



Argentina



Secretaría de Ambiente y Desarrollo Sustentable de la Nación



Jefatura de GABINETE de Ministros

### United Nations Development Programme

Country: Argentina

### PROJECT DOCUMENT

### Promoting the application of the Nagoya Protocol on ABS in Argentina

**UNDAF Effect(s):** The country will have applied strategies to promote productive development by generating, disseminating, and mainstreaming sustainable land management practices consistent with the creation of decent work, sustainable use of natural resources, preservation of the environment, and protection of health.

**UNDP Strategic Plan Integrated Results and Resources Framework (IRRF) OUTPUT 2.5** Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation **Indicator 2.5.1** Number of countries with legal, policy and institutional frameworks in place for conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems. a) Legal frameworks b) Policy frameworks c) Institutional frameworks

**Expected Outcome(s) of the Country Programme Action Plan:** Outcome 2: Policies and strategies designed and implemented for managing and preserving land, forests, water resources, and biological diversity.

**Expected Output(s) of the Country Programme Action Plan:** New economic and financial instruments involving citizen participation and gender mainstreaming, with particular focus on local communities, to promote natural resources conservation.

**Executing Entity/Implementing Partner:** Ministry of Environment and Sustainable Development (MINAMB)

#### Brief description

The project’s objective is to contribute to the implementation of the Nagoya Protocol by strengthening the national access and benefit-sharing (ABS) framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal product. The strategy includes three (3) components that will contribute to the conservation of biodiversity of global significance: a) strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol; b) contributing to the conservation and sustainable use of genetic resources derived from the guanaco population; and c) pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), including fair and equitable sharing of benefits. In particular, activities will be conducted directly contributing to capacity building both at national and provincial levels, including improvements in current ABS policies and rules. Additionally, the strengthening of wildlife management instruments will contribute to the improvement of the habitat of guanacos and to a harmonized view of sustainable use and conservation. Furthermore, a study will be conducted, which is intended to find antibodies (VHH) of the genetic resources of guanacos providing grounds to formal documents on the fair and equitable sharing of monetary and non-monetary benefits between providers and users of genetic resources. The project specifically addresses national and provincial ABS regulations, the conservation and sustainable use of guanacos, and the development of a product based on the genetic resources of guanacos and commercial application with fair and equitable benefit sharing, generating global environmental benefits for biodiversity conservation.

Programme Period:	2010-2015
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Atlas Award ID:	00095752
Project ID:	00099822
PIMS #:	5339
Start date:	07/2016
End date:	07/2018
Management Arrangements:	NIM
PAC Meeting Date:	TBD

<b>Total resources required</b>	<b>US\$ 4,216,090</b>
<i>Total allocated resources: (US\$): 3,309,965</i>	
o GEF	908,904
o Chubut Province	826,250
o INTA	215,000
o MINAMB*	1,309,811
o UNDP	50,000
<i>In-kind contributions: 906,125</i>	
o MINAMB*	23,125
o INTA	500,000
o Vrije Universiteit Brussel	348,000
o ALGENEX Spain	35,000
* Matching funds not channeled through UNDP	

Agreed by (Government): \_\_\_\_\_  
Date/Month/Year

Agreed by (Executing Entity/Implementing Partner): \_\_\_\_\_  
Date/Month/Year

Agreed by (UNDP): \_\_\_\_\_  
Date/Month/Year

## LIST OF ACRONYMS

ABS	Access and Benefit-Sharing
ANPCyT	National Agency for Science and Technology Promotion ( <i>Agencia Nacional de Promoción Científica y Tecnológica</i> )
AOP	Annual Operational Plan
APN	Administration of National Parks ( <i>Administración de Parque Nacionales</i> )
AWP	Annual Work Plan
CAME	Confederation of Medium Enterprises ( <i>Cámara de la Mediana Empresa</i> )
CBD	Convention on Biological Diversity
CENPAT	Patagonia National Center ( <i>Centro Nacional Patagónico</i> )
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNA	National Agricultural Census ( <i>Censo Nacional Agropecuario</i> )
COFEMA	Federal Environmental Council ( <i>Consejo Federal de Medio Ambiente</i> )
CONADIBIO	National Advisory Commission for the Conservation and Sustainable Use of Biodiversity ( <i>Comisión Nacional Asesora para la Conservación y el Aprovechamiento Sostenible de la Diversidad Biológica</i> )
CONICET	National Scientific and Technical Research Council ( <i>Consejo Nacional de Investigaciones Científicas y Técnicas</i> )
DFyFS	Directorate of Wild Flora and Fauna of Chubut ( <i>Dirección de Fauna y Flora Silvestre de Chubut</i> )
DINREP	National Directorate of Economic Relations with the Provinces ( <i>Dirección Nacional de Relaciones Económicas con las Provincias</i> )
DNSA	National Directorate of Animal Health ( <i>Dirección Nacional de Sanidad Animal</i> )
DNOAyCB	National Directorate of Environmental Management and Biodiversity Conservation ( <i>Dirección Nacional de Ordenamiento Ambiental y Conservación de la Biodiversidad</i> )
DPOyRN	Directorate of Indigenous Peoples and Natural Resources ( <i>Dirección de Pueblos Originarios y Recursos Naturales</i> )
ERC	UNDP Evaluation Resource Center
FAO	Food and Agriculture Organization of the United Nations
FONARSEC	Argentinean Sector Fund ( <i>Fondo Argentino Sectorial</i> )
GEF	Global Environment Facility
GDP	Gross domestic product
GGP	Gross geographic product
GTCB	Working Group on Biodiversity Conservation ( <i>Grupo de Trabajo sobre Conservación de la Biodiversidad</i> )
IPR	Initial Project Report
IPW	Initial Project Workshop
IUCN	International Union for Conservation of Nature
INAI	National Institute of Indigenous Affairs ( <i>Instituto Nacional de Asuntos Indígenas</i> )
INASE	National Seeds Institute ( <i>Instituto Nacional de Semillas</i> )
INTA	National Agricultural Technology Institute ( <i>Instituto Nacional de Tecnología Agropecuaria</i> )
M&E	Monitoring and Evaluation
MAYCDS	Ministry of Environment and Control of Sustainable Development of Chubut ( <i>Ministerio de Ambiente y Control del Desarrollo Sustentable de Chubut</i> )
MAGyP	Ministry of Agriculture, Livestock and Fisheries ( <i>Ministerio de Agricultura, Ganadería y Pesca de la Nación</i> )
MAT	Mutually Agreed Terms
MDTySP	Ministry of Territorial Development and Production Sectors of Chubut ( <i>Ministerio de Desarrollo Territorial y Sectores Productivos de Chubut</i> )
MERCOSUR	Southern Common Market
MINAGRI	Ministry of Agro Industry ( <i>Ministerio de Agro Industria de la Nación</i> )
MinCyT	Ministry of Science and Technology ( <i>Ministerio de Ciencia y Técnica</i> )
MINAMB	National Ministry of Environment and Sustainable Development
NAB	Nano-antibodies

NBS	National Biodiversity Strategy
NBSAP	National Biodiversity Strategy and Action Plan
NGOs	Non-governmental organizations
NIH	National Institutes of Health
NIIS	National Integrated Information System
NPC	National Project Manager
NPD	National Project Director
NTPM	National Technical Project Management
NoV	norovirus
OBIO	National Biodiversity Observatory ( <i>Observatorio Nacional de Biodiversidad</i> )
PAC	Project Advisory Committee
PEC	Project Executive Committee
PIC	Prior Informed Consent
PICT	Technical and Scientific Research Projects
PIF	Project Identification Form
PIR	Project Implementation Report
PIU	Project Implementing Unit
PPG	Project Preparation Grant
RedUniBio	Universities and Biodiversity Network ( <i>Red Universidades y Biodiversidad</i> )
RENACI	National Registry of Indigenous Communities
RVA	Group A rotavirus
SAI	Supreme Audit Institution
SAyDS	Secretariat of Environment and Sustainable Development ( <i>Secretaría de Ambiente y Desarrollo Sustentable de la Nación</i> )
SCTI	Secretariat of Science, Technology and Innovation ( <i>Secretaria de Ciencia, Tecnología e Innovación de Chubut</i> )
SECIN	Secretariat of Coordination and International Cooperation of the Ministry of Foreign Affairs ( <i>Secretaría de Coordinación y Cooperación Internacional del Ministerio de Relaciones Exteriores</i> )
SENASA	National Agri-Food Health and Quality Service ( <i>Servicio Nacional de Sanidad y Calidad Agroalimentaria</i> )
SIFAP	Federal Protected Areas System ( <i>Sistema Federal de Áreas Protegidas</i> )
STM	Strategic Territorial Management
SNDB	National System of Biological Data ( <i>Sistema Nacional de Datos Biológicos</i> )
SNDG	National System of Genomic Data ( <i>Sistema Nacional de Datos Genómicos</i> )
SRNyDS	Former Secretariat of Natural Resources and Sustainable Development ( <i>Ex Secretaría de Recursos Naturales y Desarrollo Sustentable de la Nación</i> )
TM	Territorial management
TOR	Terms of Reference
TPM	Technical Project Manager
UNASUR	Union of South American Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNPSJB	National University of Patagonia San Juan Bosco ( <i>Universidad Nacional de la Patagonia San Juan Bosco</i> )
USD	United States dollars
VHH	single-domain heavy-chain antibodies
VUB	Vrije Universiteit Brussel

