

# INTERNATIONAL TROPICAL TIMBER ORGANIZATION

## ITTO

### PRE-PROJECT PROPOSAL

|                   |  |
|-------------------|--|
| TITLE             | DEVELOPMENT OF A PROJECT FOR THE REVALUATION, RESTORATION AND SUSTAINABLE DEVELOPMENT OF THE QUINA ( <i>Cinchona</i> spp.) TREE AND ASSOCIATED NATIVE SPECIES OF THE WESTERN MONTANE FORESTS OF PERU |
| SERIAL NUMBER     | PPD 197/20 Rev.1 (F)   |
| COMMITTEE         | REFORESTATION AND FOREST MANAGEMENT  |
| SUBMITTED BY      | GOVERNMENT OF PERU   |
| ORIGINAL LANGUAGE | SPANISH  |

#### SUMMARY

The “quina” or “casarilla” tree belongs to the *Cinchona* genus, *Rubiaceae* family; it is the tree that represents Peru's plant richness, and as such it appears on the national coat of arms. It is an important part of the country's history and is catalogued as one of montane forests' major contributors to the global pharmacopeia. Its medicinal qualities, derived from chemical compounds including alkaloids, flavonoids and terpenes in its bark, leaves, fruit (pods) and flowers, have supplied the most effective medicine against malaria and other infectious viral and bacterial disorders for over 400 years. Still today, it provides inputs for global health research such as its potential to fight the Coronavirus (COVID-19) pandemic. Not only does it offer benefits from its direct use, but it is also part of the montane forests in Andean-Amazon ecosystems that provide ecosystem goods and services, such as vital water resources for human consumption, agriculture and industrial activity in rural and urban settlements in lower micro-watershed areas.

To date, historic overexploitation for the global pharmacopeia, as well as deforestation and degradation in rural areas, have had a negative impact on Quina tree natural stands; as a result, there is a need to develop a participatory strategy to revert this situation, because of its historical, cultural, medicinal, and timber significance as well as its importance as a component of fragile ecosystems that ensure the subsistence of rural and urban communities, beneficiaries of the conservation of montane forests, which is the overall objective of the project.

Furthermore, the specific objective of the pre-project is to develop a project proposal for the revaluation, restoration and sustainable development of the Quina (*Cinchona* spp) tree and associated native species of the western montane forests of Peru; project beneficiaries will include at least 450 families, and management will cover 5,500 hectares in total, including natural forest stands and forest plantations.

EXECUTING AGENCY                      SOS PAN PERU - Development Non-Governmental Organization

#### COOPERATING GOVERNMENTS

DURATION                                      6 MONTHS

APPROXIMATE STARTING DATE            UPON APPROVAL

| BUDGET AND PROPOSED SOURCE OF FINANCE | Source national    | Contribution in US\$ |
|---------------------------------------|--------------------|----------------------|
|                                       | <b>ITTO</b>        | <b>71,456</b>        |
|                                       | Government of Peru | 23,976               |
|                                       | <b>TOTAL</b>       | <b>95,432</b>        |



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## LIST OF ACRONYMS

|         |   |
|---------|---|
| DNGO    | Development Non-Governmental Organisation   |
| INIA    | Instituto Nacional de Investigación Agraria ( <i>National Agricultural Innovation Institute</i> ) |
| ITTO    | International Tropical Timber Organization  |
| MINAGRI | Ministerio de Agricultura y Riego ( <i>Ministry of Agriculture and Irrigation</i> )               |
| MINAM   | Ministerio del Ambiente ( <i>Ministry of the Environment</i> )                                    |
| NTPF    | Non-Timber Forest Products  |
| SERFOR  | Servicio Nacional Forestal y de Fauna Silvestre ( <i>National Forest and Wildlife Service</i> )   |
| SFM     | Sustainable Forest Management   |

## **PART 1. PRE-PROJECT CONTEXT**

### **1.1 Origin and justification**

Peru's natural forests cover 72,083,263 hectares (56.09% of the country's land area). Of these, 220,173 hectares (0.17%) are Andean forests and 90,002 hectares (0.07%) of these are identified as Western Andean Montane Forests situated on the north coast of Peru.

In Peru, western montane forests cover a strip extending over the regions of Lambayeque, Cajamarca, Amazonas, San Martín, Huánuco, Junín, Pasco, Cusco, Ayacucho and Puno, which are home to endemic Andean-Amazon fauna and flora species including the quina tree (*Cinchona* spp.), recognized as the emblematic Peruvian tree that represents the richness of the country's flora; and at the global level, it is acknowledged as a saviour of humanity thanks to its medicinal properties (alkaloids, phenols, etc.) used to fight malaria. However, this emblematic species has been degraded by agricultural encroachment, illegal logging, fires, and a lack of knowledge of ecological processes and silviculture, all driving factors in the degradation and deforestation of the country (143,425 hectares in 2017).

While some regulations have been passed, enforcement has not been successful. This includes Ministerial Resolution N. 0258-99-AG, that bans, for an indefinite period of time, the removal of specimens of the *Cinchona* genus species from natural forests, and provides that rural development projects that include reforestation activities in the natural range of the species of this genus shall incorporate them in their reforestation programmes with the purpose of restoring their forest stands and ensuring their survival. Furthermore, Supreme Decree N. 043-2006-AG approving the Classification of Threatened Wild Flora Species, considers the *Cinchona calisaya* Wedd (cascarilla) species to be Vulnerable (VU). Similarly, Ministerial Resolution N. 505-2016-MINAGRI, that approves the classification of wild flora species classed as threatened, includes *Cinchona pubescens* Vahl and *C. calisaya* Wedd only among the 'Near Threatened' species. Altogether, these regulations only attempt to rectify the consequences of hundreds of years of neglect, but none truly promotes and encourages, through public and private investment, efforts to restore and sustainably conserve these species. Although in the past they were over-logged and there was no action taken, current technological development and greater willingness to ensure the conservation of resources make it possible to re-launch actions for this purpose.

Significantly, there is an important SERFOR policy action, whose adoption is currently in progress: the "National Quina (*Cinchona* spp.) Conservation Strategy by 2028 and its Action Plan 2019-2023", whose objective is to conserve and restore quina (*Cinchona* spp.) stands in the wild, restoring the tree's historical, cultural and economic significance in Peru. This proposal will promote restoration, reforestation and sustainable management projects for *Cinchona* genus species. In this regard, this pre-project is warranted by the need to implement these programmes and projects for restoration and sustainable management at every level. Finally, two pivotal moments are considered relevant – firstly, in 2021 Peru will celebrate its bicentenary, which will offer an unparalleled opportunity to restore the value of knowledge on this precious resource at every level, especially with other sectors including Education and Culture; furthermore, the Health sector will be able to restore the strategic medicinal importance of this resource after it was confirmed that substances derived from its original compounds (quinine alkaloid) offer potential treatments for the current COVID-19 pandemic, thus complementing its already familiar contribution to human health in controlling malaria. It is therefore relevant to propose the development of a participatory pilot forest management model to further conservation as well as corresponding sustainable harvesting models.

### **1.2 Relevance**

#### **1.2.1 Conformity with ITTO's objectives and priorities**

This pre-project is consistent with ITTO's overall objective "to enhance and diversify international trade in legally harvested tropical timber from sustainably managed forests". The proposal is also fully aligned with the objectives and priorities of the International Tropical Timber Agreement (ITTA, 2006) that entered into force in December 2011, and with the objectives and strategies of the ITTO Strategic Action Plan (2013-2018) that "elaborates a clear strategy and guidance. This guidance is made operational through Biennial Work Programs, Thematic Programs and projects".

The pre-project is in compliance with objectives (c), (f), (j), (q) and (r) of the International Tropical Timber Agreement (ITTA 2006) as follows: Objective (c) *Contributing to sustainable development and to poverty alleviation*: this will be achieved through sustainable management of resources coming from natural forests of Quina and its associated species, with this action providing tangible income for the benefit of rural communities involved. Objective (f) *Promoting and supporting research and development with a view to improving forest management and efficiency of wood utilization and the competitiveness of wood products relative to other materials, as well as increasing the capacity to conserve and enhance other forest values in timber producing tropical forests*: this will generate knowledge through research of the Quina tree fostered by the Executing Agency, and which includes not only direct benefits but also environmental services: Quina forest dwellers are part of the Andean-Amazon Montane ecosystems, a strategic zone that brings benefits to both rural and urban communities in mid- and lower valley areas. Objective (j) *Encouraging members to support and develop tropical timber reforestation, as well as rehabilitation and restoration of degraded forest land, with due regard for the interests of local communities dependent on forest resources*: in the last decade, Quina montane forests were decimated because of their phyto-pharmaceutical powers as well as through deforestation resulting from agricultural encroachment. This left only a few natural stands that require restoration and implementation of significant new plantations, for the benefit of rural communities involved in the project. Objective (q) *Promoting better understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests*: this is one of the closest objectives to those of the pre-project, inasmuch as the goods and services derived from the sustainable management of montane Quina forests provide bark, leaves and fruit from which the global pharmacopeia obtains its products. They also provide ecosystem services that benefit rural and urban communities, especially as a water regulator. Finally, it is consistent with Objective (r) that provides the recognition of the role of local communities in achieving sustainable forest management: it is precisely through participatory activities that these communities will sustainably manage forests and plantations to be established with *Cinchona* genus species and associated species.

