is important for us to develop the 5-years strategy. The process of developing the plan lasted way longer than expected, and this delayed our work to prepare the strategy (which is being prepared together with members of communities' governance body and other active members from involved local communities).

To create the capacity of communities in critical thinking regarding to the protection of watersheds and sustainable development projects, Armonia conducted a 85-hours training course (classes were on weekends from Aug to Nov) to train local people in: 1) leadership strengthening, 2) conceptualization of sustainable development, community projects and gender equity, 3) elaboration of budgets and 4) development of concepts and proposals. Twenty-eight persons participated, but only 21 concluded the training course (see a selection of pictures here). Eleven of these are women who might become leaders. Project coordinator (Daniela Aguirre) is working closely with these group of women to encourage their preparation as future leaders. Three concept projects resulted from this course, and these projects will be the foundation of the 5-year strategy we are helping to develop (to be ready by July 2023). One of these three project concepts have been developed by a group of women. We expect to conclude the 5-year strategy by June 2023.

Output 4. After the culmination of each year's reforestation campaigns, we establish ten 500m^2 plots to monitor the development of saplings planted (plots for last reforestation campaign were established in April and May 2023, so these plots are not plotted yet). The location of the plots is randomly selected among the reforested areas. Monitoring data is collected yearly between August and September, which is the peak of the dry season (click here and here to access picture and map). The two variables recorded are: survival rate (the proportion of saplings alive in relation to the total number of plants planted within the boundaries of the plot) and the plant height. At least 10 years of data will be collected for every plot. As we are involving park rangers, municipal officers and even community members in the monitoring, we decided to restrain the monitoring to these two variables, which are easy to obtain for every plot (click here to access the protocol). We also collected high-resolution drone images of the forested/reforested areas. From the year 2030 onwards, monitoring of the forested/reforested areas will be conducted remotely with the use of a drone. Thus, we will be able to compare landscape changes (e.g. changes in vegetation coverture).

To build a baseline data of the key bird species populations and also keep track of the bird diversity in the area, we established point counts in the study area (see map here). These are located at several altitudes. Some are within the reforested plots, others in the remaining native forests, degraded areas, agricultural areas and the forestry plantations of exotic trees (to compare current differences between sites). During this period, data is being collected every month. Park guards (see here) and community members (interested in becoming bird guides for tourists) are being trained every month with our ornithologist. Before the conclusion of the project we will choose a subset of points. This subset will be monitored by trained persons (we

will assist them during the first years) only twice every year (one in the dry season and one in the rainy season). This will allow us to keep track of changes over time, and compare it with the baseline data that we are obtaining this year.

The socioeconomic study of communities is almost complete. Data collection phase has been conducted between August and November of 2022 with the participation of 10 communities' members (Click here to see a sample of interview). About 70% of families in the target communities have been surveyed. Data analysis will conclude in April 2023. This study will provide the baseline data information to estimate the socioeconomic impacts of the project in the communities we are currently working with. The protocol to measure the socioeconomic impacts will be ready by May 2023.

To determine the current environmental flow and the current soil water retention, our project partner Faunagua measured the water flow in the watersheds of the study area every month (Fig 12). Now we count with a detailed baseline information of water flows in the watersheds in the study area (click here). This information will be key for later evaluations of project environmental impacts. We will now design a protocol that will be easy to understand. Thus, other stakeholders can collect data yearly.

Output 5. We have achieved significant progress to accomplish this output. Most neighbouring municipalities in the Cochabamba valley that have territory in the Tunari national park have been contacted (here some presentation we gave). These are (besides Tiquipaya municipality), Cochabamba (also known as Cercado), Quillacollo, Sacaba, Sipe Sipe and Vinto. All are well aware of the project goal and activities, and now Quillacollo, Sacaba and Vinto municipalities are fully integrated in the restoration program. This year we planted 200,000 saplings in these municipalities, and during the next reforestation campaign we are planning to plant in total 300,000 saplings in total. We are also collaborating to the Tiquipaya municipal government in the elaboration of its plan to manage and protect basins within its territory. We assisted to several meetings organized by the municipal government (see here), and now ; our forest restoration program is a component of the municipal plan to manage and protect the watersheds in its territory.

To communicate, inform and educate the public opinion regarding the importance of the Tunari national park, the project activities and the project impact, we looked for opportunities to have TV interviews. Unfortunately, we managed to obtain recordings for only some of the TV TV interview (see here). We also participated in numerous public activities that concentrate public such as "día del peatón" and other environmental fairs (see here; this is a day in which no cart is allowed on the streets, and the whole population of Cochabamba city turns out to the streets to walk and ride bicycles). We also produced numerous printed materials for free distribution (see here).

Local newspapers published at least two notes about the project along the last 12 months in their printed editions. We also produced three video clips about the importance of the Tunari national park, the activities we are implementing and the impact we have as well as the long-term impact we aim to have. Video clips are stored in Armonia's youtube channel (click: here, here and here to see the video clips) and have been broadcasted in our social media platforms (Facebook, twitter and Instagram). We play the videos in all meetings and workshops we attend to. More importantly, the videos have been broadcasted by several other means such as screens in governmental buildings, private business and even on TV). Finally, we produced two radio spots that have been broadcasted in several local radios for at least 3 months (8 times per day). Radio spots can be accessed here.

Mobilizing students of the institute of technical training in forestry, agronomy and environmental sciences in Cochabamba is being challenging, Only a small number of students became volunteers who attended to at least 8 environmental fairs.

Finally, in April 2022 and September 2022 we have conducted a survey to measure the level of knowledge people have about the importance of the Tunari National Park. This will provide us with the baseline information to measure the impact of our project's communications activities. A last survey will be conducted in September to measure the impact of our communication activities.

3.2 Progress towards project Outputs

Output 1. We proposed to plant 260,000 saplings through the time of project implementation (130,000 per year) and we have already planted 340,070 during the period of project implementation (in total 450,000 saplings planted since 2020). Therefore, we exceeded the proposed goal with 80,070 planted saplings. We also count with a map that highlights potential areas where we will continue reforesting in the coming years (click here) where the scaling up of our activities can be noted.

We constructed the proposed number of water reservoirs (2) and distributed 13,5 km of pipes to strengthen the irrigation systems (Click here to access a map that shows the location of the two water reservoirs build during this period. Click here to see some pictures). We trained 51 members from local communities (we proposed to train 50), but fully equipped only 35 persons (only the committed ones; 11 women are among these group; see some pictures here). Trained community members were already successful fighting a forest fire that was provoked in a neighbouring community where we are not working yet (click here to see some pictures).

Trainings will continue in 2023. Thus, the number of community firefighters will continue increasing. Now (2023) we are working with the regional government of Cochabamba to fully integrate this group with the network of firefighters. In summary, we basically already completed (and even exceeded) the proposed indicators for this output.

Output 2. The plan to sustainably manage forestry plantations of exotic trees counts with the support of the communities. The approval is signed by the leader of the subcentral 13 de Agosto, which is formed by the five communities we work with in the Tiquipaya municipality (see here). The plan has been approved also by the national office in charge of approving forestry management plans (here) and we are still waiting for the approval of the SERNAP (national system of protected areas). While this administrative procedure follows its course, we have already acquired the equipment needed to start with the management of the forestry plantations.

Output 3. Local communities' governance body (Organismo de gestion de cuencas) is functional and a platform now exist to channel of communication between this entity with the municipal government and the Tunari national park administration. Though communication has improved between communities and the protected area administration, further work is still needed to build a solid relationship between both actors. Though the number of women as members from the "organismo de gestion de cuencas" is proportionally lower compared with men, we have already identified and are training women that might become leaders (here a picture of three potential female leaders. From left to right: Judith Gonzales, Ubaldina Luna and Feliciana Vargas).

Three concept projects have been developed. These concepts are the result of a training course we conducted to create local capacities among members from local communities. Visits to the ministries and international cooperation agencies in Bolivia will be organized later in 2023.

Output 4. We update annually the map of reforested areas after each reforestation season ends (reforestation seasons take place during the rainy season, each year from December to March; see here). Thus, we keep track of locations and hectares reforested. This year (2023) we will add an interactive map to our website where we periodically update the progress of the restoration component of our project, which is part of the Acción Andina initiative (click here). All stakeholders are familiarized with the monitoring protocol we developed to keep track of reforested areas (protocol shared with all stakeholders can be accessed here).

The baseline data of watersheds and water retention has been concluded and shared with stakeholders (see here). Personnel from Tiquipaya municipal government and some members from local communities have been trained to measure water flows in watersheds (thus local capacity is being created to guarantee continuity after project conclusion; click here). And document of the protocol written in an easy-to-understand language will be delivered to stakeholders in 2023.

The baseline database of key bird species population is being constructed, and training of park guards and local people started as well. The protocol will be written and delivered to stakeholders and Darwin later in 2023.