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## 1. SITUATION ANALYSIS

### 1.1. Context

#### *Environmental and biological context*

1. The territory of Argentina covers approximately 3.7 million square kilometers (km<sup>2</sup>) and is one of the most biodiverse countries in the world because of its latitudinal and altitudinal variation of climate, soil, and landscapes. The country contains 18 ecoregions that include tropical forests, grasslands, and coastal/marine ecosystems. These ecoregions are home to more than 120,000 biological species; 11,010 species of vascular plants; and 2,380 vertebrate species. Although the country lacks a complete inventory of invertebrates, preliminary records indicate that Argentina is home to approximately 111,000 species of arthropods, 550 species of mollusks, and 550 species of annelids. The largest number of endemic plant species is concentrated in the northwestern region of the country, particularly in Salta, Jujuy, Tucumán, Catamarca, and La Rioja provinces.

2. Argentina is one of the few countries of origin of the South American camelids (llamas, guanacos, and vicuñas). The Patagonia region of Argentina is home to the largest population of wild guanacos in the world (500,000 individuals). The guanaco (*Lama guanicoe*) is one of the largest herbivores in South America and is the largest wild camelid on the South American continent. The guanaco has evolved to occupy habitats with different vegetation structures, topography, climate, and the presence of human activities. Nevertheless, guanacos in Argentina have experienced a continuous decline in population due to habitat fragmentation and degradation, sheep farming, illegal hunting, and climate change<sup>1</sup>.

3. The Argentinean Patagonian steppe is a vast, open extension of land in southern Argentina, covering approximately 750,000 km<sup>2</sup> and extending from southern Mendoza to Tierra del Fuego provinces. It borders the high Andes Mountains to the west, which largely accounts for the environmental characteristics of this fragile ecosystem by influencing its climate. In the 1880s, British immigrants introduced the first sheep (*Ovis aries*) in Patagonia, encouraged by the government of Buenos Aires, which promoted the colonization of these “desert” lands<sup>2</sup>. Thus, in the late 19<sup>th</sup> century the number of sheep herds began to increase at the expense of guanacos and other wild animals such as rheas (*Rhea pennata*) and maras (*Dolichotis patagonum*) with a reduction in their abundance and spatial distribution. The advance of sheep farming was so significant that in 1950 there were nearly 22 million sheep in the region<sup>3</sup> competing with and replacing guanacos in grazing areas. The effect of intensive grazing resulted in a decline in plant species richness and a reduction in the vegetation cover, leading to a replacement of species such as high bushes and perennial grasses of high palatability for guanacos (e.g., *Stipa* sp. and *Poa* sp.) with small shrubs of low palatability and reduced diversity. These changes in vegetation structure and composition changed the characteristics of the land, causing extended soil erosion and loss of physical and chemical fertility<sup>4,5,6</sup>. These desertification processes have degraded the habitat of guanacos, leading to a decrease in the number of individuals.

4. A survey of the population of guanacos in some Patagonian provinces (e.g., Neuquén, Río Negro, Chubut, and Santa Cruz) was conducted in 2000, revealing the existence of approximately 400,000 guanacos in these provinces. In the Chubut province, which is located in central Patagonia and covers an area of 224,686 km<sup>2</sup>, guanaco populations dominate rugged areas with steep to moderate slopes characterized by low sheep abundance and limited human activity. These populations are present in landscapes where the human population consists of

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<sup>1</sup> Plan Nacional de Manejo de Guanaco, SAyDS.

<sup>2</sup> Franklin W.L. & Fritz, M.A. 199. Sustained harvesting of the Patagonia guanaco: is it possible or too late? In: Robinson, J.G. & Redford, K.H. (eds.) Neotropical Wildlife Use and Conservation. University of Chicago Press, Chicago and London, pp. 317–336.

<sup>3</sup> Soriano A., Movia C.P. 1986. Erosión y desertización en la Patagonia. *Interciencia* 11:77–83.

<sup>4</sup> Adler P.B.; Milchunas D.G.; Sala O.E.; Burke, I.C. & Lauenroth W.K. 2005. Plant traits and ecosystem grazing effects: comparison of U.S. sagebrush steppe and Patagonian steppe. *Ecological Applications*, 15, 774–792.

<sup>5</sup> Chartier M.P. & Rostagno C.M. 2006. Soil erosion thresholds and alternative states in north-eastern Patagonian rangelands. *Rangeland Ecology and Management*, 59, 616–624.

<sup>6</sup> Bisigato A.J.; Laphitz R.M.L. & Carrera A.L. 2008. Nonlinear relationships between grazing pressure and conservation of soil resources in Patagonian Monte shrublands. *Journal of Arid Environments*, 72, 1464–1475.

rural communities and, to a lesser extent, indigenous peoples. Traditionally, guanacos have provided an alternative source of meat for rural population and their families.

5. *Conservation of guanacos and their habitats*: Guanacos and vicuñas (*Vicugna vicugna*) are the only wild camelids in South America and the most abundant native wild herbivores. They are essential components of biodiversity in unique ecosystems in Latin America, such as the Patagonian steppe and the Highlands.

6. Guanacos play a significant ecological role in the temperate ecosystems in southern South America, shaping the distribution, abundance, and composition of plant communities. However, for various reasons, guanaco populations have significantly decreased since the late 19<sup>th</sup> century. They now cover only 40% of their original distribution<sup>7,8,9</sup> (Figure 1), from 8° to 55° south latitude in Tierra del Fuego. The guanaco habitat ranges from sea level to 4,500 meters (m) in altitude<sup>10,11</sup>. Currently, guanacos are present in Argentina, Chile, Bolivia, Peru, and northwestern Paraguay; Argentina is home to 96% of the total population, which is concentrated mainly in Patagonia<sup>12, 13</sup>.

7. The National Guanaco Management Plan was adopted by the Government of Argentina in 2006; the Chubut province joined this plan in 2007; and the Ministry of Industry, Agriculture, and Livestock agreed to develop a plan at the provincial level for guanaco management in 2007. The Guanaco Management Plan (2013-2018) for the Chubut province was approved in 2012 with the objective of ensuring the conservation of the wild population of guanacos and estimating their ecological, biological, economic, cultural, and social value in the Chubut province. Key plan components include: a) the conservation of wild populations of guanacos and their habitat; (b) the sustainable use of guanaco populations; and (c) the classification and reassessment of the value of the guanaco population by producers and the community. In addition to the Guanaco Management Plan, national and provincial governments have contributed to guanaco conservation through the creation of 46 protected areas cover a total of 10,051,005 hectares (ha) throughout Argentina.

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<sup>7</sup> Puig, S., Videla, F., 1995. Comportamiento y organización social del guanaco. En S. Puig (Ed.): Técnicas para el manejo del guanaco, UICN, Gland, Switzerland.

<sup>8</sup> Franklin, W. L., F. Bas, C. F. Bonacic, C. Cunazza, N. Soto, 1997. Striving to manage Patagonia guanacos for sustained use in the grazing agroecosystems of southern Chile. *Wildl Soc Bull* 25:65-73.

<sup>9</sup> Puig, S. 1992. Diagnóstico de situación y plan de acción para protección y manejo del guanaco en Argentina. In: H. Torres (ed.) *South American Camelids. An Action Plan for their Conservation*. IUCN/SSC South American Camelid Specialist Group.

<sup>10</sup> Cunazza, C., Puig, S. & Villalba, L. 1995. Situación actual del guanaco y su ambiente. In: Puig, S. (ed.) *Técnicas para el Manejo del Guanaco*. International Union for Conservation of Nature and Natural Resources, Gland, pp. 27–53.

<sup>11</sup> Wheeler, J. 1995. Evolution and present situation of the South American Camelidae. *Biol. J. Linnean Soc.* 54:271-295

<sup>12</sup> Franklin, W.L. 1982. Biology, ecology and relationship to man of the South American camelids. In: Mares, M.A. & Genoways, H.H. (eds.) *Mammalian Biology in South America*. Volume 6, Special Publication Series. University of Pittsburgh Press, Pittsburgh, pp. 457–489.