Furthermore, this proposal is consistent with the following priorities and expected outcomes described in the Strategic Action Plan of the International Tropical Timber Organisation, ITTO (2013-2018), which is still current:

- Strategic priority 2: Increase the contribution of tropical forests to national and local economies, including through international trade, and its associated expected outcomes: The pre-project will collect and process information for the project proposal, to highlight the value of currently existing resources, thus generating income, local jobs, potential access to domestic and international markets for organised community enterprises, improved livelihood and employment for local and indigenous communities; diversify traditional forest logging products, NTFPs in particular, in compliance with the regulatory forest framework and ensuring forest product legality, traceability and sustainability.
- Strategic priority 3: Enhance the conservation and sustainable use of biodiversity in tropical timber producing forests, and its expected outcomes. SFM will be proposed as the main tool to ensure conservation and sustainable use of biodiversity in these tropical montane forests, and that any recommended and implemented business practice will guarantee the sustainability of tropical montane forest biodiversity.
- Strategic priority 4. Reduce tropical deforestation and forest degradation and enhance the provision of environmental services, and its expected outcomes. The proposal will include strategies and mechanisms to enable the reduction of the causes of deforestation in the project target area; furthermore, it will adopt mechanisms to adapt to climate change, which help revert these trends, such as promoting and implementing restoration and reforestation in neighbouring areas in order to improve tangible incomes from environmental services, for the communities in the mid-and lower watershed areas. Significantly, the main objective of developing the project that will be the outcome of this pre-project is the sustainable management of one of the NTFPs that has been most beneficial to humanity. This is the use of bark, flowers and leaves from the *Cinchona* genus species generally called the Quina tree.

- Strategic priority 6. Build and develop human resource capacity to implement SFM and increase trade in forest goods and services from sustainably managed forests, and its expected outcomes. The proposal will establish a group of highly qualified professionals specialising in the entire value chain of the Quina tree, from management of the germplasm source to the negotiation on certified, fair markets for forest products; the benefits will be felt not only in this area but they will extend to every region in the country where similar conditions may be found, to promote SFM in tropical montane forests where Quina trees and/or associated species may be found.

### 1.2.2 Relevance to the submitting country's policies

This proposal is consistent with the following policy and regulatory frameworks in our country:

- National Environmental Policy, approved by Supreme Decree No. 012-2009-MINAM, which highlights the importance of forests in Peru, and their role in climate change mitigation and adaptation. Its Policy Area on “Conservation and sustainable use of natural resources and biological diversity” establishes the need to promote sustainable and integrated forest management; prevent the reduction and degradation of forests and their resources; conserve and extend forest cover (with its biodiversity and environmental services) and ecosystem production capacity; prioritise the integrated use of forest resources; promote reforestation; enhance control and monitoring with community and civil society involvement; and prevent deforestation of natural forests.
- The National Forest and Wildlife Policy (Supreme Decree No. 009-2013-MINAGRI) is aimed at contributing to the sustainable development of the country, through the appropriate management of the Nation's Forest and Wildlife Heritage, to ensure its sustainable use, conservation, protection and expansion, to ensure the provision of goods and services from forest ecosystems, other wild vegetation and wildlife ecosystems in consonance with the Nation's social, cultural, economic and environmental interests.
- Furthermore, the National Agrarian Policy, adopted by Supreme Decree No. 002-2016-MINAGRI, provides a strategic guideline in its Policy Area 2 <sup>1</sup> to “Promote the sustainable harvesting, conservation and enhancement of forest and wildlife resources through agroforestry, forest plantation development, sylvo-pastoral systems and other”.
- The Forest and Wildlife Law (Act No. 29763) provides the legal framework to regulate, promote and supervise forest and wildlife activities in support of conservation, protection, expansion and sustainable use of the country's forest and wildlife heritage, by associating their management with the maintenance and enhancement of forest ecosystem services and other wild vegetation ecosystems, in consonance with social, economic and environmental interests; as well as to boost forest development, enhance forest competitiveness, generate and expand forest and wildlife resources and their value to society. This Law provides for the harvesting and trade of wild flora as long as these activities are carried out in areas under Sustainable Forest Management, which are governed by the Regulations of the said Law; the Forest Management Regulations (Supreme Decree No. 018-2015-MINAGRI), and the Regulations for Forest and Wildlife Management in native and rural communities (Supreme Decree No. 021-2015-MINAGRI).
- A specific instrument, Law No. 28477, declares the native crop “cascarilla or quina” (*Cinchona officinalis*) as part of the national natural heritage, together with other crops, native animals and wild species. Furthermore, it assigns to the Ministry of Agriculture (now MINAGRI), in coordination with regional and local governments and other public and private bodies, responsibility for recording, disseminating, conserving and advertising genetic material, as well as encouraging the production, processing, marketing, and internal and external consumption of the species detailed in the legislation.
- Executive Resolution No. 083-2018-MINAGRI-SERFOR-DE adopts the “Guidelines for the restoration of forest ecosystems and other wild vegetation ecosystems”, whose purpose is to revert the degradation of ecosystems in the Peruvian coastal, highlands and rainforest ecoregions, with an emphasis on the restoration of native forests. This proposal is consistent with these guidelines.

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<sup>1</sup> Policy Area 2: Forest and Wildlife Development.

- Finally, a national policy tool, the NATIONAL STRATEGY FOR THE CONSERVATION OF THE QUINA TREE (*Cinchona* spp.) BY 2028 AND ITS ACTION PLAN 2019 – 2023, whose approval by the authorities of the National Forest and Wildlife Service (*Servicio Nacional Forestal y de Fauna Silvestre* – SERFOR) is pending. The authors of this pre-project proposal were actively involved in drafting the Strategy, whose main objective is the management of biodiversity and conservation of "quina" tree stands in the country, through their valuation, conservation, habitat restoration and sustainable use with the participation of various stakeholders within the framework of the celebration of the bicentenary of Peru's independence.

This national policy and legal framework highlights the importance of implementing a pre-project aimed at developing a project for the conservation and sustainable use of one of the most valuable forest resources in our country.

## **PART 2. PRE-PROJECT JUSTIFICATION**

### **2.1 Objectives**

#### **2.1.1 Development objective**

To help participatory development of an integrated and inclusive process to revalue, restore, sustainably manage and enhance the *Cinchona* genus to promote the sustainable use of western montane forest goods and services in Peru, for positive impact on the environment and improved standards of living for rural communities involved, under a sustainable development model that can overcome current limitations on resource management caused by climate change and new globalised economy integration.

Achievement of this objective will help incorporate the benefits provided by forests into the rural economy in the Departments of Lambayeque, Cajamarca and Amazonas, where remaining forests contain many *Cinchona* genus species that belong to the tropical montane forest zone; thus forestry will become a source of direct income and will contribute to the conservation of the ecosystem through additional indirect benefits including water regulation, carbon sequestration, biodiversity conservation and other environmental services, for the benefit of the communities living in the mid and lower watersheds where these forests are found. A tangible example of the *Cinchona* genus benefits is the fact that historically these resources were decimated over the past few centuries, in a bid to extract quinine (an alkaloid) to cure malaria; subsequently this was replaced by synthetic products designed on the basis of the original biochemical properties identified in quinine. As life paradoxes would have it, with the COVID-19 pandemic, researchers have turned to primeval natural products since to date, there is a lack of knowledge on the potential to cure this or other types of diseases afflicting public health. Should it become a potential source, because of the wide diversity of related species and faced with scenarios of intense demand from this or other industries (such as the production of tonic water from natural quinine), supply must be ensured from sound SFM sources, and this is why achieving this objective is such an important endeavour.

#### **2.1.2 Specific Objective**

To identify, collect, process and analyse information on the *Cinchona* genus and associated species found in tropical montane forests, as well as their socioeconomic environment, with a view to developing a full project proposal for the revaluation, restoration and sustainable development of the Quina tree and associated native species, with social, economic and environmental impact in Peru.

The project is designed to enhance the living standards of approximately 450 rural families as direct beneficiaries of natural forests and forest plantations in an area covering approximately 5,500 hectares, considering that direct and indirect forest products are in growing demand from the environmental goods and services market.

### **2.2 Preliminary problem identification**

History is an important element to understand the past and have a glimpse at the future; this is not just a phrase, it is a lesson that needs to be learnt about the emblematic tree of Peru, as we approach the commemoration of the bicentenary of Peru's independence (2021).

The quina tree (*Cinchona* spp.) is considered to be one of the most significant medicinal plants in the world; it is catalogued as one of the main contributions from Andean forests to global pharmacopeia as a result of its multiple medicinal values. It is thought to be the plant that has saved the largest number of lives, appropriately called the "tree of life", thanks to its febrifuge properties and effectiveness in fighting viral and infectious diseases.