Output 5. Thanks to meetings and public presentations we conducted in all neighbouring municipalities, communities in three neighbouring municipalities have become part of the reforestation programme during the last year, and at this moment we have planned already reforestation campaigns in neighbouring (Click here). Thus, we can confidently state that we have already fulfilled the desired/expected scaling up of projects impacts. Communication activities like video clips produced (click here, here and here), TV interviews (click here), notes in newspapers, radio spots (click here) and educative/informative material we produced (posters, leaflets, etc.; click here) were fundamental. In 2023 we will allocate resources to measure the impact we har having on public opinion.

3.3 Progress towards the project Outcome

Indicator 1. Tiquipaya is the first municipality that develops a reforestation program to protect the ecosystem functions and threatened biodiversity within the Key biodiversity Area (KBA) southern slopes of TNP.

As the Tiquipaya municipal government has already included the restoration of native forests within its municipal watershed management plan (click here), we can confidently state that this indicator has been already met.

Indicator 2. Quechua family economies in Tiquipaya communities within TNP (200 families, totalling approximately 900 persons) have diversified and increased by 5% due to the implementation of a sustainable forestry management plan.

The pilot plots developed for Laphia and some members from Thola Pujru communities have been concluded and submitted to the authorities responsible of approving forestry management plans. Plans were approved. However, the implementation of the forestry management plans is going to take place later than we expected. The duration of the bureaucratic procedures in the SERNAP (the national office that administrates the protected areas) is larger than we expected. We expect to finally be able to implement both in 2023. Only then we will be able to measure whether this indicator is met.

Indicator 3. Governance and social organizations (including gender equity) and their capacities for sustainable development are strengthened.

Now that the “Organizanismo de Gestion de Cuencas” (OGC) is established as local communities’ governance body and is active, we can confidently state that we already made significant progress to achieve this indicator. Gender equity is still an issue we need to continue working. We have identified and trained some key female leaders such as Silvia Vargas (Laphia community), Judith Vasquez (Thola Pujru community) and Norah Fernandez (Totora community), among others (see here), that might become leaders from their communities. However, at the present only two women are part of the directorate of the OCC. Eleven women (out of 21 persons) completed the training course we offered and have the good chances of becoming leaders. These group of trained persons developed three project concepts and have a clear vision of the path they want for their communities to follow.

Indicator 4. A communications strategy put in place to create suitable conditions in neighbouring municipalities to replicate this project’s achievements.

This year four from six municipalities (including Tiquipaya municipality, which is this project’s project area) are fully integrated in the restoration program. Therefore, we can successfully state that we have met this indicator (see here).

Indicator 5. A monitoring programme to evaluate biodiversity and ecosystem functions is developed and implemented in coordination with key stakeholders.

The monitoring program to keep track of saplings survival has been already developed and shared with stakeholders. The baseline for biodiversity and ecosystem functions are already obtained. Stakeholders have been familiarized and trained on methods for data collection. Now we are working writing the protocols (Click here to access base documents and databases).

3.4 Monitoring of assumptions

Outcome assumption: No political crisis that potentially might interrupt the successful implementation of this project takes place in the next three years.

Comments: This assumption holds true so far.

Output 1. Assumption 1: All stakeholders endorse this initiative. This assumption is reasonable as we have already initiated some activities with all stakeholders

Comments: As reported here, all stakeholders agree with project activities and its proposed output and outcomes. This has been demonstrated in previous sections of this report.

Output 2. Assumption 1: The office of national protected areas and the Ministry of environment and water (MMAyA) endorse this initiative. This assumption is reasonably as the MMAyA through its vice-ministry of Hydric Resources and Watersheds have supported already projects to strengthen local communities' sustainable development within protected areas in the last years.

Comments: : The national office of protected areas (SERNAP; which is the competent office in the Ministry of environment and water), through its local representative, the administration of the Tunari national park, is a project partner (we have signed an agreement). We had a meeting to present our project to its office in charge of these issues, the Dirección General de Biodiversidad y Areas Protegidas.

Output 3. Assumption 1. Local communities, the TNP and the Tiquipaya municipal government reach agreements.

Comments: This assumption holds true. In fact, we have already show that we signed agreements of cooperation with the Tunari national park administration and tie Tiquipaya municipal government and local communities.

Output 3. Assumption 2. Local people are keen to receive training in designing sustainable development and conservation projects.

Comments: This assumption holds true. In fact, training has been already conducted and now we have 21 communities members that completed training (11 women).

Output 4. Assumption 1. Key stakeholders are committed to the implementation of activities beyond the duration of this project.

Comments: Ensuring the participation of stakeholders in long-term monitoring is challenging due to limited time-availability, limited availability of resources and personnel without proper training. Through this project we provide equipment and training to key personnel from the Tiquipaya municipal government and the Tunari national park. The agreement of cooperation we signed with both includes a commitment to guarantee that personnel their personnel will continue conducting monitoring activities.

Output 5. Assumption 1. Key actors in neighbouring municipalities give us space to present the project.

Comments: This assumption holds true. We have already hold numerous meetings in all neighbouring municipalities in the valley of Cochabamba that have territory in the Tunari national park.

Output 5. Assumption 2. Key journalists give us space in newspapers, TV channels and other spaces.

Comments: with some limitations, this assumption holds true (see here a sample of interviews we had in the 2022-23 period). We had several interviews in local TV channels, several notes

were published in local newspapers, but the tv channels with the highest ratings were the most difficult to access, and two of then still haven't give us space to talk about the project yet.

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

Through this project we are restoring the highly degraded and fragmented forests of the southern slopes of the TNP, a Bolivian Key Biodiversity Area (KBA) in a critical state of conservation. It is especially important to restore the high Andean Kewiña forests, which are formed by the threatened tree *Polylepis subtusalbida* (*Polylepis* is a genus of trees endemic to the high Andes). Most of the remaining Kewiña fragments formed by this species are located in this KBA and provides key habitat for numerous range-restricted bird species. Among these species is the threatened Cochabamba Mountain-Finch (also Bolivian endemic).

Since this KBA native vegetation is profoundly degraded, the ecosystem functions it provides to the valley of Cochabamba (with approximately 1 million inhabitants) are compromised (see map). The most important ecosystem function is the regulation of the water cycle along the year (e.g. under current conditions abundant water flow during the rainy season and extreme drought during the dry months; see here). The peaks of water abundance in the watersheds have already caused several disasters. The most important is the mudslide of Feb 2018 that caused millionaire losses in infrastructure and human lives. Restoring the native vegetation is also important to protect the underground reservoirs of water (see here). It is also important to highlight that circa 90% of the water consumed by the inhabitants of the Cochabamba valley comes from the Tunari national park.

Regional leaders realized in the XX century (70s to 90s) that planting trees was important to decrease the probability of disasters (e.g. mudslides) and promoted the installation of pine/eucalyptus plantations. However, these plantations became an additional threat to the native forests, and definitively do not offer suitable habitat for the local threatened biodiversity. As the administration of the TNP did not allow local communities (that existed way before the establishment of this protected area) to make use of these plantations, local communities became an important actor that is against the existence of this protected area. Through this project we are promoting the sustainable management of the exotic tree plantations by local communities. Thus, family economies in these communities will diversify and become more resilient (rural communities are the poorer families).

4. Project support to the Conventions, Treaties or Agreements

Through this project we aim to help Bolivia achieve the COP 14 (Egypt, 17-29 November 2018) decision 14/5 (Biodiversity and Climate Change) that aims to implement ecosystem-based approaches to climate change adaptation and disaster risk reduction. Through the restoration of native forests, carbon fixation will increase, soil will be restored and protected, and the risk of landslides will be reduced, protecting families living in areas vulnerable to landslides in lower sections of the Tiquipaya municipality.

Through this project we are also aiming to contribute to the Goals for Sustainable Development as explained below:

SDG 1 (No poverty). Resilience to environmental, economic and social disasters will be built for at least four local communities within Tunari National Park. This will be achieved through improving the sustainable use of natural resources within their territories and creating local capacity to develop sustainable development projects.

SDG 5 (Gender Equality). Through activities designed to develop and strengthen leadership in local communities, we will make sure to include the participation of at least 50% of women. Thus, women in these communities will take more active roles in community decision making.

SDG 10 (Reduced inequalities). Incomes of families in at least four communities will diversify and increase thanks to the sustainable forestry management to be developed and implemented through this project. As these communities are among the poorest, we aim to reduce income inequalities.

SDG 13 (Climate Action). Through this project, we aim to strengthen resilience and adaptive capacity to climate-related disasters and promote the development of local capacities for climate change-related planning and management.

The focal point for most treaties is the Vice-minister of Environment, Biodiversity, Climate Change and Forestry Development. We have already contacted this authority and presented the project. We aiming to present project progress at least once each year.