<sup>13</sup> Torres, H. 1985. Distribución y Conservación del Guanaco, Informe Especial N°2. International Union for Conservation of Nature and Natural Resources Publication Services Unit, Cambridge.

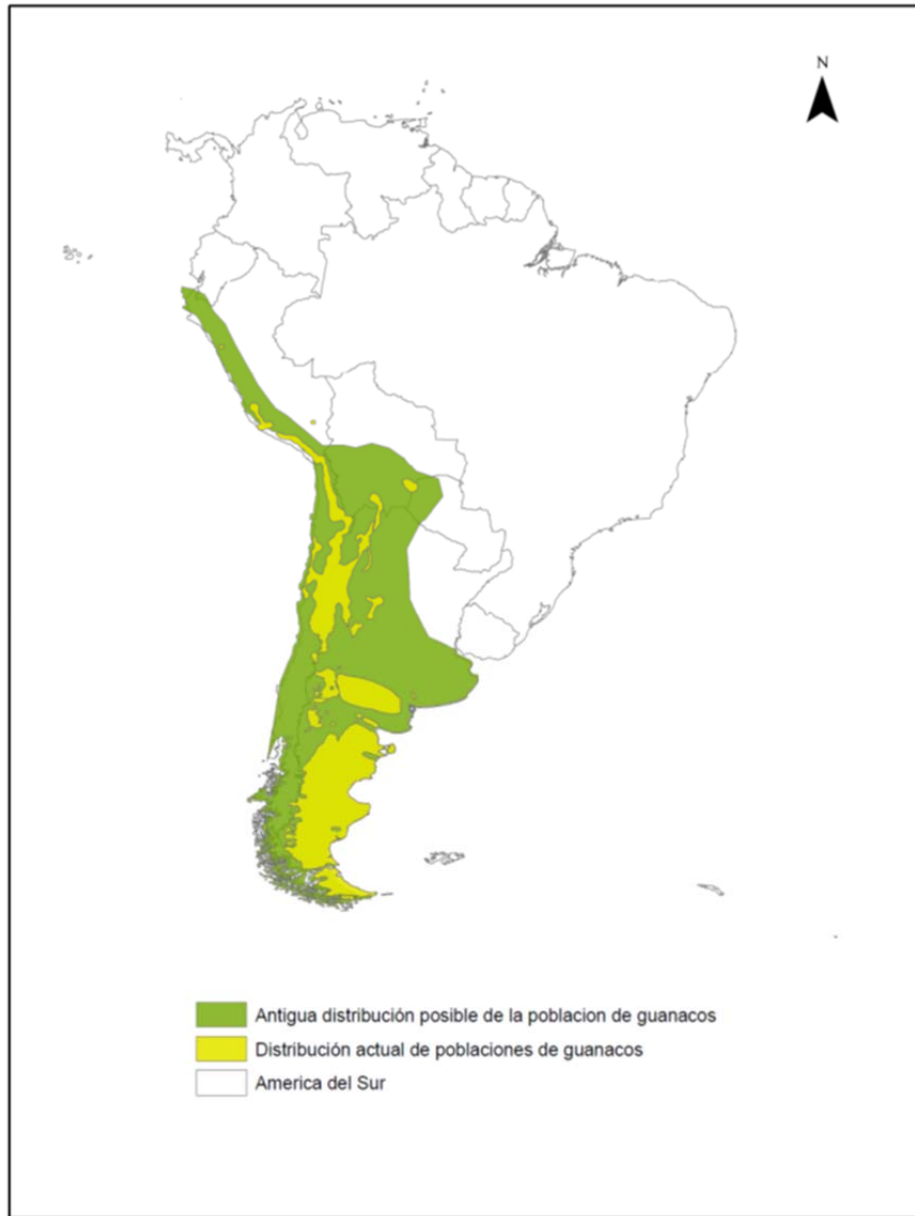


Figure 1 - Historical and current distribution of guanacos (*Lama guanicoe*) (from Franklin et al., 1997 and adapted by Baldi et al., unpublished data).

### ***Socioeconomic context***

8. The Republic of Argentina is located in the southern and western hemispheres. To the north the country borders Bolivia and Paraguay; to the east it borders Brazil and Uruguay, the Río de la Plata, and the Argentine Sea; to the west it borders Chile, and in the southern end its territorial waters reach the Sea of Hoces connecting the Atlantic and Pacific Oceans. The Argentinean economy is based on the natural resource use and biodiversity. Because of extensive agriculture and cattle-farming, Argentina is one of the main food producers in the world. Also, it is one of the world's leading beef exporters and one of the main producers of sunflower, yerba mate, lemons, and soybean oil.



9. With regard to government structure, Argentina is divided into 23 provinces and the federal capital, Buenos Aires. The provincial governments are entitled to subdivide their jurisdictional territory into smaller political units. Also, the country is divided into five geographic regions (Metropolitan Area, Pampas, Cuyo, Northwest, Northeast, and Patagonia), which include the different provinces of Argentina’s territory

10. According to the 2010 National Census, Argentina has an estimated population of 40,117,096 people. The largest urban concentrations are found in the Pampas Region (34.4%) and the Metropolitan Area of Buenos Aires (31.9%). This census reflected also indicated a relative growth of the Patagonia region. Indigenous peoples account for 2.4% of the total population; these peoples are concentrated in the provinces of Chubut, Neuquén, Jujuy, Río Negro, Salta, and Formosa, with percentages ranging from 8.7% to 6.1% of the population. Moreover, 70% of Argentina's indigenous peoples belong to Mapuche, Toba, Guarani, Diaguita, Kolla, Quechua, and Wichi groups. The remaining 30% of the people belong to the Comechingon, Huarpe, Tehuelche, Mocovi, Pampa, Aymara, Ava Guarani, Rankulche, Charrua, Atacama, Mbya Guarani, and Omaguaca groups, among others.



Figure 2 – Map of the Republic of Argentina (Source: National Geographic Institute).

11. The Chubut province is located in Central Patagonia (bordering the Republic of Chile to the west, the Río Negro province and the Santa Cruz province to the north, and the Atlantic Ocean to the east. Geographically, the territory of the Chubut province can be divided into three different areas: the Andean Foothills (or Andean Region), the Central Plateau, and the Coastline<sup>14</sup>.

12. From a political-administrative perspective, Chubut is divided into 15 departments: Biedma, Cushamen, Escalante, Florentino Ameghino, Futaleufú, Gaiman, Gastre, Languiño, Mártires, Paso de Indios, Rawson, Río Senguer, Sarmiento, Tehuelches, and Telsen. These departments do not have social or political representation; they mainly serve a geographical purpose. Also, the provincial government divided the territory into districts for a more balanced regional-municipal socioeconomic development. These districts were organized according to geographic characteristics (river basins, climate, and morphology), principal production activities, sociodemographic aspects, and the specific need for distinctive public works in each district. Furthermore, this division is based on the existence of territorial, historical, economic, and sociocultural bonds among their municipalities. The division is also intended to strengthen local identity and to increase the value of regional products. These districts are: Comarca de los Andes, Comarca Meseta Central, Comarca Virch - Península de Valdes, and Comarca Senguer - San Jorge<sup>15</sup>.

13. The total population of the Chubut province is approximately 506,668 (2010 census data). Chubut has a relatively low population density compared with the rest of the Argentinian provinces. Most of the population is located in the eastern coastal areas and in mountain valleys to the west. Small dispersed rural towns are found in the dry central plateau where the main economic activity is sheep farming. Guanacos are present in landscapes where the human population consists of rural communities, and to a lesser extent, indigenous peoples. In 2001, the rural population of the Chubut province was 43,427. In 2005, the total indigenous population of Chubut was 24,000, 53% of whom belong to the Mapuche group and the rest to the Tehuelche and Ona groups. Most of the indigenous population (72.2%) lives in urban centers, including the majority of the Mapuche (71.6%).

14. The Chubut economy is largely dependent on the use of its natural resources. The main economic activities are aluminum production, livestock production (sheep and goats), fishing, the oil industry, petrochemical activity, the textile industry, and tourism (Figure 3). Chubut's gross geographic product accounts for approximately 2% of Argentina's gross domestic product (GDP). The latest data available show that during the 1993-2009 period the level of economic activity in the province increased by 72.4%, whereas Argentina's economic activity only increased by 63.5%. The only exception to this growth was the negative variation experienced during the year 2008. However, this decline was not higher than the overall decline for the country as a whole<sup>16</sup>.