Unfortunately, because of its medicinal properties as an antipyretic tonic, quina has been irrationally over-logged (more than 25,000 trees/year), thus going beyond the limits of natural regeneration. Similarly, foreign trade since colonial times, which increased during the Republican era, encouraged its logging; it had become a source of wealth as well as political power for many. Neither the Government nor merchants thought of propagating or managing quina trees. On the contrary, a diversity of additional conflicts arose because of agricultural encroachment into montane forests, the habitat of the quina tree and associated native species.

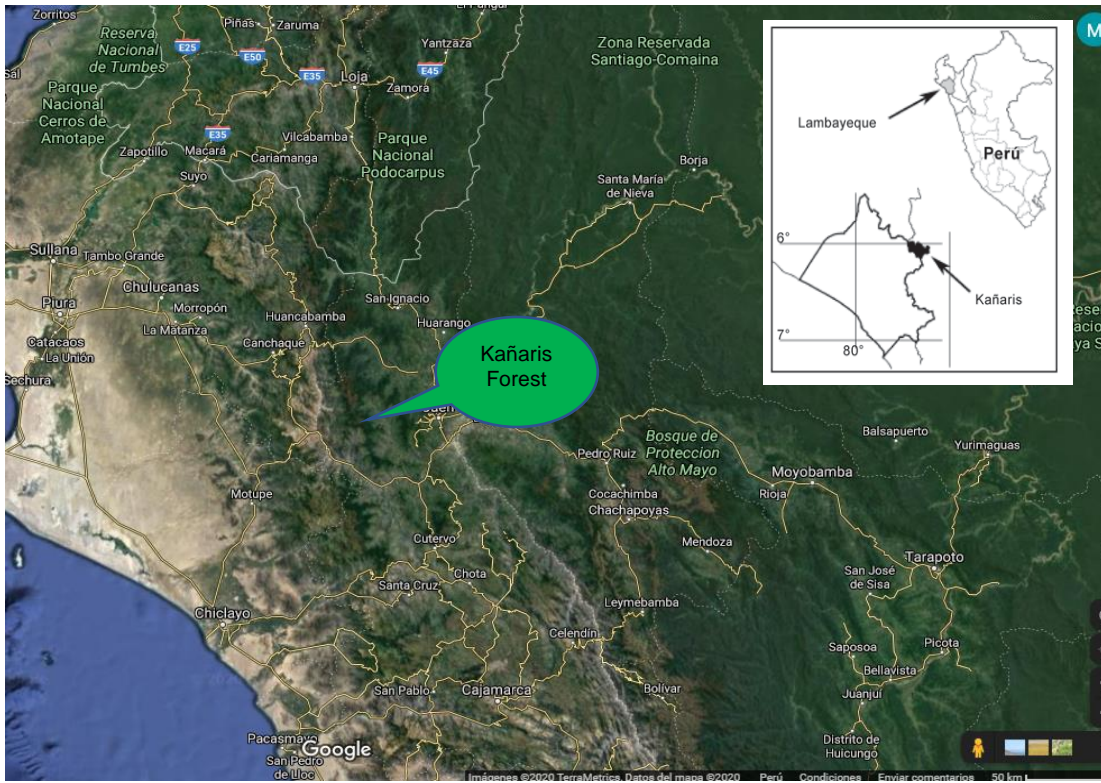
Currently there is evidence of high rates of deforestation and general degradation in the country, which affects montane forests in particular because of land use changes, forest fires, illegal logging, arrival of exotic species (monoculture of pines and eucalypts); quina production is scarce or non-existent both on a small and even less on a medium scale, because of the lack of basic and applied research to generate knowledge on the biology, silvicultural management and ecological processes of this ecosystem, as well as structural factors such as poverty and inequality, all of which are compounded by the effects of climate change.

Peru is not immune to the devastation of quina trees, “the tree on the national coat of arms, a symbol of the plant wealth of Peru”, as stated by Marc Dourojeanni, recognised international forest and environmental specialist, in his book: “Si el árbol de la quina hablara” (*If the quina tree could talk*) (1988). Thirty-two years have passed since the publication of this book and to date (2020) the treatment of this emblematic Peruvian tree has not significantly improved; on the contrary, we are still neglecting it and abusing it, reflecting the general indifference of the population and authorities of many institutions, translated into their scant presence or total absence from government development projects and nurseries, and into the very limited basic and applied research carried out to date.

This context requires strategies, activities and actions both *in situ* and *ex situ*, for the conservation, restoration, management and sustainable use and valuation of Non-Timber Forest Products (NTFPs), based on a holistic ecosystem approach conducive to enhanced living standards for the population as well as healthy, viable and functioning ecosystems in the long term.

The pre-established area of intervention covers the regions of Lambayeque, Cajamarca and Amazonas. However, prior research carried out by the authors of the proposal has shown that there is greater goodwill towards the implementation of this project in the District of Kañaris, Province of Ferreñafe, in the Lambayeque Region, on the western slope of the Andes. Preliminary reports for this zone have recorded forest relicts in close to 13,800 hectares, with high phytogenic, economic and landscape potential. This forest, known as Upaypíteq, shows four well demarcated bioclimatic strata: df-LTM, mf-LTM, wf-LTM and jalca; bioclimatic strata appear in continuous succession with their respective, characteristic species. The Upaypíteq forest is a sample of the most representative formations of cloud forests; and it is located in the western Andes range horst, on the Amazon side. As a result of its geographic position it has significant impact on the sub-watersheds of the main rivers that provide water to the communities in the mid and lower watersheds on the Pacific Ocean side. Figure 1 shows the approximate location of this forest relict where *Cinchona* genus species have been identified in significant numbers.

Fig. 1. Location of the Western Montane Forest relict with significant numbers of Quina trees -  
Kañaris Forest, Lambayeque Region, Peru.



## PART 3. PRE-PROJECT INTERVENTIONS

### 3.1 Outputs

Output 1: The baseline of the project has been completed, with technical, biophysical and socioeconomic information collected. Document generated: Project baseline.

Output 2: A community forest development strategy has been designed for Peru's western montane forests. Document generated: Community Forest Development Strategy.

Output 3: A full project proposal has been designed, in line with ITTO objectives and goals, for community forest development leading to improved living standards for direct beneficiaries through the revaluation, restoration and sustainable forest management of the quina (*Cinchona* spp.) tree and associated native species of the western montane forests of Peru.

### 3.2 Activities, inputs and unit cost

| Activities   | Inputs  | Total costs        |
|--|---|--------------------|
| Output 1: The baseline of the project has been completed, with technical, biophysical and socioeconomic information collected. Document generated: Project baseline.   |   |                    |
| 1.1. Identification of the biophysical, social and economic characteristics of the project target area and interviews with community leaders and authorities.  | Project Coordinator, Technical Assistant, <b>Forest Management and Biobusiness (SFM/BIO) Specialist</b> , meetings with beneficiaries, workshop, office supplies, field visits (DSA and fares), miscellaneous (vehicle rental)  | <b>US\$ 10,275</b> |
| 1.2. Mapping of the socioeconomic and environmental context of the Region.   | GIS consultant, Technical Assistant, DSA, fares, office supplies and miscellaneous  | <b>US\$ 7,850</b>  |
| 1.3. Compilation and processing of information on the <i>Cinchona</i> genus, including distribution in the country, taxonomy, reproduction, chemical, physical and mechanical properties of tree components, and traditional uses, through meetings and interviews with specialists  | Project Coordinator, Technical Assistant, meetings and interviews with specialists in taxonomy, timber, chemical processes, technical workshop, office supplies, <b>national travel costs (DSA and fares) and miscellaneous</b> | <b>US\$ 9,075</b>  |
| 1.4. Development of project baseline   | Project Coordinator, Technical assistant, <b>SFM/BIO Specialist</b> and GIS and Rural Development Specialist  | <b>US\$ 5,750</b>  |
| Output 2: A community forest development strategy has been designed for Peru's western montane forests. Document generated: Community Forest Development Strategy  |   |                    |
| 2.1. Identification and review of production alternatives for montane forests considering different scenarios by type of product (goods and services)  | Project Coordinator, Technical Assistant, <b>SFM/BIO Specialist</b> , office supplies, travel expenses (DSA and fares) and miscellaneous  | <b>US\$ 5,275</b>  |
| 2.2. Identification of markets and value chains for the goods and services supplied  | Project Coordinator, Technical Assistant, <b>SFM/BIO Specialist</b> , office supplies, travel expenses (DSA and fares) and miscellaneous  | <b>US\$ 5,275</b>  |
| 2.3. Drafting of Community Forest Development Strategy document  | Project Coordinator, Technical Assistant, <b>SFM/BIO Specialist</b> , office supplies   | <b>US\$ 7,400</b>  |
| Output 3: A full project proposal has been designed, in line with ITTO objectives and goals, for community forest development leading to improved living standards for direct beneficiaries through the revaluation, restoration and sustainable forest management of the quina ( <i>Cinchona</i> spp.) tree and associated native species of the western montane forests of Peru. |   |                    |
| 3.1. Preparation of full project proposal (First draft)  | Project Coordinator, Technical Assistant, office supplies and miscellaneous.  | <b>US\$ 4,325</b>  |
| 3.2. Consultation and validation workshop with stakeholders and other relevant individuals / institutions  | Project Coordinator, Technical Assistant, <b>workshop</b> , office supplies, travel expenses (DSA and fares) and miscellaneous  | <b>US\$ 10,500</b> |
| 3.3. Final drafting of full project proposal based on ITTO guidelines  | Project Coordinator, Technical Assistant, office supplies and miscellaneous   | <b>US\$ 6,375</b>  |

### 3.3 Approaches and methods

This pre-project will involve a team of highly qualified experts who will provide the technical assistance required to achieve expected outputs.