5. Project support to poverty reduction

Water availability for agriculture seriously limits the productivity in this region of Bolivia. Through this project we have secured that water availability increased significantly for families in these communities. Since the start of this project in 2020, we have constructed in total three water reservoirs. Two store 100,000 titres and one over 1,000,000 litres. We still need to estimate the impact of these water reservoirs in local families regarding to its impact on agriculture.

The prohibition of forestry management of exotic trees (pine and eucalyptus) is an important source of conflict between the park administration and communities (when plantations were established with community participation, local people were promised access to this resource). The consequences of this prohibition not only affect the potential development of local families' economies, but created a very tense relationship between the protected area administration and local communities. Local communities see the protected area as the reason for their economic and social problems, and deny its existence. The development of the forestry management plan will help build bridges between these stakeholders. Through this project we will help five communities in the Tiquipaya municipality (Cruzani, Laphia, Linkupata, Thola Pujru and Totora that together sum approximately 200 families) to implement sustainable forestry management. Thus, their economies will diversify. To measure the impact of this project component we are currently developing a socioeconomic baseline information.

6. Gender equality and social inclusion

As stated in our proposal and the last annual report, decision-making in Bolivian indigenous communities is traditionally the role of men. Through the implementation of our project we identified three women from local communities with great leadership potential. These are. Silvia Vargas, Judith Vasquez and Norah Fernandez. We also trained 11 women in total (the tree mentioned included) in leadership and other aspects (e.g. development of sustainable development projects). We expect to see changes in communities' leadership in the coming years.

One of three project concepts were developed by local people (one product of this project) was developed by women. These women are Judith Gonzales, Uvaldina Luna and Aleida Bautista (3 of the 11 trained women).

Finally,

Please quantify the proportion of women on the Project Board[1].	More than 50% of project personnel is formed by women. - Rodrigo Soria (Project Director) - Daniela Aguirre (Project coordinator) - Eneida Zurita (Project Sub-coordinator) - Omar Oporto (responsible of the project's forestry component. - Iván Perez (Administrative Director) - Leny Vargas (Chief accountability) - Margarita Palacios (head of communications).

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].	50% of the four project partners are led by women: - The office of environmental issued of the Cochabamba Regional Government is led by Dora Claros - Our partner organization Faunagua is led by Rosmery Ayala.

[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.

7. Monitoring and evaluation

Members of the core team (Armonía) meet once every week (usually Mondays) to report the progress achieved during the last week, evaluate the progress made toward each output, and discuss what activities to implement during the next week. We also have regular meetings with project partners Faunagua, Tunari national park & Tiquipaya municipal government (during the first period of project implementation these were held once every month, however, during the second period of implementation periodicity of meetings varied from four to six weeks due to time availability of partners. During these meetings we report about the progress achieved, and also evaluate the next activities to be implemented in order to achieve the proposed outputs. During this period of project implementation representatives of Tunari national park and Tiquipaya municipal government had a rate of attendance of 60% and 70%. As an alternative, we opted person to person meetings with these actors.

The M&E we developed for each project output is explained and discussed below:

1) Reforestation programme. During the time saplings are in the nursery, we periodically keep track of the development of saplings (this usually starts in January and last until December of each year). Reforested areas are mapped; thus, we are able to show the location of these areas (see here). We have developed a monitoring plan to keep track of saplings survival during the first 10 years (already explained). Finally, we are also building a monitoring program for long-term landscape changes (through drone images comparison between years).

2) Local communities' economies strengthened and improved (5%). We conducted a socio-economic study to build a database of baseline information. Any socio-economic changes produced by the project interventions (or any other) will be measured by comparing changes detected from the baseline database.

3) Governance and capacity building. The monitoring of progress in governance takes place through a close follow-up of workshops and meetings. We wanted to document progress achieved in a minute book that will be signed by representatives of all stakeholders. However, leaders refused to sign the minute book. We are now simply compiling minutes.

The development of local capacities of local people obtained through the course was evaluated through an evaluation of the attendees.

4) Communication and dissemination. To evaluate changes in opinion, perception and knowledge of people over the Tunari National Park, we conducted surveys across the valley of Cochabamba, especially in Cochabamba municipality (the most populated municipality). We will repeat the survey in September 2023.

5) Monitoring of biodiversity and ecosystem functions. Permanent plots are established right after the conclusion of each reforestation season, and the survival rate of saplings planted between Dec and Mar of each year is measured between May and July (dry season). This monitoring will be conducted for the first years (up to 10). For later changes in the landscape, we will compare high resolution drone images. For this purpose, we already count with a baseline of high resolutions drone images.

To monitor biodiversity changes (key bird species) we established point counts in the project area. A baseline database of key bird populations is built and personnel from the Tunari national park and local communities are being trained. Thus, these actors will continue collecting data in future years (this is part of our agreement with the administration of the Tunari national park).

Ecosystem services will be monitored in three ways: we will calculate the effect of project interventions on water retention, infiltration and water runoff, using a standardized methodology (Soil Conservation Service SCS-CN). Results from meteorological and gauge stations will be used to feed existing datasets and adjust results of water runoff models. Landslide risk will be evaluated periodically using approaches optimized by the Regional Department of River Basins (SDCGAD Cochabamba). To the date, we have obtained a baseline database of water flow in watersheds within the project area. Local people and personnel have also received training already. In 2023 we will develop the protocol

8. Lessons learnt

The most relevant lesson learnt so far, is that longer period of time is required to coordinate activities with project partners that are public institutions. Bureaucratic procedures simply take longer than we thought.

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

Below responses to requests from the previous review:

1) **Please provide an update on the communications activities, including updated Armonia's website, examples of TV/press engagement and social media outreach**. We recognize that communications activities were not well developed yet for the last annual report. Project had started in November 2021 and for March 2022 progresses achieved was limited. Numerous communications activities have been implemented during the last period of project implementation. We had numerous interviews along the last period of implementation. By clicking here you will be able to access copies of nine interviews we had in TV and radio. Unfortunately, we were not able to obtain copies of all interviews, but most of the are included in the link above (two to three are still missing). Between April 2022 to March 2023 we launched 32 posts in our social media networks (Facebook, twitter and Instagram). According to the Facebook metrics, these posts reached 59,510 persons and we recorded 202,519 interactions in total. We assisted to 8 environmental fairs. We estimate to have reached at least 10,000 persons through these events (click here to see a selection of pictures). Diverse printed material was produced for these events (see here). Finally, Armonia's website have been updated (in English and Spanish). Our website counts with a section where the Tunari project is explained. This section is named Acción Andina. Acción Andina is annually contributing to guarantee that the reforestation component of our program continues.
2) **Please provide an update on the finalized baseline information.** The socio-economic database obtained from communities has been consolidated already, and a preliminary analysis has been conducted already. We are currently analysing it to identify the best indicators for future. The Database of socio-economic information can be seen here.
3) **Please provide the updated gender disagrgregated data from the socio-economic survey**. This data can be seen from the database. To have access to the database, please click here.

4) **Please ensure the project expenditure information show the variance as per the comment under seccion 14 of this report**. The variance is now it is properly expressed.
5) **It is not clear if there is any collaboration between the ongoing projects on reforestation (for example project supported by ECOAN, Global Forest Generation and Action Andes and their support in reforestation) and how these activities complement the Darwin initiative project. More clarity/detail on this would be appreciated**. Acción Andina (or Action Andes) is a program initiated by Global Forest Generation. The goal of this program is to restore the critically degraded high Andean native forests dominated by the genus *Polylepis*. Ecoan is the leading South American NGO that leads Action Andes. GFG (through Ecoan) gives funds to Armonia to support the restoration component of this program (Ecoan's role is to monitor the progress of in-the-field actions). During the application process we mentioned the probable contributions of GFG, and reported when GFG was expected to be higher than expected. Agreement with GFG are annual. Each year GFG evaluates the progress we accomplish before signing an agreement for the next year. This year we have already secured funds to continue with the reforestation component of our project for one more season (meaning, reforestations for the next season are already partially funded). This cooperation has allowed us to produce and plant more saplings than initially proposed to Darwin.

● 10. Risk Management

We have already submitted a risk register last year (send together with this report). No new risk has arisen since the date we sent the risk register. The mitigation actions we are implementing is helping us to mitigate these risks to minor and moderate levels (see risk register sent together with this report).

11. Other comments on progress not covered elsewhere

Thanks to success we have with the restoration component, we started a collaboration with AGRECOL, another Bolivian NGO that works in the Tunari to promote agroforestry. Numerous communities in neighbouring municipalities are interested in agroforestry. One of the criteria AGRECOL manages to start an agroforestry project with a new community is that the applicant community needs to reforest the watersheds within its territory.