15. According to the 2008 National Agricultural Census (*Censo Nacional Agropecuario*; CNA), the total area used for farming is 83%, most of which has documented ownership. From 1988 to 2008 Chubut's farming area decreased by 21%; the province is currently following the general trend of a noticeable reduction of smaller farming areas. This also brings about a concentration of land ownership in few hands and rural migration to urban centers.

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<sup>14</sup> <http://www.ign.gob.ar/>

<sup>15</sup> [http://www.mecon.gov.ar/peconomica/dnper/fichas\\_provinciales/Chubut.pdf](http://www.mecon.gov.ar/peconomica/dnper/fichas_provinciales/Chubut.pdf).

<sup>16</sup> Report of the Chubut Province. Dirección Nacional de Relaciones Económicas con las Provincias (DINREP). Available at: <http://www2.mecon.gov.ar/hacienda/dinrep/Informes/archivos/chubut.pdf>.

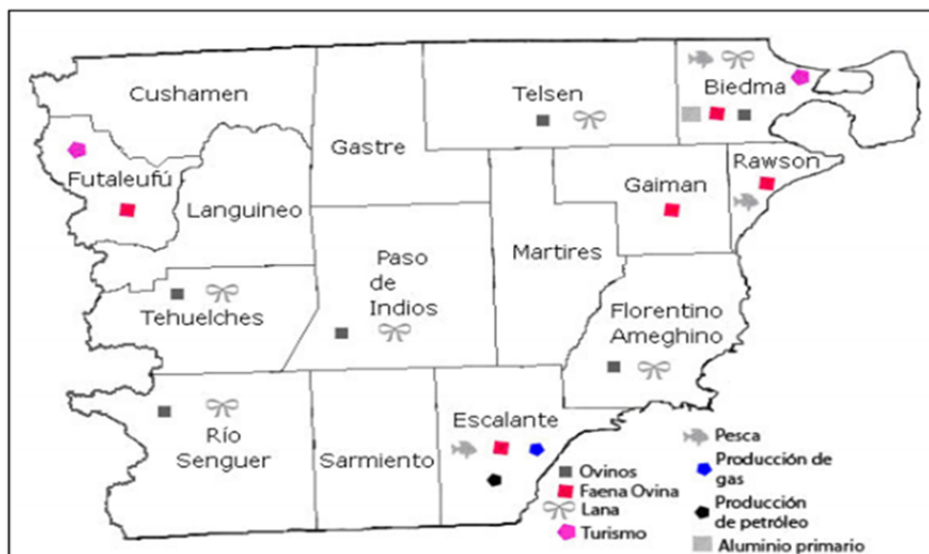


Figure 3 – Territorial distribution of economic activities in the Chubut province (Source: National Directorate of Economic Relations with the Provinces [*Dirección Nacional de Relaciones Económicas con las Provincias*; DINREP], Provincial Reports).

16. The sustainable management of the guanaco is a productive and profitable alternative, as a variety of products and by-products, such as meat, hide, leather, and fiber, can be obtained with its use. There is a demand for guanaco-based fiber for the manufacture of luxury apparel. Also, the manufacture of these products by local communities and/or indigenous peoples adds commercial value to the products. In the past, indigenous peoples regarded guanacos as an extremely important resource—their wide distribution helped these groups move across the territory while using them as a basic resource. Moreover, this animal was the core of their socioeconomic structure and served as a key livelihood resource. Guanacos were not limited to use as a source of meat (a source of calories that replace the lack of carbohydrates in environments like Patagonia with scarce edible plants); rather, the whole animal was used: hides were used to make mantles and build huts, while hides of younger guanacos were used to make coats, ropes, and straps<sup>17</sup>.

### ***Policy and regulatory context***

17. Argentina has a federal government system, which allows for checks, mutual cooperation, and consensus between the national/federal and provincial governments. The provinces are independent and pass their own laws and have their own constitution. The Argentinean regulatory framework for ABS is determined at the international level by the Convention on Biological Diversity (CBD), which was ratified through Law No. 24,375.

18. At the national level, the basis for the Argentinean ABS regulatory framework is the National Constitution. Article 124 of the Constitution states that the Provinces have original ownership over the natural resources existing in their territories, including genetic resources. Thus, each province has the right to grant PIC and to negotiate MAT for access to the genetic resources within its jurisdiction. Article 41 of the Constitution establishes that the authorities shall ensure the rational use of natural resources for the preservation of the country's natural and cultural heritage and biodiversity, including regulation of the use of genetic resources. In addition, Article 41 of the Constitution dictates that it is the responsibility of the national government to establish laws containing a minimum budget for protecting the environment and the responsibility of the provinces to establish laws that support and complement the national laws, without such laws altering the authority of the local jurisdictions. Thus, national authorities shall dictate the basic rules of biodiversity protection (in this case, access to genetic resources), whereas the provinces shall be in charge of thoroughly regulating access to the genetic resources that

<sup>17</sup> Musters, G. Ch.[1869-70] 1979. *Vida entre los Patagones*. Buenos Aires, Solar-Hachette.

are within their jurisdictions. It is important to note that although the scope of competence seems clear, coordination between the national government and the provinces can be complex. After the constitutional amendment was made, most of the provinces amended their constitutions and incorporated concepts related to the protection and preservation of the environment and, in particular, of their natural resources.

19. After the adoption of the CBD, the Government of Argentina enacted Law No. 24,375 adopting the Convention. The government appointed the Secretariat of Environment and Sustainable Development (*Secretaría de Ambiente y Desarrollo Sustentable de la Nación*; SAyDS, as of December 2015 Ministry of Environment and Sustainable Development, MINAMB) to enforce the rules set forth in the CBD. As such, and in accordance with Article 15 of the CBD, SAyDS agreed to regulate access to genetic resources derived from biodiversity through Resolution No. 226/2010 and in line with the framework provided by existing national and international regulations at the time of the enactment (Bonn Guidelines)<sup>18</sup>. This resolution, which is only applicable when the aim of access to genetic resources is related to their import or export, requires the authorization of the competent authorities to be granted access to these resources. Thus, the resolution itself does not set forth a general regulation (or minimum requirements) for access to genetic resources in Argentina; rather, it regulates the import or export of these resources, therefore establishing similar provisions for access to them.

20. In this sense, under Resolution No. 226/2010, all persons, or legal entities, public or private, national or foreign, require authorization to access genetic materials, when the aim of access is to import or export them. The resolution covers all genetic material as defined in Article 2 of the CBD, regardless of the intended use; including scientific, industrial or trade purposes. The national competent authority to enforce the resolution is the National Directorate of Environmental Management and Biodiversity Conservation (*Dirección Nacional de Ordenamiento Ambiental y Conservación de la Biodiversidad*; DNOAyCB) of the Undersecretariat of Planning and Environmental Policy of the MINAMB. Last, the resolution creates a Registry for Access to Genetic Resources where applications for access, import, or export are recorded. This register will be administered by the DNOAyCB. The cultivars regulated by Law No. 20,247 on Seeds and Phytogenetic Creations are not covered by the resolution. In addition, this resolution contains an annex of utmost importance: Annex I, which sets forth the requirements to apply for access to and/or export or import of genetic resources. The resolution provides for the need to negotiate and to establish mutually agreed terms on the conditions of use and benefit-sharing derived from access to genetic resources as set forth in the CBD (Article 15.4) and the Nagoya Protocol (Article 5). These shall be agreed upon with the competent national or provincial authority, depending on the jurisdiction.

21. On November 15, 2011, Argentina became the 67<sup>th</sup> signatory to the Nagoya Protocol. In Resolution No. 238/2012 of the Federal Environmental Council (*Consejo Federal de Medio Ambiente*; COFEMA), a request was made to Congress in 2012 to discuss the bill to ratify the Nagoya Protocol because of its strategic, local, and regional value, as well as its ecological, social, and economic importance. In addition, this resolution aimed to promote the ratification of the protocol within the regional scope of the Southern Common Market (MERCOSUR) and the Union of South American Nations (UNASUR), due to the great ecosystem diversity found in Latin American countries.