#### 3.3.1 Strategy to achieve Output 1

This will involve a three-phase approach. The first phase will be office-based and will involve compiling all the information available and accessible to the Technical Team. One (01) workshop will be organised, with the participation of specialists or researchers with expertise in the *Cinchona* genus, and who have produced important information on these plants. **Experiences in quina tree forestry from other countries, especially in Latin America, will be taken into account for the development of a suitable SFM intervention strategy.**

The second phase will consist of field visits to collect up-to-date technical (biophysical) and socioeconomic data relevant to the project. Community leaders and potential beneficiary communities will be interviewed to gain first-hand knowledge of their expectations as an organised social group. The Technical Team (GIS Specialist) supported by local stakeholders, will identify and map the main land uses and their stakeholders; this will include all the necessary maps for a proper analysis among different stakeholders. The signing of a Letter of Understanding and Interest will be coordinated; this will include the implementation of a specific development project with a gender equality central approach. To this end, the organization of women in the communities will be identified, as well as the intervention approach to the development project implementation, in line with ITTO guidelines for project-related gender analysis. Furthermore, in view of the location of the work area, there will be a need for air travel from the City of Lima to Jaén or Chiclayo, in the North of Peru.

Finally, the compiled information will serve to define the project baseline, and it will be recorded in a background document. This will be the basis for monitoring and follow-up of later actions, and a direct input into the formulation of the full project proposal under Output 3.

#### 3.3.2 Strategy to achieve Output 2

**In order to analyse potential scenarios to determine a suitable strategy for recommendation with a view to sustainable forest development, in the first instance with the assistance of the Forest Management and Biobusiness Specialist, potential production alternatives will be identified with due consideration to biophysical characteristics, current land management status, availability of human resources, and organizations supporting production activities, among others. Subsequently, markets and value chains for goods and services will be identified, so that they can be reached from the proposed sustainable forest management area and associated areas involved in the activities targeted by the project. Finally, after a draft Development Strategy has been designed, it will be recorded in a background document to provide guidance for the Development Project proposal.**

#### 3.3.3 Strategy to achieve Output 3

Once the information has been generated, including project baseline and Community Forest Development Strategy, a full project proposal will be designed in line with ITTO objectives and goals. This proposal will be presented at a workshop where it will be validated by project stakeholders, including direct beneficiaries (local communities), authorities and/or players with an interest in the implementation of this Development Project. Finally, the Project Proposal will be completed and submitted as the main outcome of the pre-project to be reviewed by ITTO's Expert Panel for approval and financing.

### 3.4 Work Plan

| Outputs/Activities  | Responsible party   | Schedule in months |   |   |   |   |   |
|---|---|--------------------|---|---|---|---|---|
|   |   | 1                  | 2 | 3 | 4 | 5 | 6 |
| <b>OUTPUT 1.</b>  |   |                    |   |   |   |   |   |
| <b>Activities:</b>  |   |                    |   |   |   |   |   |
| 1.1. Identification of the biophysical, social and economic characteristics of the project target area and interviews with community leaders and authorities.   | Project Coordinator + <b><u>SFM/BIO Specialist</u></b>                                      |                    |   |   |   |   |   |
| 1.2. Mapping of the socioeconomic and environmental context of the Region.  | Project Coordinator + GIS Specialist  |                    |   |   |   |   |   |
| 1.3. Compilation and processing of information on the <i>Cinchona</i> genus, including distribution in the country, taxonomy, reproduction, chemical, physical and mechanical properties of tree components, and traditional uses, through meetings and interviews with specialists | Project Coordinator+ Technical Assistant  |                    |   |   |   |   |   |
| 1.4. Development of project baseline  | Project Coordinator +Technical Assistant+ <b><u>SFM/BIO Specialist</u></b> + GIS Specialist |                    |   |   |   |   |   |
| <b>OUTPUT 2</b>   |   |                    |   |   |   |   |   |
| <b>Activities:</b>  |   |                    |   |   |   |   |   |
| 2.1. Identification and review of production alternatives for montane forests considering different scenarios by type of product (goods and services)   | Project Coordinator + <b><u>SFM/BIO Specialist</u></b>                                      |                    |   |   |   |   |   |
| 2.2. Identification of markets and value chains for the goods and services supplied   | Project Coordinator + <b><u>SFM/BIO Specialist</u></b>                                      |                    |   |   |   |   |   |
| 2.3. Drafting of Community Forest Development Strategy document   | Project Coordinator + <b><u>SFM/BIO Specialists</u></b>                                     |                    |   |   |   |   |   |
| <b>OUTPUT 3</b>   |   |                    |   |   |   |   |   |
| <b>Activities:</b>  |   |                    |   |   |   |   |   |
| 3.1. Preparation of full project proposal (First draft)   | Project Coordinator + Technical Assistant   |                    |   |   |   |   |   |
| 3.2. Consultation and validation workshop with stakeholders and other relevant individuals / institutions   | <b><u>Project Coordinator+ Technical Assistant</u></b>                                      |                    |   |   |   |   |   |
| 3.3. Final drafting of full project proposal based on ITTO guidelines   | Project Coordinator + Technical Assistant   |                    |   |   |   |   |   |

### 3.5 Budget

#### 3.5.1 Master Budget

| Outputs / Activities | Description  | Budget Component | Unit        | Quantity (6 months) | Unit cost (US\$) | ITTO (US\$) | EA (US\$) |
|----------------------|--|------------------|-------------|---------------------|------------------|-------------|-----------|
| <b>Output 1</b>      | <b>Technical, biophysical and socioeconomic information has been collected as required to develop a baseline and to design a community forest development strategy for Peru's western montane forests.</b>   |                  |             |                     |                  |             |           |
| Activity 1.1.        | Identification of the biophysical, social and economic characteristics of the project target area and interviews with community leaders and authorities.   |                  |             |                     |                  |             |           |
|                      | National Director  | 10               | month       | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month       | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month       | 0.5                 | 800              | 400         |           |
|                      | Forest Management and Biobusiness Specialist   | 10               | month       | 0.5                 | 2,250            | 1,125       |           |
|                      | 01 Regional workshop   | 10               | workshop    | 1                   | 4,000            | 4,000       |           |
|                      | DSA for project personnel  | 30               | DSA         | 5                   | 75               | 375         |           |
|                      | DSA for invited personnel / beneficiaries  | 30               | DSA         | 15                  | 45               | 675         |           |
|                      | Fares for Project personnel  | 30               | Fares       | 25                  | 15               | 375         |           |
|                      | Fares for invited personnel/beneficiaries  | 30               | Fares       | 25                  | 15               |             | 375       |
|                      | Office materials/supplies per consumption module   | 50               | Package     | 2                   | 150              | 300         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit        | 10                  | 50               | 500         |           |
| Activity 1.2.        | Mapping of the socioeconomic and environmental context of the Region.  |                  |             |                     |                  |             |           |
|                      | National Director  | 10               | month       | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month       | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month       | 0.5                 | 800              | 400         |           |
|                      | GIS / Rural Development Specialist   | 10               | month       | 1.5                 | 2,000            | 3,000       |           |
|                      | DSA for project personnel  | 30               | DSA         | 5                   | 75               | 375         |           |
|                      | DSA for invited personnel / beneficiaries  | 30               | DSA         | 15                  | 45               | 675         |           |
|                      | Fares for Project personnel  | 30               | Fares       | 5                   | 15               | 75          |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares       | 5                   | 15               |             | 75        |
|                      | Office materials/supplies per consumption module   | 50               | Package     | 4                   | 150              | 600         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit        | 10                  | 50               | 500         |           |
| Activity 1.3.        | Compilation and processing of information on the <i>Cinchona</i> genus, including distribution in the country, taxonomy, reproduction, chemical, physical and mechanical properties of tree components, and traditional uses, through meetings and interviews with specialists |                  |             |                     |                  |             |           |
|                      | National Director  | 10               | month       | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month       | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month       | 0.5                 | 800              | 400         |           |
|                      | 01 Regional workshop   | 10               | Workshop    | 1                   | 4,000            | 4,000       |           |
|                      | DSA for project personnel  | 30               | DSA         | 5                   | 75               | 375         |           |
|                      | DSA for invited personnel / beneficiaries  | 30               | DSA         | 20                  | 45               | 900         |           |
|                      | <b>DSA and international travel costs for project personnel</b>  | -                | <b>Unit</b> | -                   | <b>0</b>         | <b>0</b>    |           |
|                      | Fares for Project personnel  | 30               | Fares       | 20                  | 15               | 300         |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares       | 20                  | 15               |             | 300       |
|                      | Office materials/supplies per consumption module   | 50               | Package     | 1                   | 150              | 150         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit        | 10                  | 50               | 500         |           |