We constantly highlight that our project exists because the Tunari National Park is a national protected area that protects the most important water source for the Cochabamba metropolitan area, and the water for agriculture and consumption of the same communities. Properly exposed, this argument is changing the position of local communities regarding the protected area and the urgency for reforestation (water is a resource that is critical in this region of Bolivia).

12. Sustainability and legacy

We clearly saw high interest of partners and local communities in training and capacity building. We have even identified key persons who will soon become leaders and we are encouraging their participation in project training workshops.

As mentioned in our proposal, all documents produced through the project (socioeconomic surveys, monitoring protocols, etc.) will be shared with project partners in paper and digital. Later in 2022 we will create a section in our website where these documents will be available to be downloaded.

13. Darwin Initiative identity

All printed material produced like leaflets, banners, posters contains the logo of Darwin Initiative. Only the digital post cards do not contain the logo. But these are used to produce facebook posts, and in each post, Darwin Initiative is mentioned (click here). The videos we produced for the project also have the logo of Darwin Initiative (click here, here and here). Project personnel wear uniforms that contain the logo of Darwin Initiative (for all project activities; click here).

Likewise, Darwin initiative is mentioned in all our communications through our social media platforms (Facebook, Twitter, Instagram).

14. Safeguarding

Biodiversity Challenge Funds are committed to supporting projects develop and strengthen their safeguarding capabilities and capacity to prevent, listen, respond and learn. Defra will not automatically penalise projects where safeguarding concerns are identified, but will help projects respond and learn from the experience.

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes *Iván Perez Hurtado,* [redacted]
Has the focal point attended any formal training in the last 12 months?	No
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 40% [and number] Planned: 100% [and number]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. mportant to reinforce training of managers and staff regarding roles of supervision on this matter, but also share updated channels of communication.	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. We have new person hired to assist the Administrative Director in several matters, including safeguarding measures planification.	

15. Project expenditure

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

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL	**142,501.00**	**141,034.92**		

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.	[redacted]	
Total additional finance mobilised 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

• 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
Impact Communities on the southern slopes of Tunari National Park (TNP) park administration work together to protect threatened biodiversity, ecosystem functions and to implement sustainable development initiatives.		200.000 saplings planted between Dec 2022 and Mar 2023 (only 130,000 were planned). Reforestation program is part of the Tiquipaya municipal plan to manage and protect the watersheds within this municipality. Project impact already scaled up from Tiquipaya municipality to other three municipalities that have territory in the southern slopes of the Tunari national park Communities governing body (OGC) active, and involved in the development of a strategy to protect and manage watersheds in the project area Baseline databases are built to measure the impact of project interventions (in the mid and long-term) Three project concepts developed. These are the foundation of the 5-year strategy for the sustainable development of local communities. Three women identified as potential future leaders in the short-term, and 11 trained in total to become leaders.	[redacted]
Outcome Tiquipaya is the model municipality for protection of ecosystem functions provided by TNP and the sustainable development of local	0.1. Tiquipaya is the first municipality that develops a reforestation program to protect the ecosystem functions and threatened biodiversity within the Key biodiversity Area (KBA) southern slopes of TNP. 0.2. Quechua family economies in Tiquipaya communities within TNP (200 families, totalling approximately 900 persons) have diversified and increased by 5% due to the	0.1. The plan is already consolidated and it is part of (Tiquipaya) municipal management and protection of its watersheds. 0.2. A socio-economic study has been conducted, and now we have a baseline database that will work as reference to measure socio-economic changes.	No further action is required here. By the end of project implementation, a survey is to be conducted to measure changes

communities within this protected area.	implementation of a sustainable forestry management plan. 0.3. Governance and social organizations (including gender equity) and their capacities for sustainable development are strengthened. 0.4. A communications strategy put in place to create suitable conditions in neighbouring municipalities to replicate this project's achievements. 0.5. A monitoring programme to evaluate biodiversity and ecosystem functions is developed and implemented in coordination with key stakeholders.	0.3. The OGC (communities' governance body) is established, significant progress to achieve gender equity has been achieved at leadership levels and local capacities for sustainable development improved significantly. 0.4. Communications activities implemented along the 2022-23 period were key to expand the project's restoration component to three neighbouring municipalities. 0.5. Monitoring protocol for reforested areas is consolidated. Baseline information for monitoring of biodiversity and ecosystem functions are built and key stakeholders have been trained to conduct monitoring activities in the future.	Follow up the performance of the OGC. Continue fostering the consolidation of potential female leaders. Two municipalities still remain. We will conduct activities to establish agreements with these two municipalities. Training of local stakholders to collect data for biodiversity and ecosystem functions will continue and te protocols (documents) will be written down and shared with all stakeholders.
Output 1. A five-year native forest restoration program is consolidated with the participation of key stakeholders (local communities within the TNP, protected area and municipal authorities and other key stakeholders).	1.1. Areas for habitat restoration identified and mapped (during the first semester of project implementation). 1.2. At least 130,000 saplings of native tree species produced annually in project partners nurseries are planted every year. 1.3. An anti-wildfires infrastructure and irrigation system built (two 100,000 litre reservoirs and water distribution). 1.4. At least 50 persons from local communities are trained and equipped to fight wildfires, and become volunteer members of the local firefighter group.	1.1. An updated map of reforested areas can be accessed. A map of areas to be reforested in coming years can be accessed. 1.2. We produced and planted 200,000 saplings of native trees during the 2022-23 period (140,070 were planted during the period 2021-22). 1.3. Two water reservoirs built and 13.5 km of pipes for water distribution have been distributed. 1.4. Fifty-one members from local communities trained as forest firefighters. Only 35 were fully equipped (those committed to the complete training course). Further training will take place in 2023 and we expect to equip over 15 new firefighters.	
Activity 1.1 Elaboration of detailed maps for the study area		We already have a map of the project area elaborated and shared with Darwin Initiative. The map already contains reforested areas since 2020 until the last period (2022-23)	Map is annually updated

Activity 1.2. Coordination of tree nursery management with project partners (sapling production, saplings breeding, etc.).	200,000 saplings produced during the 2022-23 period. These saplings were planted between Dec 2022 and Mar 2023 (rainy season).	The projected number of saplings to be planted next period (2023-24) is 300,000 saplings.
Activity 1.3 Monthly update of track of the number of species and number of individuals being produced in partners nurseries	This activity is conducted constantly by Armonia's personnel that works full time in the nursery	Work to be conducted by Armonia's personnel in 2023-24 period
Activity 1.4 Organization of reforestation campaigns in coordination with project partners.	12 reforestation campaigns were organized this last period. These reforestations took place in nine communities located in four municipalities (Quillacollo, Sacaba, Tiquipaya and Vinto.	Coordination with this communities will continue along the 2023-24 period. W will aim to increase the number of municipalities to be included.
Activity 1.5 Construction of two water reservoirs in coordination with all stakeholders.	Two water reservoirs constructed during this period (2022-23) with Darwin funds	No further action required
Activity 1.6 Installation of at least 10 km of a water distribution network to distribute water toward most fire-vulnerable areas.	13,5 km of pipes delivered among local communities.	Evaluation of the use of pipes.
Activity 1.7 Organization of training courses in coordination with firefighters of Cochabamba.	Fifty-one local people trained. Training courses took place in July and August (2022). Firewalls constructed in August. A protocol to minimize the risk of fires was developed. Local people participated actively in workshops organized to this end.	Training will continue in the 2023-24 period.
Activity 1.8 Organization of an event to deliver certificates to local people trained in firefighting.	The event took place last year by November.	No further action required

Output 2. A sustainable forestry management plan is developed to manage forestry plantations of exotic trees (eucalyptus and pines), and approved by all stakeholders (local communities, TNP administration, the state office in charge of national protected areas and the Tiquipaya municipal government).	2.1. Forestry management plan is approved by local communities involved (area for forestry well identified, volumes of annual wood extraction defined, and social regulations clearly defined). 2.2. TNP administration and the Tiquipaya municipal government endorse the forestry management plan and coordinate with each forestry supervisor the implementation of the forestry management plan. 2.3. One chainsaw, 2 sets of protection and one portable sawmill have been delivered to local communities. This equipment will be under the supervision of a designated supervisor chosen by all communities.	2.1. The subcentral (or sindicato) 13 de Agosto has given its approval to the management plans we developed for the pilot plots. 2.2. Municipal authorities are already aware of the management plan developed and have no observations. However, certifications of support is yet to be issued. The national office in charge of approving forestry management plans have already given its approval. We are still waiting for the approval of the Tunari national park, which depends on the decision of SERNAP (the national office that administrates the national protected areas) 2.3. Equipment has been already acquired; its delivery will be after agreements are signed.	
Activity 2.1. Elaboration of the forestry management plan (mapping, field work to estimate wood availability, extraction rate, replacement rate, etc.).		Already concluded for communities of Thola Pujru and Laphia	We will visit the SERNAP headquarters in La Paz to find out the reason for the lack of response by the SERNAP regarding to the approval of the management plans.
Activity 2.2. Presentation of the forestry management plan to all stakeholders		The plans were presented to the communities in July	
Activity 2.3 Organisation of at least one meeting/workshop to promote discussion about the management plan. Thus, stakeholders' inputs are incorporated in the management plan.		Several meetings took place along the 2022-23 period.	
Activity 2.5 Acquisition of equipment for forestry management		Equipment was acquired by the end of the 2022-23 period	The equipment has not been delivered to local communities yet. Before delivering the equipment, we will sign agreements with stakeholders to guarantee its proper use