22. With the update of the National Biodiversity Strategy (NBS), MINAMB initiated the enhancement and strengthening of national policies to foster the conservation and sustainable use of biodiversity and the goods and services supplied. Biodiversity conservation is viewed from an ecosystem perspective, where sustainable use contributes to economic growth and to the country's inclusive development. The progress report on the update of the NBS (2014) includes a new core area associated with genetic resources covering the principles and objectives

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<sup>18</sup> The Voluntary Guidelines were adopted in 2002, with a view to helping member countries establish administrative, regulatory and/or political measures for access and benefit-sharing, particularly the provisions of Articles 8 j); 10 c); 15; 16, and 19 of the CBD and/or the negotiation of the MAT for access to genetic resources and benefit-sharing. These voluntary guidelines help countries, as providers and users of genetic resources, to implement ABS procedures effectively and within a transparent framework. These guidelines emphasize the elements that should be included in the PIC (the basic principles of a PIC system include legal certainty and clarity, facilitated access to genetic resources at a minimum cost, and restrictions on access to genetic resources that are transparent, based on legal grounds, and do not run counter to the objectives of the CBD) and in the MAT (the basic principles and requirements to be considered include legal certainty and clarity, facilitating the transaction through clear information and formal procedures, reasonable periods of time for negotiations, and terms set out in a written agreement). They also establish the main responsibilities of users and providers, including a list of possible monetary and non-monetary benefits that can arise from ABS.

to create, develop, and strengthen a National Integrated Management System of Genetic Resources. Moreover, the new core area of genetic resources sets forth specific objectives consistent with the implementation of this GEF project and relevant aspects for the conservation and protection of the access to genetic resources and the fair and equitable sharing of benefits derived from their use. Also, the strategy states that in situ biodiversity conservation with an ecosystem-based approach is the most beneficial and economical solution, since species and habitats are protected within the landscapes they occupy (NBS Update, 2014).

23. In Argentina, at least eight of the 23 provinces have regulated access to their genetic resources, namely: Jujuy, Misiones, La Rioja, San Luis, La Pampa, Neuquén, Río Negro, and Tierra del Fuego. According to the National Constitution (Article 124), the provinces have the original domain over the natural resources existing in their territories, including genetic resources. Consequently, they have exercised their constitutional power (Article 41) to legislate on environmental matters, in this case, by issuing specific rules on access to genetic resources and benefit-sharing; thereby complementing the scarce regulation on this issue at the national level. The Chubut province, one of the main project partners, has not yet regulated ABS—one of the goals of this project is to achieve the development of appropriate regulation in the province.

24. With regard to the legal framework for the protection of indigenous peoples, there are no specific rules in Argentina for the protection of the traditional knowledge they hold related to the use of genetic resources. The National Constitution could serve as a basis for the future development of legislation in order to comply with the Nagoya Protocol. Article 75.17 recognizes “the ethnic and cultural pre-existence of indigenous peoples of Argentina,” thus ensuring, together with the provinces, the “respect for their identity and ensuring their participation in issues related to their natural resources and in other matters affecting them.” In addition, Article 1 of the National Law on Indigenous Policy and Support for Aboriginal Communities declares “of national interest the attention and support to the natives and the existing communities in the country, as well as their defense and development for their total participation in the socioeconomic and cultural processes of the country, while respecting their own values and ways.”

25. The national framework for the protection of guanacos is based on the National Guanaco Management Plan. The plan sets the goals and defines the actions needed for the conservation of guanacos in Argentina, which resulted from an extended discussion and consensus-building process to lay the basis for a management plan that ensures guanaco conservation and its sustainable use. The plan was approved by SAyDS Resolution No. 477/2006. Resolution No. 220/98 of the former Secretariat of Natural Resources and Sustainable Development of Argentina (*Secretaría de Recursos Naturales y Desarrollo Sustentable de la Nación*; SRNyDS) and SAyDS Resolution No. 82/03 establish management guidelines to regulate the export and inter-provincial transit and trade of guanaco products and by-products under federal jurisdiction. Only the use of and trade in guanaco fiber from live animals is permitted.

### ***Institutional context***

26. Several organizations and institutions working on environmental issues have been established at both the national and provincial levels. In addition, agreements between the national government and the provinces have been made to establish consensus about environmental policies, such as the Federal Environmental Council, the Federal Protected Areas System, and the Federal Environmental Agreement.

27. The most important agency in charge of the planning and implementation of environmental policy is MINAMB, which reports to the Office of the Cabinet of Ministers. The agency coordinates national government environmental policies, the different agencies in charge of executing environmental policies and plans, and the incorporation of environmental policy in the ministries and national government agencies. In addition, MINAMB is responsible for the dissemination of environmental information and for raising awareness about environmental issues in the country. Among other responsibilities, it oversees the implementation of all national and international agreements and is responsible for drafting additional environment-related agreements.

28. MINAMB is the enforcement authority of the CBD, and within its scope the National Advisory Commission for the Conservation and Sustainable Use of Biodiversity (*Comisión Nacional Asesora para la Conservación y el*

*Aprovechamiento Sostenible de la Diversidad Biológica*; CONADIBIO) was established. CONADIBIO is formed by governmental and non-governmental organizations (NGOs)<sup>19</sup> to coordinate and implement national policies and to promote the conservation and sustainable use of biodiversity and the goods and services provided, as well as the fair and equitable sharing of benefits derived from the use of genetic resources and traditional knowledge.

29. The Registry for Access to Genetic Resources was created to implement Resolution No. 226/2010. The registry covers all applications for access, export or import, as all natural persons or legal persons (public or private, national, or foreign) are required to request authorization to access genetic material<sup>20</sup> from biodiversity (whether collected or acquired) for research or scientific purposes. International trade in genetic resources is thus registered through the issuance of the appropriate certificates. The registry's management system is based on seven steps: a) receipt of request, b) review and assessment of request, c) consultation with provincial authorities, d) issuance of authorized certificates, e) contact with users in the case of incomplete forms or rejected applications, f) data entry and registration, and g) filing; and where appropriate, transfer to other MINAMB areas with specific technical competence. The MINAMB Wild Flora and Fauna Control and Inspection Group, the Customs General Directorate, and provincial authorities are in charge of monitoring and control activities.

30. Indigenous peoples in Argentina have traditionally inhabited territories with natural resources of exceptional value and rich biodiversity, which have served as their main source of food, building materials, medicines, and other products and services. Acknowledging the role of indigenous peoples in environmental conservation, SAyDS Resolution No. 58/2007 established the Directorate of Indigenous Peoples and Natural Resources (*Dirección de Pueblos Originarios y Recursos Naturales*; DPOyRN) to develop state policies enabling these peoples to manage their lands, territories and resources, while exerting their right to set development priorities according to their worldview.

31. *Chubut's natural resources institutional framework*: Chubut's governmental structure related to environment and sustainable development is divided into two ministries. First, the Ministry of Environment and Control of Sustainable Development (MAyCDS) is responsible for the design, implementation, and management of environmental policies in the province. In particular, it focuses on the coordination and promotion of plans and actions to enhance the environment with sanitation, preservation, conservation, and the protection of the natural resources. Its primary activities are the control and inspection of environmentally sound management of the water, hydrocarbon, and mining resources. On the other, the Ministry of Territorial Development and Production Sectors (*Ministerio de Ambiente y Control del Desarrollo Sustentable de Chubut*; MDTySP) is in charge of regulation the use of the land and renewable and non-renewable goods and resources. Furthermore, it plans and implements policy related to provincial fish resources, and is responsible for the preservation, protection, improvement, and sustainable use of native forests and the implementation of national and provincial programs. In particular, the MDTySP is in charge of implementing policies promoting sustainable development and economic policies to encourage sustainable activities, both at provincial and regional levels. According to Article 13 of Law I No. 508, the MDTySP is in charge of the monitoring, control and inspection of local production activities and of the design of farming, forest, fishing, and industrial policies enforcing provincial and national laws regulating these activities, and developing plans and programs to enhance production in the province. The MDTySP also implements management policies under the Provincial Guanaco Management Plan, which provides the basis for its conservation and sustainable use.

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<sup>19</sup> Governmental agencies include MINAMB, the Ministry of Agriculture, Livestock and Fisheries, the Ministry of Science, Technology and Productive Innovation the Administration of National Parks, the General Directorate of Environmental Affairs (DIGMA) of the Ministry of Foreign Affairs and Worship, the National Agricultural Technology Institute, the National Inter-University Council, the National Scientific and Technical Research Council (*Consejo Nacional de Investigaciones Científicas y Técnicas*; CONICET) and the Federal Environmental Council (*Consejo Federal de Medio Ambiente*; COFEMA), representing the provinces. With regard to non-governmental agencies, participating bodies include business chambers related to CBD objectives, non-governmental agencies related to CBD objectives, indigenous organizations, private university rectors council, and unions and professional organizations also related to these objectives.

<sup>20</sup> The resolution is based on the definition of genetic material included in Article 2 of the CBD, i.e. "any material of plant, animal, microbial or other origin containing functional units of heredity."

## 1.2. Threats, impacts, and root causes

### *Threats to biodiversity with specific reference to guanacos*

32. The main threats faced by guanacos in the Chubut province are habitat transformation, competition for land due to the introduction of sheep, hunting, and climate change.