| Outputs / Activities | Description  | Budget Component | Unit    | Quantity (6 months) | Unit cost (US\$) | ITTO (US\$) | EA (US\$) |
|----------------------|--|------------------|---------|---------------------|------------------|-------------|-----------|
| <b>Activity 1.4.</b> | <b>1.4. Development of project baseline</b>  |                  |         |                     |                  |             |           |
|                      | National Director  | 10               | month   | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month   | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month   | 0.5                 | 800              | 400         |           |
|                      | Forest Management and Biobusiness Specialist   | 10               | month   | 0.5                 | 2,250            | 1,125       |           |
|                      | GIS / Rural Development Specialist   | 10               | month   | 0.5                 | 2,000            | 1,000       |           |
|                      | DSA for project personnel  | 30               | DSA     | 5                   | 75               | 375         |           |
|                      | Fares for Project personnel  | 30               | Fares   | 10                  | 15               | 150         |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares   | 10                  | 15               |             | 150       |
|                      | Office materials/supplies  | 50               | Package | 1                   | 150              | 150         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit    | 5                   | 50               | 250         |           |
| <b>Output 2:</b>     | <b>A community forest development strategy has been designed for Peru's western montane forests. Document generated: Community Forest Development Strategy</b> |                  |         |                     |                  |             |           |
| <b>Activity 2.1.</b> | <b>Identification and review of production alternatives for montane forests considering different scenarios by type of product (goods and services)</b>        |                  |         |                     |                  |             |           |
|                      | National Director  | 10               | month   | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month   | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month   | 0.5                 | 800              | 400         |           |
|                      | Forest Management and Biobusiness Specialist   | 10               | month   | 0.5                 | 2,250            | 1,125       |           |
|                      | DSA for project personnel  | 29               | DSA     | 5.0                 | 75               | 375         |           |
|                      | DSA for invited personnel / beneficiaries  | 30               | DSA f   | 15                  | 45               | 675         |           |
|                      | Fares for Project personnel  | 30               | Fares   | 5                   | 15               | 75          |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares   | 5                   | 15               |             | 75        |
|                      | Office materials/supplies per consumption module   | 50               | Package | 1                   | 150              | 150         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit    | 5                   | 50               | 250         |           |
| <b>Activity 2.2</b>  | <b>Identification of markets and value chains for the goods and services supplied</b>  |                  |         |                     |                  |             |           |
|                      | National Director  | 10               | month   | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month   | 0.5                 | 2,500            | 1,250       |           |
|                      | Technical assistant  | 10               | month   | 0.5                 | 800              | 400         |           |
|                      | Forest Management and Biobusiness Specialist   | 10               | month   | 0.5                 | 2,250            | 1,125       |           |
|                      | DSA for project personnel  | 30               | DSA     | 5.0                 | 75               | 375         |           |
|                      | DSA for invited personnel / beneficiaries  | 30               | DSA     | 15                  | 45               | 675         |           |
|                      | Fares for Project personnel  | 30               | Fares   | 5                   | 15               | 75          |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares   | 5                   | 15               |             | 75        |
|                      | Office materials/supplies per consumption module   | 50               | Package | 1                   | 150              | 150         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit    | 5                   | 50               | 250         |           |
| <b>Activity 2.3</b>  | <b>Drafting of Community Forest Development Strategy document</b>  |                  |         |                     |                  |             |           |
|                      | National Director  | 10               | month   | 0.5                 | 1,800            |             | 900       |
|                      | Project Coordinator  | 10               | month   | 1.0                 | 2,500            | 2,500       |           |
|                      | Technical assistant  | 10               | month   | 1.0                 | 800              | 800         |           |
|                      | Forest Management and Biobusiness Specialist   | 10               | month   | 1.0                 | 2,250            | 2,250       |           |
|                      | Fares for Project personnel  | 30               | Fares   | 5                   | 15               | 75          |           |
|                      | Fares for invited personnel / beneficiaries  | 30               | Fares   | 5                   | 15               |             | 75        |
|                      | Office materials/supplies per consumption module   | 50               | Package | 4                   | 150              | 600         |           |
|                      | Sundry expenses (fuel, vehicle rental)   | 60               | Unit    | 4                   | 50               | 200         |           |

| Outputs / Activities               | Description  | Budget Component | Unit     | Quantity (6 months) | Unit cost (US\$) | ITTO (US\$)   | EA (US\$)     |
|------------------------------------|--|------------------|----------|---------------------|------------------|---------------|---------------|
| <b>Output 3</b>                    | A full project proposal has been designed, in line with ITTO objectives and goals, for community forest development leading to improved living standards for direct beneficiaries through the revaluation, restoration and sustainable forest management of the quina ( <i>Cinchona</i> spp.) tree and associated native species of the western montane forests of Peru. |                  |          |                     |                  |               |               |
| <b>Activity 3.1</b>                | Preparation of full project proposal (first draft)   |                  |          |                     |                  |               |               |
|                                    | National Director  | 10               | month    | 0.5                 | 1,800            |               | 900           |
|                                    | Project Coordinator  | 10               | month    | 0.5                 | 2,500            | 1,250         |               |
|                                    | Technical assistant  | 10               | month    | 1.0                 | 800              | 800           |               |
|                                    | Forest Management and Biobusiness Specialist   | 10               | month    | 0.5                 | 2,250            | 1,125         |               |
|                                    | Office materials/supplies per consumption module   | 50               | Package  | 1                   | 150              | 150           |               |
|                                    | Sundry expenses (fuel, vehicle rental)   | 60               | Unit     | 2                   | 50               | 100           |               |
| <b>Activity 3.2</b>                | Consultation and validation workshop with stakeholders and other relevant individuals / institutions   |                  |          |                     |                  |               |               |
|                                    | National Director  | 10               | month    | 1.0                 | 1,800            |               | 1,800         |
|                                    | Project Coordinator  | 10               | month    | 0.5                 | 2,500            | 1,250         |               |
|                                    | Technical assistant  | 10               | month    | 0.5                 | 800              | 400           |               |
|                                    | Workshop to validate project proposal  | 10               | Workshop | 1.0                 | 4,000            | 4,000         |               |
|                                    | DSA for project personnel  | 30               | DSA      | 10                  | 75               | 750           |               |
|                                    | DSA for invited personnel / beneficiaries  | 30               | DSA      | 20                  | 45               | 900           |               |
|                                    | Fares for Project personnel  | 30               | Fares    | 25                  | 15               | 375           |               |
|                                    | Fares for invited personnel / beneficiaries  | 30               | Fares f  | 25                  | 15               |               | 375           |
|                                    | Office materials/supplies per consumption module   | 50               | Package  | 3                   | 150              | 450           |               |
|                                    | Sundry expenses (fuel, vehicle rental)   | 60               | Unit     | 4                   | 50               | 200           |               |
| <b>Activity 3.3</b>                | Final drafting of full project proposal based on ITTO guidelines   |                  |          |                     |                  |               |               |
|                                    | National Director  | 10               | month    | 1.0                 | 1,800            |               | 1,800         |
|                                    | Project Coordinator  | 10               | month    | 1.0                 | 2,500            | 2,500         |               |
|                                    | Technical assistant  | 10               | month    | 0.5                 | 800              | 400           |               |
|                                    | Forest Management and Biobusiness Specialist   | 10               | month    | 0.5                 | 2,250            | 1,125         |               |
|                                    | Office materials/supplies per consumption module   | 50               | Package  | 2                   | 150              | 300           |               |
|                                    | Sundry expenses (fuel, vehicle rental)   | 60               | Unit     | 5                   | 50               | 250           |               |
| <b>NON-ACTIVITY BASED EXPENSES</b> |  |                  |          |                     |                  |               |               |
|                                    | Premises (rental)  | 40               | month    | 6                   | 400              |               | 2,400         |
|                                    | Computer equipment   | 40               | unit     | 6                   | 400              |               | 2,400         |
|                                    | Utilities  | 50               | fees     | 6                   | 300              |               | 1,800         |
|                                    | Auditing   | 60               | unit     | 1                   | 1,500            |               | 1,500         |
|                                    | Contingencies  | 60               | Unit     | 1                   | 1,800            |               | 1,800         |
|                                    | Executing Agency management costs (8%)   | 70               | overall  | 1                   | 1,776            |               | 1,776         |
|                                    | ITTO programme support costs (12%)   | 80               | overall  | 1                   | 11,656           | 11,656        |               |
|                                    | <b>SUB-TOTAL (USD)</b>   |                  |          |                     |                  | <b>71,456</b> | <b>23,976</b> |