Output 3. A platform formed by representatives of local communities, the TNP, and the Tiquipaya municipal government is established. This platform helps to the communities' governance body to develop and promote the sustainable development of local communities and protection of ecosystem services within the TNP.	3.1. Through a series of workshops and meetings all stakeholders are brought together to improve the organization of the governance body for local communities (gender equality will be encouraged). The local communities' governance body will establish a channel of regular communication with representatives from: 1) TNP and 2) the municipal government through this platform. This platform role is: 1) to help strengthen a five-year sustainable development strategy developed by communities and promote the conservation of ecosystem functions. 2) to promote and supervise the implementation of the strategy 3.2. Before the conclusion of the third semester of project implementation, the communities' governance body presents at least two concept projects (sustainable development and protection of ecosystem functions) to the ministries of: 1) Rural Development and Lands, and 2) Productive Development and Plural Economy and 3) Environment and Water. 3.3. With the support of this Darwin project, the communities' governance body presents at least two concept projects to at least three international cooperation agencies present in Bolivia.	3.1. A) We reached agreements with local communities to have regular meetings to help the communities' governance body strengthened. B) We also regularly attended the regular meetings that all communities have every month. C) We helped in the development of the communal plan, which is going to be used to develop the 5-year strategy. D) We assisted to the OGC to develop its 2023 operative plan. E) We facilitated for all stakeholders to set together and created the platform. The conformation of the platform was achieved through several meetings. 3.2. A) A training course was organized to create (improve) local capacity in leadership and the development of sustainable development projects. Twenty-one persons (from local communities) concluded the complete training (11 women). Three project concepts were developed as a result of this process of training. B) these concepts are the foundation for the 5-year strategy which is being constructed together with local people.	
Activity 3.1 Frequent visits communities to implement diverse activities with women (key to identify potential leaders).		Armonia's team visited local communities at least two times each community per month to conduct the multiple activities (talk with key community members), organize meetings and workshops planning activities (e.g. the course and workshops) and the training courses.	Continue pushing to help identified female leaders to pursue leadership positions within their communities.

Activity 3.2 Organization of workshops and meetings (at least 5) to make the needed progress to consolidate the formation of the governance body (composed by representatives of local communities) and the platform (where local communities, municipal authorities and a representative of the Tunari National park take part), and its compatibility with already existing social organisational structures	Workshops took place from June 2022 to March 2023. As a result, the communities' governance body (OGC) was consolidated. OGC's statutes and regulations were reviewed and updated. This was advantageous to start the elaboration of a communal plan (led by the NGO Kurmi). Meetings to form the platform began in April 2022. Monthly meetings were organized until September 2022. The Tiquipaya municipal government took the lead in this process. In April 2023 the OGC took the lead to develop its first annual operative plan. For this process, the OGC invited to Armonía, other NGOs and the municipal government (this shows the OGC is becoming fundamental for planning).	Monitor and guide the performance of the OGC. Facilitate the communications between members of the platform.
Activity 3.3 Several workshops and meetings to elaborate and present the 5-year strategy (to strengthen sustainable development and protection of biodiversity/ecosystem functions).	Prior to the development of the elaboration of the 5-year strategy, we helped local communities (a process led by the NGO Kurmi) to develop a communal plan.	Development of the strategy
Activity 3.4 At least three workshops and meetings to elaborate at least two projects (products of the 5-year strategy developed) to foster the sustainable development of local communities and protection of biodiversity/ecosystem functions.	As we realized that three workshops are not enough to elaborate project, we decided to conduct a course to strengthen leadership and also to train local people to elaborate sustainable development projects. This course took place between August and November. Three concept projects were developed by the attendees (one developed only by women).	No further action required
Activity 3.5 Presentation of project to the governing body for further discussions and project improvements.	The project concepts were presented to the OGC, the municipal government and other NGOs that work in the same area. Suggestions were made by attendees to the presentation. Subsequently presentations were organized to present the project in each community.	Help local communities to open spaces with ministries and international cooperations to show their projects

Output 4. Project's environmental and social impacts are evaluated through the development of monitoring protocols implemented with the participation of stakeholders.	4.1. A monitoring program to keep track of reforested areas and the survival rate of planted trees is developed. This programme is carried out by TNP and the Tiquipaya municipal government with the assistance of Asociación Armonía. 4.2. Bird species population monitoring program for threatened key species and species that depend on the critically degraded native vegetation (e.g. Cochabamba Mountain-finch, Giant Conebill and Tawny Tit-Spinetail) is developed by Armonía and implemented by personnel of the TNP and local communities. 4.3. A monitoring protocol to evaluate local water retention by project interventions (reforestation, water reservoirs) and environmental flow in micro basins (within the Tiquipaya municipality) is developed and implemented in coordination with the Tiquipaya municipal government and other NGOs.	4.1. This protocol has been already developed and shared with stakeholders. 4.2. Point counts were defined in the field. Data collection started in 2022. We built a comprehensive baseline database of birds in the study area. Key stakeholders have participated in the data collection (practical training). However, the document of the protocol still needs to be written down. Thus, the document will be used as a reference to make sure data collection is consistent (standardized) through the years. 4.3. Our partner Faunagua has conducted the needed studies to build the baseline database of water flow and water retention (under current conditions). Its personnel also trained key stakeholders in conducting the field work. In 2023 Fanuagua will write the protocol. This document will be shared with key stakeholders.	
Activity 4.1 Development and implementation of protocol to monitor the survival and development of saplings planted		Already developed and shared with Darwin and stakeholders. Local stakeholders training also started.	Continue training key stakeholders
Activity 4.2 Development and implementation of the protocol to monitor key biodiversity (threatened and vulnerable species)		Protocol developed and implemented already to build the baseline database.	A document where the protocol is detailed is still needs to be written in a simple language and shared with stakeholders

Activity 4.4 Meetings with potential participants – monitoring programme (e.g. bird watchers, park rangers, etc.)	Meetings and in field training with Park guards and key local people already ongoing	Further training to be implemented in 2023-24 period.
Activity 4.5 Implementation of socioeconomic study (baseline of socioeconomic conditions in local communities)	We worked together with a economist who helped us as volunteer to design the surveys. To obtain data, we trained 10 community members as pollsters. We obtained socio-economic data from 70% of the target population.	Data analysis and identification of the best indicators.
Activity 4.8 Optimize drone applications for the monitoring of vegetation coverage	Drone flights took place during the 2021-22 and 2022-23 period. We have now a database of high-resolution images for 17 reforested plots.	Place the images and its metadata in a virtual page where they will be accessible to te public.
Activity 4.9 Quantify water retention of project interventions (reforestation, reservoirs) at the microscale using an existing methodology optimized in the study area and translate this impact in terms of local socioeconomic benefit.	Fieldwork conducted along 13 plots by personnel of Faunagua using standardized methodology.	
Activity 4.10 Implement a monitoring station that consists of a meteorological and gauge station and that can be implemented by local communities through a citizen science framework	Three portable weather stations were installed in the three watersheds in the study area (one for each watershed) and local people were trained, so the trained persons can take measures periodically. As a backup, the stations store data automatically.	The Tiquipaya municipal government will help us extent internet coverage to the sites where the stations are located. Thus, data can be downloaded automatically by the municipal government.
Activity 4.11 Monitor short term and long term (future projected) changes in vegetation cover in native forests and plantations and model the impact of changes in water retention and infiltration on the stream water flow and on the water balance in the river basin.	Study concluded (see here). This report provides the baseline database for measuring future changes when forest increased as a result from reforestations	