33. **Habitat transformation and sheep farming:** Habitat transformation is largely related to the overstocking of the natural feeding range of guanacos with domestic livestock, principally sheep. Domestic sheep were introduced across the Guanaco's range, reaching 22 million head within 50 years in the Argentine Patagonia region. Natural guanaco densities in the Chubut province are  $\leq 2$  individual/km<sup>2</sup>, while sheep densities may reach more than 10 individuals/km<sup>2</sup>. Both guanacos and sheep largely overlap in their foraging preferences, with more than 80% of their diets identical. Sheep overstocking has resulted in large native patches dominated by tall shrubs with high species richness being replaced with small dwarf shrub patches (dominated by *Larrea divaricata*) with low species richness, and the disappearance of natural grassy patches. Also, the expansion of livestock farming and agriculture across natural areas, the placement of wire fencing, the development of the mining and oil industries, the growth of urban areas, and the building of roads cause the decline of wildlife and even their extinction. In the case of guanacos, habitat fragmentation prevents contact and movement between nearby groups. This has caused guanacos to occupy marginal, poor-quality lands in terms of vegetation cover and food availability, as sheep ranching monopolizes the most productive areas.

34. **Hunting and illegal trade:** Many farmers allow guanacos to be hunted on their lands to reduce their numbers, as they think of this species as a barrier for productive development. In addition, guanacos are used to feed dogs or, to a lesser extent, for human consumption; guanacos are also hunted for sport. Data on the illegal hunting of guanacos during the 2006-2012 time period show that although there is a slight decrease in the number of illegal hunters intercepted, there is an increase in the number of confiscated animals; during this time 125 illegal hunters were detained and 376 animals were confiscated.

35. **Climate change:** Climate change models predict a sharp decline in rainfall within the next 50 years in the arid zones of southern South America. Land desertification due to more severe and frequent droughts associated with climate change, coupled with overgrazing, may have major effects on the guanacos' abundance throughout their Patagonian range. For example, in Cabo dos Bahías Reserve (Chubut), which is a small protected area (1,200 ha) surrounded by private lands that restrict movement of wildlife, the estimated population of guanacos in the year 2000 was around 40 individuals/km<sup>2</sup>. The same year and after a prolonged drought, the guanaco population collapsed and 80% of its members perished.<sup>22,23</sup> In other areas of Patagonia, the low density caused by the landscape fragmentation led to the local extinction of the species. These changes are associated with changes in the hydrological cycle, with negative consequences for guanacos.

### *Direct and underlying causes*

36. **Land use changes due to the expansion of farming, mining, and urban development:** The expansion of livestock farming across natural areas, the development of the mining and oil industries, the expansion of urban areas, and the increasing presence of wires fence and roads cause **habitat loss and fragmentation**. It is estimated that 30% of Patagonia's area of nearly 600,000 km<sup>2</sup> is currently undergoing desertification due to land use change<sup>24</sup>. In addition, land use changes result in the fragmentation of habitat, preventing contact between nearby groups of guanacos and their freedom to move about. As a consequence, closed and isolated populations are formed, posing a high risk to the species due to the loss of genetic diversity, reduced feeding grounds, and lack of

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<sup>21</sup>Baldi R.; Albon S. D. and Elston D. A. 2001. Guanacos and sheep: Evidence for continuing competition in arid Patagonia. *Oecologia* 129:561-570.

<sup>22</sup>Baldi R.; Novaro A.; Funes M.; Walker S.; Ferrando P.; Failla M. & Caramanchahi P. 2010. Guanaco management in Patagonian rangelands: a conservation opportunity on the brink of collapse. In *Wild Rangelands. Conserving Wildlife While Maintaining Livestock in Semi-Arid Ecosystems* (eds J. du Toit, R. Kock & J. Deutsch), pp. 266-290. Blackwell Publishing, Oxford, UK.

<sup>23</sup>Baldi R.; de Lamo D.; Failla M. et al. 2006. Plan Nacional de Manejo del Guanaco (*Lama guanicoe*) Argentina.

<sup>24</sup>Del Valle HF (1998) Patagonian soils: a regional synthesis. *Ecol Aust* 8:103-123

escape routes during extreme weather events<sup>25,26,27,28</sup>. The lack of farms with sustainable ranching practices within a landscape matrix that will allow enhanced connectivity with protected areas prevents genetic flow between populations, thereby jeopardizing the viability of guanaco populations. Furthermore, there is a lack of national and provincial guidelines that require farmers to adjust livestock densities to field capacity, which would reduce the risk of desertification and competition with guanacos.

**37. Irregularities in land tenure:** The process of “colonization” of Patagonia lacked monitoring and control by the government regarding the allocation of land and titles. In addition, the large size of estates and the low prices at which these estates were purchased, since most of the land was considered a semi-desert or desert, led to indifference toward land stewardship<sup>29</sup>. As a consequence, the objective of farming these lands was always based on intensive and extensive systems, disregarding environmental sustainability and the conservation of biodiversity.

**38. Institutional weakness in the control of illegal activities at national and provincial levels.** Weak capacity at the national and provincial levels for the enforcement and control of illegal activities jeopardizes the long-term viability of the guanaco populations<sup>35</sup>. The lack of resources and the large land areas makes monitoring difficult and ineffective.

**39. Lack of protected areas designed to preserve the ecological processes related to the species:** Existing protected areas lack of planning and management designs that would maximize the conservation of guanacos considering their ecological needs within the larger landscape, including enhanced connectivity between protected areas. The protected areas occupied by guanacos require strengthened management plans aimed at achieving the integrated management of guanaco populations beyond their borders.

**40. Negative perception of farmers towards the protection of guanacos:** Sheep farmers regard guanacos as a competitor for foraging resources and believe that their presence prevents the increase in the number of sheep on their lands. This negative view of the species generates rejection of the presence of guanacos in fields used for grazing sheep.

**41. Lack of management plans prior to the 2006 National Guanaco Management Plan:** Before the development of the National Guanaco Management Plan, Argentina lacked a strategic plan to promote the sustainable use of guanacos. This gap resulted in the emergence of unsustainable activities and traditional land uses at the expense of guanacos.

### 1.3. Long-term solution

**42. The long-term solution** is to promote the sustainable use of the genetic and biochemical resources of guanacos through scientific research, biodiversity conservation, and a strengthened federal and provincial ABS framework. Argentina must increase its ability to add value to its genetic resources by developing scientific practices and procedures that facilitate the flow of these resources from their natural habitats to the market. In return, the economic benefits derived from the marketing of products must be shared between users and providers of the genetic resource and contribute to the conservation of guanacos in their natural habitat. Specific actions that will be developed through the project that will contribute to reducing threats to guanacos and other biodiversity in the Patagonian landscapes are summarized in Table 1.

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<sup>25</sup> Raedeke K.J.1979. Population dynamics and socio-ecology of the guanaco (*Lama guanicoe*) of Magallanes, Chile. Ph. D. dissertation, University of Washington. 405 pp.

<sup>26</sup>Merino M. L y Cajal J.L. 1993. Studies on Neotropical Fauna and Environment28: 129-138.

<sup>27</sup>Cajal J. L. and Ojeda R. A.1994. Camélidos Silvestres y Mortalidad por tormentas de nieve en la cordillera frontal de la Provincia de San Juan, Argentina.Mastozoología Neotropical1(1): 81-88.

<sup>28</sup>Borrero, L. A. 2001. Regional Taphonomy: Background noise and the Integrity of the Archaeological Record. In: Ethnoarchaeology of Andean South America.Contributions to archaeological Method and Theory, Edited by L. A. Kuznar, pp 243-254. International Monographs in Prehistory. Ethnoarchaeological Series 4.

<sup>29</sup>Baldi R.; de Lamo D.; Failla M. et al. 2006. Plan Nacional de Manejo del Guanaco (*Lama guanicoe*). Argentina. Secretaría de Ambiente y Desarrollo Sustentable de la Nación, Buenos Aires.



Table 1 - Project contributions to the reduction of threats to biodiversity.