### 3.5.2. Consolidated budget by component

| Budget components |  | TOTAL         | ITTO (US\$)   | EA (US\$)     |
|-------------------|--|---------------|---------------|---------------|
| 10.               | <b>Project personnel</b>                           |               |               |               |
| 11                | National Experts                                   |               |               |               |
|                   | 11.1 National Director                             | 10,800        |               | 10,800        |
|                   | 11.2 Project Coordinator                           | 15,000        | 15,000        |               |
|                   | 11.4 Technical assistant                           | 4,800         | 4,800         |               |
| 12                | Other personnel                                    |               |               |               |
| 13                | National consultants                               |               |               |               |
|                   | 13.1. Forest Management and Biobusiness Specialist | 9,000         | 9,000         |               |
|                   | 13.2 GIS / Rural Development Specialist            | 4,000         | 4,000         |               |
| 15                | Fellowships and Training                           |               |               |               |
|                   | 15.1 Regional meetings and workshops               | 12,000        | 12,000        |               |
| 19                | <b>Component Total</b>                             | <b>55,600</b> | <b>44,800</b> | <b>10,800</b> |
| 20.               | <b>Sub-contracts</b>                               |               |               |               |
| 30.               | <b>Duty travel</b>                                 |               |               |               |
| 31                | DSA  |               |               |               |
|                   | 31.1 National experts/ consultants                 | 3,000         | 3,000         |               |
|                   | 31.2 International consultants                     |               |               |               |
|                   | 31.3 Others  | 4,500         | 4,500         |               |
| 32                | International Travel                               |               |               |               |
| 33                | Local transport costs                              |               |               |               |
|                   | 33.1 National experts /consultants                 | 1,500         | 1,500         |               |
|                   | 33.3 Others  | 1,500         |               | 1,500         |
| 39                | <b>Component Total</b>                             | <b>10,500</b> | <b>9,000</b>  | <b>1,500</b>  |
| 40.               | <b>Capital items</b>                               |               |               |               |
| 41                | Premises (rental)                                  | 2,400         |               | 2,400         |
| 44                | Capital equipment                                  |               |               |               |
|                   | 44.1 Computer equipment                            | 2,400         |               | 2,400         |
| 49                | <b>Component Total</b>                             | <b>4,800</b>  | <b>0</b>      | <b>4,800</b>  |
| 50.               | <b>Consumable Items</b>                            |               |               |               |
| 53                | Utilities  | 1,800         |               | 1,800         |
| 54                | Office materials/supplies                          | 3,000         | 3,000         |               |
| 59                | <b>Component Total</b>                             | <b>4,800</b>  | <b>3,000</b>  | <b>1,800</b>  |
| 60.               | <b>Miscellaneous</b>                               |               |               |               |
| 61                | Sundry expenses                                    | 3,000         | 3,000         |               |
| 62                | Auditing   | 1,500         |               | 1,500         |
| 63                | Contingencies                                      | 1,800         |               | 1,800         |
| 69                | <b>Component Total</b>                             | <b>6,300</b>  | <b>3,000</b>  | <b>3,300</b>  |
| 70.               | <b>Executing Agency Management Costs</b>           |               |               |               |
| 71                | <b>Executing Agency management costs (8%)</b>      | 1,776         |               | 1,776         |
| 79                | <b>Component Total</b>                             | <b>1,776</b>  | <b>0</b>      | <b>1,776</b>  |
|                   | <b>SUB-TOTAL</b>                                   | <b>83,776</b> | <b>59,800</b> | <b>23,976</b> |
| 80.               | <b>Project monitoring and administration</b>       |               |               |               |
| 81                | ITTO monitoring and review                         | 4,000         | 4,000         |               |
|                   | ITTO administration, monitoring and evaluation     |               |               |               |
| 83                | ITTO programme support costs (12%)                 | 7,656         | 7,656         |               |
| 89                | <b>Component Total</b>                             | <b>11,656</b> | <b>11,656</b> |               |
| 100.              | <b>GRAND TOTAL (USD)</b>                           | <b>95,432</b> | <b>71,456</b> | <b>23,976</b> |

### 3.5.3. Pre-project budget by source – ITTO

| Budget components |    |   | Quantity | Unit cost (US\$) | TOTAL (US\$)  |
|-------------------|----|---|----------|------------------|---------------|
| 10.               |    | <b>Project personnel</b>                              |          |                  |               |
|                   | 11 | National Experts                                      |          |                  |               |
|                   |    | 11.2 Project Coordinator                              | 6        | 2,500            | 15,000        |
|                   |    | 11.4 Technical assistant                              | 6        | 800              | 4,800         |
|                   | 12 | Other personnel                                       |          |                  |               |
|                   | 13 | National consultants                                  |          |                  |               |
|                   |    | 13.1. Forest Management and Biobusiness Specialist    | 4        | 2,250            | 9,000         |
|                   |    | 13.2 GIS / Rural Development Specialist               | 2        | 2,000            | 4,000         |
|                   | 15 | Fellowships and Training                              |          |                  |               |
|                   |    | 15.1 Regional meetings and workshops                  | 3        | 4,000            | 12,000        |
|                   | 19 | <b>Component Total</b>                                |          |                  | <b>44,800</b> |
| 20.               |    | <b>Sub-contracts</b>                                  |          |                  |               |
| 30.               |    | <b>Duty travel</b>                                    |          |                  |               |
|                   | 31 | DSA   |          |                  |               |
|                   |    | 31.1 National experts /consultants                    |          | 75               | 3,000         |
|                   |    | 31.3 Others   |          | 45               | 4,500         |
|                   | 32 | International Travel                                  |          |                  |               |
|                   | 33 | Local transport costs                                 |          |                  |               |
|                   |    | 33.1 National experts /consultants                    |          | 15               | 1,500         |
|                   | 39 | <b>Component Total</b>                                |          |                  | <b>9,000</b>  |
| 40.               |    | <b>Capital items</b>                                  |          |                  |               |
|                   | 49 | <b>Component Total</b>                                |          |                  | <b>0</b>      |
| 50.               |    | <b>Consumable Items</b>                               |          |                  |               |
|                   | 54 | Office materials/supplies                             |          | 150              | 3,000         |
|                   | 59 | <b>Component Total</b>                                |          |                  | <b>3,000</b>  |
| 60.               |    | <b>Miscellaneous</b>                                  |          |                  |               |
|                   | 61 | Sundry expenses                                       |          | 50               | 3,000         |
|                   | 69 | <b>Component Total</b>                                |          |                  | <b>3,000</b>  |
|                   |    | <b>SUB-TOTAL</b>                                      |          |                  | <b>59,800</b> |
| 80.               |    | <b>Project monitoring and administration</b>          |          |                  |               |
|                   | 81 | <b>ITTO monitoring and review</b>                     |          |                  | 4,000         |
|                   |    | <b>ITTO administration, monitoring and evaluation</b> |          |                  |               |
|                   | 83 | ITTO programme support costs (12%)                    |          |                  | 7,656         |
|                   | 89 | <b>Component Total</b>                                |          |                  | <b>7,656</b>  |
| 100.              |    | <b>TOTAL – ITTO (USD)</b>                             |          |                  | <b>71,456</b> |

### 3.5.4. Pre-project budget by source - Executing Agency

| Budget components              |    |   | EA<br>(US\$)  |
|--------------------------------|----|---|---------------|
| 10.                            |    | <b>Project personnel</b>                      |               |
|                                | 11 | National Experts                              |               |
|                                |    | 11.1 National Director                        | 10,800        |
|                                | 12 | Other personnel                               |               |
|                                | 19 | <b>Component Total</b>                        | <b>10,800</b> |
| 20.                            |    | <b>Sub-contracts</b>                          |               |
| 30.                            |    | <b>Duty travel</b>                            |               |
|                                | 33 | Local transport costs                         |               |
|                                |    | 33.3 Others                                   | 1,500         |
|                                | 39 | <b>Component Total</b>                        | <b>1,500</b>  |
| 40.                            |    | <b>Capital items</b>                          |               |
|                                | 41 | Premises (rental)                             | 2,400         |
|                                | 44 | Capital equipment                             |               |
|                                |    | 44.1 Computer equipment                       | 2,400         |
|                                | 49 | <b>Component Total</b>                        | <b>4,800</b>  |
| 50.                            |    | <b>Consumable Items</b>                       |               |
|                                | 53 | Utilities                                     | 1,800         |
|                                | 59 | <b>Component Total</b>                        | <b>1,800</b>  |
| 60.                            |    | <b>Miscellaneous</b>                          |               |
|                                | 62 | Auditing                                      | 1,500         |
|                                | 63 | Contingencies                                 | 1,800         |
|                                | 69 | <b>Component Total</b>                        | <b>3,300</b>  |
| 70.                            |    | <b>Executing Agency Management Costs</b>      |               |
|                                | 71 | <b>Executing Agency management costs (8%)</b> | 1,776         |
|                                | 79 | <b>Component Total</b>                        | <b>1,776</b>  |
| <b>SUB-TOTAL – SOS PANPERU</b> |    |   | <b>23,976</b> |

## PART 4. IMPLEMENTATION ARRANGEMENTS

### 4.1 Executing agency and organizational structure

The Executing Agency will be SOS PAN PERU, a development non-governmental organisation holder of RUC No. 20504825613 (*Tax ID Number*) (Annex 1).