Activity 4.12 Measure monthly stream flows and use obtained data to adjust the water balance model for the three watersheds in Tiquipaya municipality and establish environmental flows		Study concluded (see here)	
Activity 4.14 Implement environmental and biological indicators (riparian bird indicators, surface area covered by riparian aliso forest) that can be used to monitor environmental quality and changes at the watershed level		Study concluded. No riparian bird can be used as indicator. Forest it self might work as a source to stabilize soil (see here)	
Activity 4.15 Develop and adjust the protocol to monitor waterflow and other ecosystem services.		Protocol is already designed, and training of local people to measure weather flow was already conducted (See here).	protocols will be written down in a easy-to-understand language (avoiding technical jargon)
Activity 4.16 Printing and distribution of a document that contains all developed protocols.		Not yet printed	Document to be printed
Output 5. Appropriate audiences (municipal authorities, local community leaders, civil society organizations, and general public) in neighbouring municipalities are reached, thus creating suitable conditions to replicate this experience.	5.1. Project achievements and impacts are presented to municipal governments and key civil society organizations in neighbouring municipalities (Cochabamba, Quillacollo, Sacaba and Vinto) through public presentations and meetings (at least one per municipality). 5.2. At least two TV interviews to talk about project goal and objectives (first year or project implementation), and achievements and impacts (before the conclusion of second year of project implementation). 5.3. At least one newspaper article about TNP and the project progress published per semester.	5.1. Initial conversations with representatives from three neighbouring municipalities of Quillacollo, Sacaba and Vinto started during the 2021-22 period. During this period, we consolidated partnership with these municipalities (actually, some reforestations already took place in communities within these municipalities). We also presented the achievements of this project to the regional legislative council of Cochabamba (oral presentation). 5.2. During this period, we had three TV interviews and two radio interviews recordings of these interviews can be accessed here 5.3. Two notes in a local newspaper during this period. Unfortunately, we couldn't find the digital version of the notes. 5.4. Three video clips have been published during this period. These have been broadcasted through our social media (Facebook and Twitter and Instagram). These videos were also displayed in several public places for a short period of	

	5.4. Three video clips produced. The first video clip will focus on the critical conservation status of the threatened biodiversity and the ecosystem functions affected by the current state of native ecosystems in this part of the TNP, and how important is to preserve native ecosystems for disaster prevention. The second clip will focus on the participation and commitment of different stakeholders to achieve this projects goal. And the third video will show the achievements and impacts reached through the project. 5.5. Brigades are formed in coordination the institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH that will visit schools and other sites to inform people about the critical conservation status of the TNP and its importance for the inhabitants of Cochabamba. 5.6. The impact of communication activities is evaluated through surveys of public opinion (evaluations are implemented during the first and last semester of project implementation).	time (e.g. bus terminal), public events, etc. videos are stored in Armonia's youtube channel and can be accessed by clicking here, here and here. 5.5. Though we were not able to visit school, we organized small groups to attend eight environmental fairs along the last 12 months. Abundant informative material was produced for this purpose [redacted] 5.6.1. initial survey evaluations were conducted during the 2021-22 period. Another survey evaluation will be conducted by September 2023.	
Activity 5.1 Regular meetings with local and regional authorities are organized to keep informed about project progress and achievements		Regular formal and informal meetings with representatives of Tiquipaya municipal government and the Cochabamba regional government.	we will continue having formal and informal meetings
Activity 5.2 Meetings with municipal authorities from neighbouring municipalities		Besides the normal meetings we have with representatives from neighbouring municipalities, we attended some events organized by these municipalities.	Presentación pública del proyecto en municipios vecinos a Tiquipaya (Actividad 5.3) previsto para el 2023.

Activity 5.3 Organization of at least one public presentation per municipality	These activities were conducted during the 2021-22 period	
Activity 5.4 Meeting/workshops with potential partners (journalists, and other key pertners) for communication and dissemination	We had a meeting with the association of radio stations to organize a calendar for the broadcasting of radio spots we prepared	future meeting will take place during 2023
Activity 5.5 Construction of a calendar of probable interviews	Though we initially developed a calendar to plan interviews along the year, interviews happened in a different order as planned	
Activity 5.6 Elaboration of videoclips (footage collection in the field, and edition)	Three video clips produced during this period	a fourth video will be produced in 2023 (with contributions of GFG).
Activity 5.7 Meetings and training wokshops to teachers and students of the Institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH	Only a small number of students participated in training workshops. These small group attended to eight environmental fairs. Diverse material was used in these fairs.	In 2023 a group of volunteers will join these activities
Activity 5.8 Development of a plan of activities for teachers and students of the Institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH.		
Activity 5.9 During the first two months of project implementation a survey will be conducted to evaluate the perception and opinion of people in Cochabamba valley over the Tunari National park. This survey will be repeated two months before the conclusion of the project.	The first survey was conducted during the period 2021-22.	Next survey will be conducted later in 2023

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

This logframe is the latest approved under the change request sent in December 2022

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Communities on the southern slopes of Tunari National Park (TNP) and the park administration work together to protect threatened biodiversity, ecosystem functions and to implement sustainable development initiatives (Max 30 words)			
Outcome: (Max 30 words) Tiquipaya is the model municipality for protection of ecosystem functions provided by TNP and the sustainable development of local communities within this protected area.	0.1 Tiquipaya is the first municipality that develops a reforestation program to protect the ecosystem functions and threatened biodiversity within the Key biodiversity Area (KBA) southern slopes of TNP. 0.2 Quechua family economies in Tiquipaya communities within TNP (200 families, totalling approximately 900 persons) have diversified and increased by 5% due to the implementation of a sustainable forestry management plan. 0.3 Governance and social organizations (including gender equity) and their capacities for sustainable development are strengthened. 0.4 A communications strategy put in place to create suitable	0.1.1 A five-year reforestation plan is approved by the Tiquipaya municipal government and the TNP. 0.2.1 Socio-economic impact study of the project published and shared with stakeholders. 0.3.1 Social organization consolidated and recognized by the municipal and regional governments. 0.3.2 At least two concept projects developed by local leaders with our support that aim to strengthen the sustainable development of local communities and protection of ecosystem services. 0.4.1 A report that details the impact of the diverse activities implemented as part of this project's communication strategy.	No political crisis that potentially might interrupt the successful implementation of this project takes place in the next three years. It is a reasonable assumption as last national elections outcome (October 2020) has been accepted by all parties.

	conditions in neighbouring municipalities to replicate this project's achievements. 0.5 A monitoring programme to evaluate biodiversity and ecosystem functions is developed and implemented in coordination with key stakeholders	0.5.1 a document describing the protocols of the monitoring programme printed and distributed among key stakeholders.	
Outputs: **1**. A five-year native forest restoration program is consolidated with the participation of key stakeholders (local communities within the TNP, protected area and municipal authorities and other key stakeholders).	1.1 Areas for habitat restoration identified and mapped (during the first semester of project implementation). 1.2 At least 130,000 saplings of native tree species produced annually in project partners nurseries are planted every year. 1.3 An anti-wildfires infrastructure and irrigation system built (two 100,000 litre reservoirs and water distribution). 1.4 At least 50 persons from local communities are trained and equipped to fight wildfires and become volunteer members of the local firefighter group.	1.1.1 A map that shows the location of areas where habitat restoration takes places in the next five years is elaborated during the first semester of project implementation and shared with Darwin Initiative and all stakeholders. 1.2.1 A five-year management plan is developed for the municipal tree nursery and approved by the municipal government. Thus, the production of at least 130,000 native saplings per year is guaranteed, and its implementation (management plan) is evaluated every year. 1.2.2 The map (see 1.1.1) is updated annually to show areas where habitat restoration activities have been implemented. The map is part of an annual report and is available at Armonia's website (as well as other websites).	All stakeholders endorse this initiative. This assumption is reasonable as we have already initiated some activities with all stakeholders

		1.3.1 A report produced by the administration of TNP on the anti-wildfire infrastructure built. 1.4.1 The Cochabamba firefighter body prepares a detailed report of the training courses. The report includes the complete name of participants and the communities to which each participant belongs. 1.4.2 Local communities report in detail the equipment distributed through this Darwin project. The report is shared with all stakeholders. 1.4.3 The Cochabamba firefighter body issues (1) a certificate to trained persons, and (2) a written commitment from participants to assist the firefighters when wildfires take place in Tiquipaya municipality territory that is within the Tunari national park.	
2. A sustainable forestry management plan is developed to manage forestry plantations of exotic trees (eucalyptus and pines), and approved by all stakeholders (local communities, TNP administration, the state office in charge of national protected areas and the Tiquipaya municipal government).	2.1 Forestry management plan is approved by local communities involved (area for forestry well identified, volumes of annual wood extraction defined, and social regulations clearly defined). 2.2 TNP administration and the Tiquipaya municipal government endorse the forestry management plan and coordinate with each forestry supervisor (see 2.1.2) the	2.1.1 The governance body for local communities issues certificates that express their conformity with the forestry management plan. 2.1.2 The governance body for local communities designates a member of its directory to take over the responsibility to supervise forestry activities. 2.2.1 Documents issued by the TNP and the Tiquipaya municipal government to express their	The office of national protected areas and the Ministry of environment and water (MMAyA) endorse this initiative. This assumption is reasonably as the MMAyA through its vice-ministry of Hydric Resources and Watersheds have supported already projects to strengthen local communities' sustainable