Threats	Solutions
Habitat fragmentation and sheep farming	<ul style="list-style-type: none"> <li>- The Provincial Guanaco Management Plan and the National Guanaco Management Plan will be strengthened to: a) enhance the conservation and sustainable use of guanacos and their habitat, and b) adjust livestock numbers to field capacity, considering guanacos' ecological needs</li> <li>- Development of low-impact animal herding and shearing techniques aimed at raising awareness and training local stakeholders in protocols to minimize the negative impacts on the animals and optimizing their use by local communities</li> <li>- Technical capacities will be strengthened to optimize field procedures related to guanaco conservation and its sustainable use.</li> <li>- Development of a standardized survey protocol to study the sanitary condition of individuals and to assess the implications of potential sanitary issues for their conservation and sustainable use</li> </ul>
Hunting and illegal trade	<ul style="list-style-type: none"> <li>- The Provincial Guanaco Management Plan and the National Guanaco Management Plan will be strengthened, including monitoring and control mechanisms (patrolling, means of enforcement, and reporting of infractions and setting penalties) to reduce illegal hunting and trade of guanacos.</li> <li>- Effectively involve local and provincial level stakeholders in guanaco management plan implementation</li> </ul>
Climate change	<ul style="list-style-type: none"> <li>- Strengthened management plans and capacity development considering guanacos' ecological needs, will result in more resilient guanaco populations to climate change and variability through increase in natural vegetation cover, substrate rehabilitation (natural pastures), and increase in vegetation species richness.</li> </ul>

#### 1.4. Barriers analysis

43. With a view to contributing to the implementation of the Nagoya Protocol in Argentina, this project proposes a series of actions to strengthen the national ABS framework and facilitate access to genetic resources of guanacos for the development of an anti-diarrheal treatment. However, the following barriers have been identified:

**Barrier 1: Weak national ABS framework, limited capacity, and lack of public support prevent the operationalization of the Nagoya Protocol obligations.**

44. In 2011, Argentina signed the Nagoya Protocol and it was ratified in December 2015 by the National Congress, even though is still not under implementation. While key provisions of the Nagoya Protocol have already been taken into account by Federal Resolution No. 226 (2010,) the National Constitution establishes that provinces have jurisdiction over their natural resources. Consequently, provinces must enact laws and policies that comply with the minimum standards set by the Federal Resolution No. 226 and are consistent with provincial-level regulations. This means that the provinces must develop their own ABS frameworks in order to facilitate implementation of the Nagoya Protocol. For this reason, it is necessary to strengthen mechanisms that will provide national level policy with greater legal security and transparency for the stakeholders involved in the access and use of genetic resources, their derivatives, and traditional knowledge, as well as enabling the update of a legal framework that promotes the use of genetic resources, their derivatives, and traditional knowledge, and which strengthens the fair and equitable distribution of benefits. The institutional and individual capacities within the provincial governments or implementing ABS are limited—this is due to the lack of knowledge and information on the topic, weak institutional framework for implementing ABS, and limited resources for training

activities to strengthen the regulatory framework related to ABS. Currently, there are no plans to strengthen capacities in order to increase knowledge about genetic resources or national technologies. Similarly, knowledge among the civil and academic sectors about ABS is limited; representatives of civil society (NGOs, companies, etc.), indigenous peoples (*Instituto Nacional de Asuntos Indígenas* [INAI], DPOyRN, communities of PO, etc.), technical and administrative security agencies, scientists, and specialists (National Agricultural Technology Institute [*Instituto Nacional de Tecnología Agropecuaria*; INTA], CONICET, universities, etc.) lack the skills required to implement ABS (e.g., ABS rules and procedures, negotiation of ABS agreements, and monitoring and tracking to ensure compliance). Finally, there is limited awareness among the multiple stakeholders about ABS legislation, the CBD, the Nagoya Protocol, and the potential benefits derived from the use of genetic resources.

45. During the PPG, the weakness of the national framework and the lack of a provincial ABS framework were verified. In addition, the available mechanisms are not enough to implement the ABS framework as capacities and resources at both the national and provincial levels are limited. In addition, civil society is not aware of ABS and lacks the necessary knowledge and tools to implement such a framework.

### **Barrier 2: Limited capacity to mainstream biodiversity principles into production landscapes inhabited by guanacos**

46. Although the Provincial Guanaco Management Plan and the National Guanaco Management Plan include biodiversity conservation principles, they are limited in scope. The plans do not consider protocols for the development of landscape management tools (shearing and herding) that will generate socioeconomic and environmental benefits for local communities living in landscapes where guanacos are present; thus, it is necessary to strengthen both the provincial plan and the national plan for the effective mainstreaming of the conservation and sustainable use of guanaco into livestock production practices. Additionally, the local communities and indigenous peoples who reside in the production landscapes of the Chubut province must be trained in biodiversity conservation principles and the implementation of management tools for the sustainable use of guanaco fibers (shearing and herding).

47. The Provincial Guanaco Management Plan was developed fairly recently (2012), and a survey protocol for studying the sanitary status of the guanaco population in Chubut province is still lacking, as well as a census of guanacos to determine the size and density of the population. The plan is implemented through annual work plans (AWPs); AWP 2013 was the first to be developed and is considered a pilot effort. The plan also requires the strengthening of its monitoring and surveillance component in order to address the threats guanacos currently face, including illegal hunting. Finally, aspects related to the sustainable use of guanacos and their incorporation into the management plans of protected areas still need to be strengthened in both the Provincial Guanaco Management Plan and the National Guanaco Management Plan.

48. During the PPG, illegal hunting of guanacos was identified as a persistent problem as the provincial government lacks the resources to monitor guanaco populations located within its jurisdiction. Furthermore, existing institutional capacities are not enough to strengthen the Provincial Guanaco Management Plan for the conservation and sustainable use of the species. Similarly, the capacity of local communities who reside in the production landscapes of Chubut to mainstream principles for the conservation and sustainable use of guanacos into production practices is limited.

### **Barrier 3: Limited capacity to develop an anti-diarrheal product based on genetic information from guanacos**

49. VHH nano-antibodies from guanacos may be used to develop an alternative treatment to gastrointestinal infections; however, in Argentina this has not been studied in depth largely due to the limited political support and the lack of scientific knowledge and technology required. Acute gastroenteritis is the second most common clinical condition after respiratory infections; globally, 3 to 5 billion cases of acute gastroenteritis and nearly 2 million deaths occur each year in children under 5 years old. In Argentina approximately 1 million cases of acute gastroenteritis are reported annually. The highest rates are reported in the northwestern region of the country, where acute gastroenteritis causes 100 deaths per year in children under 5 years old, or 1.2% of deaths in this age

group; in the northern region of Argentina this rate doubles to 2.1%. Rotavirus is the main causative agent of acute gastroenteritis and is responsible for 150,000 cases, 15,000 hospitalizations, and 30 deaths per year in children under 5 years old in Argentina; this represents 30% all acute gastroenteritis in this age group.

50. Although a rotavirus vaccine is already available, vaccination is not part of the government’s obligatory vaccine calendar and its high cost precludes it from being accessed by the most economically disadvantaged populations. On the other hand, there is no vaccine for norovirus, which is the main causative agent of food-borne diarrhea in humans of all ages. Despite the fact that a VHH anti-norovirus may represent an alternative treatment for gastrointestinal infections, especially in immunocompromised patients, and that guanacos may possess better molecular VHH structures than llamas, their development is currently not a priority in Argentina. Additionally, the provincial and federal authorities have limited knowledge of the alternative treatments for acute gastroenteritis, and the whole range of the monetary and non-monetary benefits derived from developing guanaco-based VHH treatments has not been fully assessed. Accordingly, there is limited support from the government for developing research by national institutions and universities, who despite their interest in the topic usually work in isolation and with limited resources. In addition, the scientific knowledge and technology required for developing and testing a VHH-based alternative treatment for acute gastroenteritis is still not in place in the country, and local institutions have to rely on external universities and research centers for new scientific developments. Although scientific cooperation among national and international universities and research centers already exists, this needs to be strengthened through joint research and technology transfer.

### 1.5. Stakeholder analysis

51. The principal stakeholders in the project are presented in Table 2, which was developed and proposed by MINAMB, the Chubut province, and INTA with support from UNDP. These agencies share the objectives to develop tools for the implementation of the Nagoya Protocol in Argentina, to preserve biodiversity, and to develop an anti-diarrheal treatment based on a provincial genetic resource, while valuing biodiversity and promoting its sustainable use.

52. At the national and provincial levels, MINAMB and the Chubut province are responsible for the promotion of biodiversity conservation and sustainable use through the implementation of legal and regulatory tools, including the Nagoya Protocol; thus, they are key stakeholders for this project. INTA is the national agency that will promote the development of a product based on guanaco genetic resources and will play a key role for the implementation of legal tools to ensure PIC, MAT, and ABS with the provider of the genetic resources (Chubut province). Other key stakeholders at national level include the CONICET, the National Animal Health and Agri-Food Quality Service (*Servicio Nacional de Sanidad y Calidad Agroalimentaria*; SENASA), the National Directorate of Animal Health (*Dirección Nacional de Sanidad Animal*; DNSA), and the Ministry of Agro Industry (*Ministerio de Agro Industria*; MINAGRI). Key stakeholders at local level include communities, indigenous peoples, and NGOs.