The National Project Director will be the representative of SOS PAN PERU and manager of its QUINA PROGRAMME. The National Director will be the counterpart officer and will act as the co-manager of project implementation.

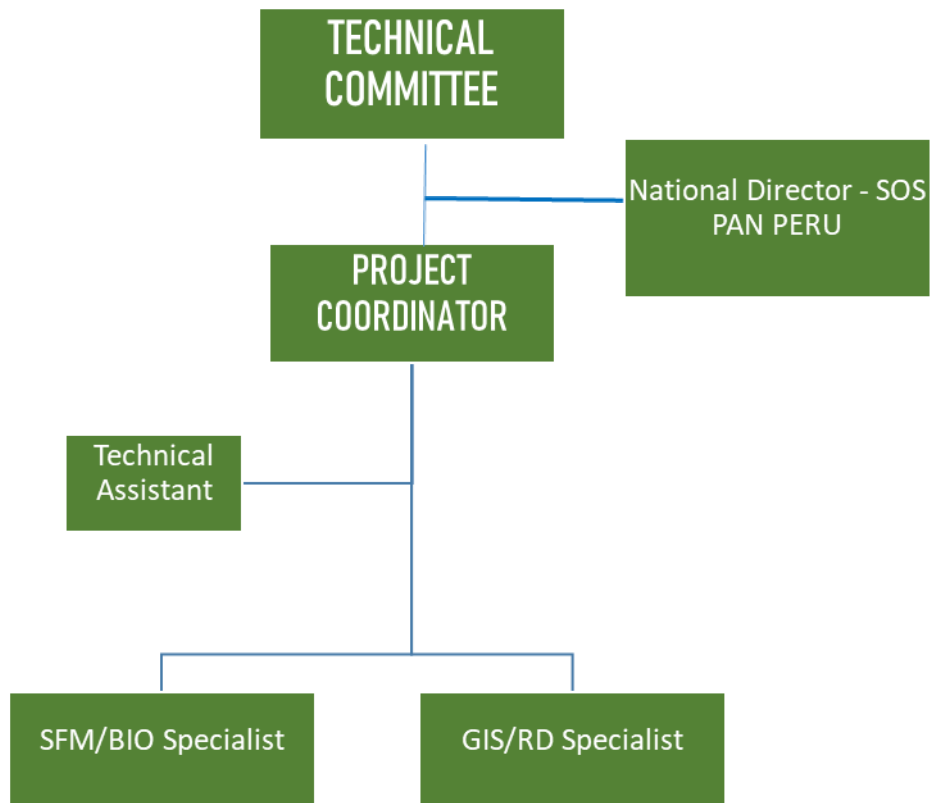
A Project Coordinator will be in charge of project management and will be the technical and administrative officer in charge for the project. This position will be filled with ITTO resources.

This project will be coordinated and monitored by the QUINA Programme management.

The project will be under the guidance and supervision of a **TECHNICAL COMMITTEE** consisting of:

- 01 Representative of Peru's Forest Authority (SERFOR), ITTO's focal point
- 01 ITTO Representative
- 01 Representative of the Regional Government of the project target area;
- 01 Representative of the Executing Agency (SOS PAN PERU). The Project Coordinator will take on the role of Executive Secretary.

### PRE-PROJECT ORGANIZATIONAL CHART



## 4.2 Pre-project management

The National Director (SOS PAN PERU staff) and the Project Coordinator will share responsibility for the administration of project resources.

| Name | Institution       | Position  |
|------|-------------------|---|
|      | DNGO SOS PAN PERU | National Director of the QUINA Programme – SOS PAN PERU |
|      | Pre-project       | Project Coordinator                                     |

## 4.3 Monitoring and reporting

The first report will be submitted at the start of the pre-project, by way of Inception Report; the launch indicator of the pre-project will be the first disbursement of financial resources to the Executing Agency. Three months after project start-up, the first progress report of activities and financial statement will be submitted. At the end of the pre-project, a completion report will be submitted, including the final project proposal to be submitted to ITTO for review by the Expert Panel for final approval and funding by the ITTC Plenary.

## ANNEXES

### ANNEX 1: PROFILE OF THE EXECUTING AGENCY

SOS PAN PERU, holder of RUC No. 20504825613 (*Tax ID Number*), was duly registered with the Non-Governmental Organization Register of the Peruvian Agency for International Cooperation by Director Resolution No. 220-2011/APCI-DOC, with the MISSION to promote applied research, the national identity, and programmes and projects to improve living standards for the communities affected by poverty and extreme poverty. Its major activities include expert technical, social and economic advice and implementation for public and private organisations and institutions, in areas such as production, social aspects, job promotion and employment generation, with the purpose of providing a highly competitive platform for the country's socioeconomic development.

SOS PAN PERU is promoting its ***Cross-sectoral and Inter-institutional Bicentenary Programme: Quina, the Tree of Life***, whose mission is to foster and articulate the generation, development and application of scientific and technological knowledge to ensure the conservation, sustainable use, and competitive development and high value adding of Quina tree products from cloud forest ecosystems, with a view to improving the living standards of rural communities and encouraging private sector involvement in the management of development.

This cross-sectoral programme deals with a variety of sectors including the environment, agriculture, industry, trade, education and health, as well as sciences and technology; it also involves the private sector, including companies and non-governmental organisations.

To date it has coordinated with major institutions such as the Ministry of Defence, regarding the implementation of the project "REVALUATION OF THE QUINA TREE AS AN ELEMENT REPRESENTING FLORA RICHNESS ON THE NATIONAL COAT OF ARMS AND DEFINING THE IDENTITY OF THE PERUVIAN NATION WITHIN THE FRAMEWORK OF THE BICENTENARY AT THE NATIONAL SCALE", whose objectives include to preserve and increase the national availability of Quina in montane forests, and to broaden knowledge of the historical, cultural and medicinal significance of the quina tree for rural and urban communities in the country.

Furthermore, its technical team is working jointly with a team of researchers from National Higher University of San Marcos and the National Engineering University in research studies focused on developing phyto-pharmaceutical drugs, in particular in the context of the COVID-19 pandemic, for which it has submitted a project proposal to be funded by FONDECYT.

SOS PAN PERU staff includes professionals with over 30 years' experience in the forest and biobusiness sectors, with graduate and postgraduate specialisation mainly in Andean and tropical silviculture as well as participatory forest management, in indigenous and rural communities in Peru, and in the management of development programmes and projects and agro-industrial enterprises. Furthermore, several of its members have experience in public office, as regional and national officers; this has enabled them to be actively involved in the formulation of the National Strategy for the Conservation of the *Cinchona* genus, still pending approval by the relevant authority.

Its Vision for the QUINA Programme is that by 2021 the population has gained an awareness of the great significance of this group of species in the *Cinchona* genus, in terms of history, ethno-botany, rural economy, and environmental and medicinal services to humanity.

## ANNEX 2. CONSULTANTS PROVIDED BY THE EXECUTING AGENCY

**ALEJANDRO GOMEZ SILVERA**, Forest Engineer graduated from the National Agrarian University of La Molina, with postgraduate studies in Forest Industries and specialist studies in Germany, Brazil and Bolivia. He has over 30 years' professional experience in restoration, management and sustainable forest use in urban and rural areas: montane or cloud forests (quina trees and associated native species), lowland rainforests, dry forests on a national scale, experience in alternative tropical crops, enrichment of secondary forests, agroforestry systems and reforestation. In the environmental sector, he has provided assistance in the development of environmental management instruments and in the design of forest plans and projects for forest and agroforestry production, and he has extensive knowledge of watershed management and land conservation.

He has been a consultant and worked for a diversity of municipal councils and regional governments and government institutions including the Ministry of Agriculture (MINAGRI), Ministry of the Environment (MINAM), National Agriculture Research Institute (*Instituto Nacional de Investigación Agraria - INIA*), National Forest and Wildlife Service (*Servicio Nacional Forestal y de Fauna Silvestre - SERFOR*), including Non-Governmental and International Cooperation Organisations (FAO, JICA, CARE, ITTO). He is the author of more than 10 publications on montane and cloud forests, with special focus on the silvicultural research of *Cinchona* species, Quina tree, and associated species.

**MIGUEL OCAMPO PIZARRO** is a Forest Engineer graduated from National Agrarian University of La Molina, with specialisation studies in Germany, with a Master's Degree in Sustainable Forest Management and in Agricultural Business. He completed a specialisation course in Project Management under PMI certification (2018), from the National Engineering University (UNI). He has extensive experience in the agricultural sector, as analyst of market information and researcher in agricultural crops and manager of biobusiness for national and international markets. In the forestry field, he is a specialist in the formulation, administration and implementation of management plans for natural forests and forest plantations; he is also a sustainability assessor with consideration of criteria and indicators for Sustainable Forest Management and Forest Certification. He has extensive experience in development projects with rural and indigenous communities, including projects with a participatory approach, self-managed projects and projects with a gender approach, in the Andean and Amazon areas of the country. He has worked in major forest sector institutions in Peru, including the former National Institute for Natural Resources (*Instituto Nacional de Recursos Naturales - INRENA*), and the Peruvian Amazon Research Institute (*Instituto de Investigaciones de la Amazonia Peruana - IIAP*), and he has held executive positions in the regional public service as a Forest Assessor and General Director of the National Forest and Wildlife Service - SERFOR. He has been the Peruvian Government's Representative at the International Tropical Timber Council (ITTC) and Chair of National Commissions of Forest Contract and Concession Assessment. He is the author of several technical and scientific publications.