	implementation of the forestry management plan. 2.3 One chainsaw, 2 sets of protection and one portable sawmill have been delivered to local communities. This equipment will be under the supervision of a designated supervisor chosen by all communities (see 2.1.2).	conformity/approval of the forestry management plan. 2.3.1 The governance body for local communities prepares a report that details the equipment delivered through this Darwin project.	development within protected areas in the last years.
3. A platform formed by representatives of local communities, the TNP, and the Tiquipaya municipal government is established. This platform helps to the communities' governance body to develops and promotes the sustainable development of local communities and protection of ecosystem services within the TNP.	3.1 Through a series of workshops and meetings all stakeholders are brought together to improve the organization of the governance body for local communities (gender equality will be encouraged). The local communities' governance body will establish a channel of regular communication with representatives from: 1) TNP and 2) the municipal government through this platform. This platform's role is: 1) To help strengthen a five-year sustainable development strategy developed by communities and promote the conservation of ecosystem functions. 2) To promote and supervise the implementation of the strategy. 3.2 Before the conclusion of the third semester of project implementation, the communities' governance body presents at least two concept	3.1.1 Report with the number of persons from each local community that participated in the meetings and workshops 3.1.2 Names of persons from local communities trained to design projects. 3.1.3 Statutes and regulations developed for the management committee and approved written prove of its insertion within already existing mechanism of coordination between all stakeholders. 3.1.4 The five-year strategy developed. 3.2.1 Project concepts shared with Darwin Initiative. 3.2.2 Proofs that projects are submitted to the ministries shared with Darwin Initiative. 3.3.1 Proof that projects are submitted to International cooperation agencies present in	Local communities, the TNP and the Tiquipaya municipal government reach agreements. Local people are keen to receive training in designing sustainable development and conservation projects.

	projects (sustainable development and protection of ecosystem functions) to the ministries of: 1) Rural Development and Lands, and 2) Productive Development and Plural Economy and 3) Environment and Water. 3.3 With the support of this Darwin project, the communities' governance body presents at least two concept projects to at least three international cooperation agencies present in Bolivia.	Bolivia are shared with Darwin Initiative.	
4. Project's environmental and social impacts are evaluated through the development of monitoring protocols implemented with the participation of stakeholders.	4.1 A monitoring program to keep track of reforested areas and the survival rate of planted trees is developed. This programme is carried out by TNP and the Tiquipaya municipal government with the assistance of Asociación Armonía. 4.2 Bird species population monitoring program for threatened key species and species that depend on the critically degraded native vegetation (e.g. Cochabamba Mountain-finch, Giant Conebill and Tawny Tit-Spinetail) is developed by Armonía and implemented by personnel of the TNP and local communities. 4.3 A monitoring protocol to evaluate local water retention by	4.1.1 The monitoring plan is printed and shared with all stakeholders, Darwin Initiative and others. 4.2.1 Monitoring protocol printed and shared with all stakeholders, Darwin and others. 4.2.2 Written commitment with the personnel of the Tunari National Park and the *OGC. 4.3.1 The protocol is printed and shared with the Tiquipaya municipal government and other stakeholders. 4.3.2 The Tiquipaya municipal government ratifies and signs a commitment to incorporate the implementation of the monitoring protocol every year.	Key stakeholders are committed to the implementation of activities beyond the duration of this project.

	project interventions (reforestation, water reservoirs) and environmental flow in micro basins (within the Tiquipaya municipality) is developed and implemented in coordination with the Tiquipaya municipal government and other NGOs.		
5. Appropriate audiences (municipal authorities, local community leaders, civil society organizations, and general public) in neighbouring municipalities are reached, thus creating suitable conditions to replicate this experience.	5.1 Project achievements and impacts are presented to municipal governments and key civil society organizations in neighbouring municipalities (Cochabamba, Quillacollo, Sacaba and Vinto) through public presentations and meetings (at least one per municipality). 5.2 At least two TV interviews to talk about project goal and objectives (first year or project implementation), and achievements and impacts (before the conclusion of second year of project implementation). 5.3 At least one newspaper article about TNP and the project progress published per semester. 5.4 Three video clips produced. The first video clip will focus on the critical conservation status of the threatened biodiversity and the ecosystem functions affected by the current state of native ecosystems in this part of the	5.1.1 A report of all presentations that summarizes: 1) discussion that took place in each presentation, 2) a systematization of opinions, 3) identification of key actors and 4) List of attendees to each presentation. 5.2.1 Interviews recorded and delivered. 5.3.1 A portfolio with all newspaper notes delivered. 5.4.1 A portfolio with detailed information of the means used to broadcast (TV channels, public large screens in bus terminal, airport, social media, etc.) the video clips. 5.5.1 A report prepared by principal of the Institute o Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH that summarizes the number of sites visited, and the number of persons reached. 5.6.1 Reports of surveys delivered.	Key actors in neighbouring municipalities give us space to present the project Key journalists give us space in newspapers, TV channels and other spaces.

	TNP, and how important is to preserve native ecosystems for disaster prevention. The second clip will focus on the participation and commitment of different stakeholders to achieve this projects goal. And the third video will show the achievements and impacts reached through the project. 5.5 Brigades are formed in coordination the institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH that will visit schools and other sites to inform people about the critical conservation status of the TNP and its importance for the inhabitants of Cochabamba. 5.6 The impact of communication activities is evaluated through surveys of public opinion (evaluations are implemented during the first and last semester of project implementation).		

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

1.1 Elaboration of detailed maps for the study area.

1.2 Coordination of tree nursery management with project partners (sapling production, saplings breeding, etc.).

1.3 Monthly update of track of the number of species and number of individuals being produced in partners nurseries

1.4 Organisation of reforestation campaigns in coordination with project partners.

1.5 Construction of two water reservoirs in coordination with all stakeholders.

1.6 Installation of at least 10 km of a water distribution network to distribute water toward most fire-vulnerable areas.

1.7 Organisation of training courses in coordination with firefighters of Cochabamba.

1.8 Organisation of an event to deliver certificates to local people trained in firefighting.

2.1 Elaboration of the forestry management plan (mapping, field work to estimate wood availability, extraction rate, replacement rate, etc.).

2.2 Presentation of the forestry management plan to all stakeholders

2.3 Organisation of at least one meeting/workshop to promote discussion about the management plan. Thus, stakeholders' inputs are incorporated in the management plan.

2.4 Presentation of the management plan to the SERNAP (Bureau of the Bolivian system of Protected Areas) and the MMAyA (Ministry of Environment and Water).

2.5 Acquisition of equipment for forestry management

2.6 Delivery of forestry management equipment to local communities.

3.1 Frequent visits communities to implement diverse activities with women (key to identify potential leaders).

3.2 Organization of workshops and meetings (at least 5) to make the needed progress to consolidate the formation of the governance body (composed by representatives of local communities) and the platform (where local communities, municipal authorities and a representative of the Tunari National park take part), and its compatibility with already existing social organisational structures.

3.3 Several workshops and meetings to elaborate and present the 5-year strategy (to strengthen sustainable development and protection of biodiversity/ecosystem functions).

3.4 At least three workshops and meetings to elaborate at least two projects (products of the 5-year strategy developed) to foster the sustainable development of local communities and protection of biodiversity/ecosystem functions.

3.5. Presentation of project to the governing body for further discussions and project improvements.

3.7 Elaboration of a calendar to visits to ministries and international cooperation missions in La Paz.

3.8 Visits to ministries and international cooperation missions present in La Paz (at least two representatives of communities and one project personnel).

3.9 Community leaders apply for funds and Armonía offer support.

4.1 Development and implementation of protocol to monitor the survival and development of saplings planted

4.2 Development and implementation of the protocol to monitor key biodiversity (threatened and vulnerable species)

4.3 Socialization of both protocols with all stakeholders and organisation of training workshops.

4.4 Meetings with potential participants – monitoring programme (e.g. bird watchers, park rangers, etc.)

4.5 Implementation of socioeconomic study (baseline of socioeconomic conditions in local communities)

4.6 Development of a protocol to measure project's socioeconomic impacts

4.7 A Second survey conducted by the end of the project to measure socio economic impacts

4.8 Optimize drone applications for the monitoring of vegetation coverage

4.9. Quantify water retention of project interventions (reforestation, reservoirs) at the microscale using an existing methodology optimized in the study area and translate this impact in terms of local socioeconomic benefit

4.10. Implement a monitoring station that consists of a meteorological and gauge station and that can be implemented by local communities through a citizen science framework

4.11. Monitor short term and long term (future projected) changes in vegetation cover in native forests and plantations and model the impact of changes in water retention and infiltration on the stream water flow and on the water balance in the river basin.