**EDISON EDUARDO FRIAS CASTILLO** is an Agricultural Engineer graduated from the Pedro Ruiz Gallo University of Lambayeque and has a Master's degree in Environmental Engineering. He is a professional with over 20 years' experience in the development of technical studies and research in the forest and agricultural fields. He is an expert assessor with the Judiciary and specialises in land-use changes for agriculture and livestock production, General Forest Management Plans (GFMP) and Forest Management Statements. He is a specialist in Geographic Information Systems (GIS), and has completed a variety of technical studies to identify land-use changes for agricultural and livestock activities. He has experience in coastal forestry.

**OMAR JAHIR GÓMEZ RENGIFO** is a forester with a bachelor's degree in forest engineering from the National University of Ucayali, and has completed courses in natural resource management and conservation and in ecological restoration. He has worked at SERFOR-Lambayeque and Piura, at the Pataz NGO, to support its local Quina Tree project, at the National Agriculture Innovation Institute, INIA, Vista Florida experimental station in Lambayeque, at the Municipal District Council of Kimbiri, VRAEM, at the Regional Centre for Agricultural Business Innovation (*Centro Regional de Innovación Agroempresarial - CRIA*) at the Ministry of Agriculture, VRAEM, and at *Empresa Industrial Ucayali SAC*, in the City of Pucallpa, Ucayali Region. He has extensive experience in vegetation restoration with Quina trees, development projects with communities of the Peruvian Amazon, forest inventories and land-use management systems at the economic ecologic micro-zoning level, and has formulated projects within the framework of the National System for Public Investment (*Sistema Nacional de Inversión Pública - SNIP*). He is extremely proactive and interested in basic and applied research in tropical montane forests.

## **ANNEX 3: TERMS OF REFERENCE OF PERSONNEL AND CONSULTANTS FUNDED BY ITTO**

### **1. PRE-PROJECT COORDINATOR**

**Main role:** The Pre-project Coordinator holds general responsibility for the successful implementation of the pre-project and its activities as well as for the achievement of planned outcomes. He will report to the Steering Council and ITTO.

**Duration:** 6 months

**Location:** City of Lima. Offices of SOS PAN PERU

**Specific duties:**

- Supervise and coordinate the pre-project to ensure its outcomes are aligned with the schedule and with ITTO project regulations and procedures;
- Prepare budgets and carry out the planning and general monitoring of the project;
- Manage the adequate flow of information to the various project stakeholders;
- Propose the recruitment of specialists to fulfil specific tasks as defined in the pre-project document;
- Prepare progress reports as well as other reports as requested by the Executing Agency;
- Prepare terms of reference for consultants/specialists to be recruited for the pre-project;
- Facilitate the management and work of recruited specialists and supervise the fulfilment of contractual terms;
- Maintain close communications with authorities and representatives in the pre-project target area in order to keep them informed of pre-project actions;
- Maintain communications with Steering Council representatives regarding pre-project progress;
- Monitor expenses, commitments and balance of funds in the project budget and pre-project budget reviews;
- In cooperation with the National Director (of the DNGO), take general responsibility for the management of financial resources to achieve planned objectives, both in terms of quality and timeliness;
- Plan and report on project funds and keep relevant records;
- Ensure that all the information generated by pre-project actions is used to promote Sustainable Forest Management;
- Any other duties as required by the Steering Committee or the Executing Agency (SOS PAN PERU), or directly by the ITTO liaison or representative.

**Qualifications and skills:**

- Professional forest engineer, registered and accredited.
- Communication, project management and organizational skills;
- Minimum 10 years' experience in cooperation for development and management of projects;
- Minimum 10 years' experience in tropical forestry;
- Experience in working under community and participatory models;
- Immediate availability after selection for the position.

### **2. TECHNICAL ASSISTANT**

**Main role:** To support the Pre-project Coordinator in the successful implementation of activities and to achieve planned outcomes.

**Duration:** 6 months

**Location:** City of Lima. Offices of SOS PAN PERU

**Specific duties:**

- Provide support in the logistics of pre-project workshops and meetings, administration and budget and assist the Pre-project Coordinator as necessary;
- Assist in administration duties for the organization and implementation of meetings and workshops as planned;
- Support the preparation of workshop materials and assist specialists and moderators in charge of coordinating the workshops;
- Support the Project Coordinator in the collection of technical, social and economic information as required for the implementation of pre-project activities;
- Support the development of the project proposal in technical and logistical terms.



**Qualifications and skills:**

- Bachelor's degree in forest engineering;
- Experience in preparing budgets and financial management and the use of office automation, with the main software on the market;
- Communication and public relations skills.

**3. SPECIALISTS IN FOREST MANAGEMENT AND BIOBUSINESS / GEOGRAPHIC INFORMATION SYSTEMS AND RURAL DEVELOPMENT**

**Main role:** Officer in charge of the compilation of studies and research and the collection of field information with a view to presenting, discussing and recommending proposals that are consistent with the socioeconomic reality and biophysical conditions of the target site in accordance with his/her field of expertise.

**Duration:** 4 and 2 months

**Location:** Location of pre-project intervention area

**Qualifications and skills:**

**• Forest Management and Biobusiness Specialist: Highly qualified professional forest engineer with extensive experience in development of forest management plans in rural or indigenous communities. Preferred: experience in development proposals and/or plans designed for tropical montane forests. Furthermore, this specialist should have experience in analysis of global goods and services markets and production and value chains to help propose consistent alternatives for the valuation of tropical montane forest resources. Preferred: professionals with extensive experience in NTFP management. This consultant will provide support in the economic and financial assessment of the project proposal to be submitted.**

• GIS / Rural Development Specialist: Professional in Geographic Sciences or Engineering, with extensive experience in preparing thematic maps, and socioeconomic studies relating to their spatial scope. Furthermore, this consultant will provide support in the organization of consultations, surveys and consultation workshop with potential beneficiaries at the location of pre-project intervention.

## ANNEX 4: RESPONSE TO THE SPECIFIC RECOMMENDATIONS OF THE 55TH EXPERT PANEL

### A) Overall Assessment

The Panel recognized that the aim of this pre-project is to develop a project proposal for the reevaluation, restoration and sustainable development of the Quina (*Cinchona* spp) tree and associated native species of the western montane forests of Peru and that this pre-project is especially timely under current situation of Covid-19 pandemic. The Panel recognized that the pre-project proposal was consistent with ITTO's mandate and objectives as set out in ITTA, 2006. This pre project is well drafted with concise and clear sentences

However, the Panel noted that there was still a need for improvement in the following sections and sub-sections dealing with: (1) international travels are not necessary in Activity 1.3; (2) request for project personnel budget to ITTO is too high for project activities; in particular, despite the provision of National Director by the Executing Agency, the cost of Project Coordinator is too high. The number of staff involved in the pre-project is numerous.

### B) Specific Recommendations

The proposal should be revised taking into account the overall assessment **and** the following:

1. Reconsider the necessity of international travels in Activity 1.3.
2. Reduce the budget for project personnel requested to ITTO by scaling down the cost of Project Coordinator and other staff.

### C) Conclusion

Category 1: The Panel concluded that the proposal could be commended to the Committee with incorporation of amendments.

### **RESPONSE TO SPECIFIC RECOMMENDATIONS**

| <b>Specific Recommendations</b>   | <b>Amendment(s) made</b>  | <b>Page#</b>                               |
|---|---|--|
| 1. Reconsider the necessity of international travels in Activity 1.3.   | It was considered appropriate to remove the international trip to the neighbouring country of Ecuador (Loja), proposed under Activity 1.3. This change has been reflected in the budget tables  | Pages 9, 12-17                             |
| 2. Reduce the budget for project personnel requested to ITTO by scaling down the cost of Project Coordinator and other staff. | This recommendation has been considered and the budget for the Project staff to be financed by ITTO has been revised. The salaries of the Project Coordinator and Specialists have been scaled down, and the staff has also been reduced (e.g. Workshop Facilitators (03) and 01 Specialist have been removed). The Workshop Facilitators will be replaced by the relevant specialists according to the topic to be addressed in each workshop, and the Biobusiness Specialist will be replaced by a professional with overall expertise as a forest management and biobusiness expert. | Pages 1, 12-17 and 23                      |
|   | The overall pre-project budget has been scaled down and ITTO contribution has been reduced by US\$15,736.   | Page 1 AND budget tables on pages 12 to 17 |