4.12. Measure monthly stream flows and use obtained data to adjust the water balance model for the three watersheds in Tiquipaya municipality and establish environmental flows

4.13. Evaluate the relation between short-term and long-term reforestation impacts and landslide risk in vulnerable and prioritized areas, in coordination with regional technical authorities

4.14. Implement environmental and biological indicators (riparian bird indicators, surface area covered by riparian aliso forest) that can be used to monitor environmental quality and changes at the watershed level

4.15 Develop and adjust the protocol to monitor waterflow and other ecosystem services.

4.16 Printing and distribution of a document that contains all developed protocols.

5.1 Regular meetings with local and regional authorities are organised to keep informed about project progress and achievements

5.2 Meetings with municipal authorities from neighbouring municipalities

5.3 Organization of at least one public presentation per municipality

5.4 Meeting/workshops with potential partners (journalists, and other key partners for communication and dissemination

5.5 Construction of a calendar of probable interviews

5.6 Elaboration of videoclips (footage collection in the field, and edition)

5.7 Meetings and training wokshops to teachers and students of the Institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH

5.8 Development of a plan of activities for teachers and students of the Institute of Technical Training in Forestry, Agronomy and Environmental Sciences Cochabamba BTH.

5.9 During the first two months of project implementation a survey will be conducted to evaluate the perception and opinion of people in Cochabamba valley over the Tunari National park. This survey will be repeated two months before the conclusion of the project.

● Annex 3: Standard Indicators

The Biodiversity Challenge Funds (BCFs) use high quality and accessible Monitoring, Evaluation and Learning (MEL) to enable scaling, replication and increase the impact of the funds and the projects we support.

By asking project teams to align indicators with the Darwin Initiative Standard Indicators, we aim to increase our contribution to the global evidence base for activities that support biodiversity conservation, poverty reduction and capability & capacity.

The tables below are provided to assist project teams in reporting against Standard Indicators. Please report against the Standard Indicators that you have selected specifically for your project in Table 1 below. Refer to the Standard Indicator Guidance & Menu available on the Darwin Initiative website for guidance on how to select indicators, as well as how to disaggregate reporting within your chosen indicators.

New projects should complete the Y1 column and also indicate the number planned during the project lifetime. Continuing projects should copy and paste the information from previous years and add in data for the most recent reporting period.

We recognise that our menu cannot cover all the potential monitoring needs for all projects – where necessary you can select indicators from other sources or develop your own. See our BCF MEL guidance on best practices for selecting and developing 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-A01	Course: Firefighting training	Number of local actors trained in firefighting	People	Men & female 4 días (6 hrs/día)	0	51	15	0	66
DI-A01	Course: Project development and management	Number of people trained in project development and management	People	Men & female 13 semanas (6,5 hrs/semana. Total: 85 horas)	0	21	0	0	21
DI-A01	Workshop: Training in flow measurement	Number of people trained in flow measurement	People	Men & female 1 día (5 hrs)	0	26	0	0	26
DI-A01	Workshop: Survey interview	Number of people trained to conduct public opinion surveys on the PNT	People	Men & female 1 día (4 hrs)	13	0	20	13	33
DI-A01	Workshop: Socioeconomic surveys	Number of people trained in socioeconomic surveys	People	Men & female of comunities 1 día (8 hrs)	0	10	0	0	10
DI-A02	Forestry student internship	Number of student trainees in forestry	People	Men & female	1	1	1	1	3
DI-A03	Course: Monitoring of biodiversity, watersheds and participatory methodologies	Number of local institutions trained in monitoring biodiversity, watersheds and participatory methodologies	Number of organizations	DMyMT of the municipal government of Tiquipaya (staff) SERNAP PNT (park rangers)	0	0	2	0	2
DI-A04	Workshop: Production of native plants in nurseries	Number of people trained in the production of native plants in nurseries	People	Men & female Students, municipal technicians, communities	0	38	20	0	58

DI-A06	Two 100,000 litre reservoirs and water distribution	Number of families benefited from the water reservoirs	Families	Families	60	72	0	60	132
DI-B01	Elaboration and printing of forestry management plan	Number of forest management plans	Number	Exotic pine and eucalyptus plantations	1	1	1	1	3
DI-B05	Establishment of a governance boy named Oganismo de Gestion de Cuencas formed by communities' representatives	Number of people involved with the governance body named Organismo de Gestión de Cuencas	People	Men & female of communities	10	20	20	10	50
DI-B12	Contribution to the Integral Watershed Management Plan of the Municipality of Tiquipaya	Number of watershed management plans in the Tiquipaya municipality supported by the project	Number	Municipal Plan	0	1	0	1	1
DI-C01	Elaboration and printing of monitoring protocols	Number of monitoring protocols	Number	Reforested areas, watersheds, key biodiversity and forest fire control	1	0	4	1	5
DI-C02	Study of the bird population on the southern slope of the Tunari National Park	Number of assessments of bird populations in Tunari National Park	Number	Birds, regional, point count	0	10	0	1	1
DI-C12	None	Social Media presence with publications	Number	Click-through rate (Facebook)	5,347	59,510	50,000	1452	4930
DI-C14	Events organized to disseminate project achievements	Number of decision-makers attending brief events (GAM Tiquipaya, GAD Cochabamba, PNT, OGC, Subcentral 13 de Agosto, líderes de las comunidades)	Number	Events organized Events that project personnel attended and presented the project	17	21	10	17	48
DI-C15	TV interviews	Number of interviews and reports on television	Number	Local and national television	2	3	2	2	5

DI-C15	Internet interviews	Number of interviews through internet media	Number	Local	0	2	2	0	4
DI-C15	Broadcasting of the project by radio	Number of radial wedges	Number	Local and metropolitan (5 radios)	0	4	0	0	4
DI-C15	Elaboration of informative video clips	Number of video clips	Number	Videos y cápsulas	1	5	2	1	8
DI-C15	Design and printing of informative leaflets	Number of informative leaflets	Number	-	2,000	3,000	3,000	2,000	8,000
DI-C15	Design and printing of informative banners about the project	Number of informative banners and placard	Number	-	3	5	5	3	13
DI-C16	Socioeconomic conditions of local communities (to be updated periodically)	Number of records added to accessible databases	Number	Socioeconomic databases	0	1	0	0	1
DI-C16	Tree nursery production database (to be updated every year)	Number of records added to accessible databases	Number	Tree nursery production database	1	0	0	0	1
DI-C16	Forestry management plan database (to be updated every year)	Number of records added to accessible databases	Number	Forestry management plan database	1	2	0	1	3
DI-C16	Watersheds flow database (to be updated every year)	Number of records added to accessible databases	Number	Watersheds flow database	0	1	0	0	1
DI-C16	Key biodiversity data base (to be updated periodically)	Number of records added to accesible databases	Number	Key biodiversity data base	0	1	0	0	1
DI-C17	Socioeconomic analysis of local communities	Number of articles submitted to journals for review	Number	-	0	0	1	0	1

DI-C19	Technical reports of project studies	Number of technical reports from project studies	Number	-	1	9	2	1	12
DI-D01	Forestry management plan	Hectares of eucalyptus and pine plantations with sustainable management practices	Hectares		0	0	35	0	35
DI-D12	Area of degraded or converted ecosystems that are under active restoration	Reforested area with native species	Hectares	Polylepis, Aliso, Lloque, Kiswara	200	75	75	200	350

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)
Forestry management plan (Thola Pujru community). This technical report is written in Spanish	Technical report	Dennis Alfio Mollinedo Gutierrez	Male	Bolivian	Armonía, Cochabamba	[redacted]
Monitoring Protocol to collect data from reforested areas. This technical report (draft) is written in Spanish	Technical report	Omar Oporto Daza	Male	Bolivian	Armonía, Bolivia	
Protocolo de control de incendios forestales. Reporte escrito en español	Technical report	Gustavo Paredes	Male	Bolivian	Armonia, Bolivia	
Report on drone application for the monitoring of vegetation	Technical report	FAUNAGUA	Female	Bolivian	Armonía, Bolivia	

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)
coverage. Este informe está escrito en inglés y español.						
Report on water retentions on the microscale: El Beneficio Hídrico Potencial como resultado de prácticas de reforestación en la vertiente sur del PN Tunari. Este reporte está escrito en español	Technical report	FAUNAGUA	Female	Bolivian	Armonia, Bolivia	[redacted]
Report of installation and operation of monitoring station. Este reporte está escrito en español.	Technical report	FAUNAGUA	Female	Bolivian	Armonía, Bolivia	
Report on vegetation cover and water discharge. Este reporte está escrito en español	Technical report	FAUNAGUA	Female	Bolivian	Armonía, Bolivia	
Report with monitoring results and short summary on water balance and environmental flow. Este reporte está escrito en español.	Technical report	FAUNAGUA	Female	Bolivian	Armonía, Bolivia	

- **Checklist for submission**

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	x
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	x
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.	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.	x
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 16)?	x
Have you involved your partners in preparation of the report and named the main contributors	x
Have you completed the Project Expenditure table fully?	x
Do not include claim forms or other communications with this report.	