Table 2 – Key project stakeholders.

Stakeholders	Interest / Role in the project
National Ministry of Environment and Sustainable Development (MINAMB)	MINAMB is charged with implementing environmental policies and management in Argentina. It is the focal point for the CBD and the Nagoya Protocol. Through the Working Group on Biodiversity (GTCB), the MINAMB is reviewing the National Strategy on Biodiversity, in which a new related core area on genetic resources will be introduced. Thus, progress is made on the adoption of measures ensuring and contributing to the implementation of the Nagoya Protocol in Argentina. MINAMB is in charge of generating and consolidating a new legal and political ABS framework at the national level based on the Nagoya Protocol. It is also responsible for the institutional capacity-building and for the resources necessary for the implementation of the Protocol and Resolution No. 226. Through its Wildlife Directorate it has developed a series of programs and strategies at national, provincial, and local levels that will allow

Stakeholders		Interest / Role in the project
		coordinating actions with the academic and technological sectors. MINAMB will serve as co-financier of the project.
Provincial government of Chubut	Ministry of Territorial Development and Production Sectors (MDTySP)	MDTySP is in charge of regulating the use of the land and renewable and non-renewable goods and resources. Within the MDTySP, the Undersecretariat of Fisheries, the Undersecretariat of Forests and Parks, and the Undersecretariat of Livestock and Agriculture are especially important for this project, as they are responsible for the conservation and the sustainable use of natural resources in the province. To develop and strengthen the provincial regulatory framework for access and fair and equitable sharing of benefits derived from the use of genetic resources, the collaboration and coordination of the three undersecretariats and their directorates are essential.
	Directorate of Wild Fauna and Flora (DFyFS)	The DFyFS reports to the Undersecretariat of Agriculture and Livestock of the MDTySP. Its main objective is the management of animal resources and the conservation and use of species of economic interest. It developed a Provincial Guanaco Management Plan to raise awareness of the value of guanacos as a natural resource of the province. The directorate is a key stakeholder for the strengthening of the Provincial Guanaco Management Plan and to consolidate provincial ABS framework. In addition, the DFyFS will be strengthened through capacity-building.
	Secretary of Science, Technology and Innovation (SCTI)	SCTI plays a decisive role in the funding of scientific projects for the development of information for wild species management. Furthermore, it coordinates scientific activities with the different national research centers. SCTI will provide valuable knowledge and will coordinate actions and establish synergies with project and other stakeholders.
	Ministry of Environment and Control of Sustainable Development (MAyCDS)	MAYCDS is responsible for environmental impact assessments and providing environmental education at the provincial level, and works with other provincial agencies to strengthen programs, plans, and actions for preventing pollution or for cleaning up natural resources. Where necessary, environmental policies will be coordinated and collaboration will be sought to implement the project.
National Institute of Agricultural Technology (INTA)		INTA is a federal agency charged with the development, adaptation, and diffusion of technologies, knowledge, and learning procedures for agricultural, forest, and agro-industrial activities within an ecologically pristine environment. INTA has experience in the development of libraries of VHH genes from llamas. It is a key stakeholder, as it will develop VHH nano-antibodies from guanaco genes by comparing the structural and biochemical properties of their VHHs with those obtained from llamas. In addition, it will serve as co-financier of the project.
Private sector: ALGENEX Spain		ALGENEX (Alternative Gene Expression) Spain is a biotechnology company whose main focus is the development of vaccines, diagnostic reagents, and therapeutic molecules to improve human and animal health. It has provided technical cooperation to INTA's Institute of Virology for the scale-up of the VHH expression of rotavirus in insect larvae since 2009. It has developed a transgenic mouse model that expresses anti-RV VHHs derived from llamas in its milk. The effectiveness studies to be carried out in this model will serve as a proof of concept within the development of a functional dairy

Stakeholders	Interest / Role in the project
	product to prevent neonatal diarrhea with milk obtained from transgenic cows. Additionally, the IBES system will express VHHs of the Group A rotavirus (RVA) and norovirus (NoV) that are obtained from guanaco libraries to assess the quality of expression and their performance in comparison with those derived from llamas. In addition, it will serve as co-financier of the project.
Vrije Universiteit Brussel	Dr. Muyldermans, a researcher at this university, discovered camelid nano-antibodies and has wide experience in this matter. The laboratory of the Universiteit Brussel will sign an agreement on technical cooperation with INTA to study the functionality of VHH antibodies from wild guanacos to study their structure and advantages compared with llama antibodies and thus extend the biological sources that give origin to an innovative platform at the global level. Additionally, it will be instrumental in the transfer of technology and the development of technical skills needed by Argentinian researchers for the development of an anti-diarrheal treatment using guanaco VHH nano-antibodies. Vrije Universiteit Brussel is co-financing this GEF-funded project.
Communities and indigenous peoples	These stakeholders are extremely important due to their close relationship with the environment, since they live in territories with natural resources of exceptional value and rich biodiversity. Local and indigenous populations will receive benefits from the development of a product for acute gastroenteritis using guanaco VHH antibodies. Additionally, they will benefit from training related to the implementation of ABS (e.g., processing access applications, negotiating ABS agreements, and monitoring and tracking to ensure compliance) and conservation of biodiversity, and will use and benefit from the implementation of management tools for the sustainable use of guanaco fibers (shearing and herding).
Non-governmental organizations (NGOs)	NGOs are key stakeholders at the local level, since they have an active presence and develop specific actions locally related to the environment and have vast experience in in the conservation and sustainable use of biodiversity. There are several NGOs in Argentina that focus on the protection and conservation of fauna and flora, such as Fundación Orca, Fundación Onda Verde, Asociación de la Patagonia, Fundación Bosques Nativos Argentinos para Biodiversidad, Fundación Patagonia Natural, among others, which will be called for consultation on their views on the actions needed for project implementation.
Universities and research centers	The National University of Patagonia San Juan Bosco (UNPSJB) and the Patagonia National Center (CENPAT) will actively participate in field research and will provide relevant scientific information for project implementation.
National Scientific and Technical Research Council (CONICET)	CONICET is an important ally that will help build capacity to conduct a scientific-technical information survey. It is also important for its direct link with national researchers and will support INTA's research on VHHs through post-graduate fellowships.
National Agri-Food Health and Quality Service, through the National Directorate of Animal Health (SENASA)	SENASA is an independent agency of the Argentinian government charged with surveillance, regulation, and certification of products of animal and plant origin and the prevention, eradication, and control of diseases and plagues that affect them. SENASA will make major contributions to improve the health management of wild guanacos and will help in the design of a survey protocol of the sanitary status of the guanaco population in the Chubut province.
National Advisory Commission for the Conservation and Sustainable Use of Biodiversity	CONADIBIO provides an important forum for the project, where consensus will be sought between the different stakeholders for project implementation (biodiversity conservation, access, and/or use). CONADIBIO actively develops and coordinates round tables to discuss policies on genetic resources, on which this project is based.

Stakeholders	Interest / Role in the project
(CONADIBIO)	
United Nations Development Programme (UNDP) Argentina	UNDP Argentina is the implementing agency for this project. It works to reduce poverty and to promote sustainable development in Argentina. It also provides guidance, technical assistance, management tools, knowledge, and expertise to institutions at national and regional level to help them in the implementation of public policies, initiatives, and projects. In addition, it will serve as co-financier of the project.

## 1.6. Baseline

53. The baseline investment for this project builds on the following activities carried out since the late 1990s to strengthen the federal ABS and indigenous framework, conserve the guanaco population, and unleash the potential of genetic resources of the guanaco in order to develop an anti-diarrheal treatment:

54. *Strengthening the federal and provincial ABS/indigenous peoples frameworks and capacity-building:* In 1994, Argentina ratified the CBD; three years later SAYDS was designated as the institution in charge of facilitating implementation of the CBD. In 1997, CONADIBIO was also created in order to support SAYDS with the development of national policies to mainstream biodiversity principles into sustainable development. In 2011, the country signed the Nagoya Protocol and ratified it in December 2015. Argentina is a country with a federal and provincial system where federal laws set minimum standards that are adopted or strengthened at the provincial level through additional laws or policies. Today, ABS is regulated by Resolution No. 226, which establishes a federal regime, including a registry for access applications. While provinces such as Jujuy and Misiones have approved ABS laws that are consistent with the federal resolution, other provinces such as Chubut still need to develop provincial-level ABS frameworks.

55. Implementing Resolution No. 226 of ABS and the Nagoya Protocol requires strengthening the capacities of key institutions and raising awareness about the importance of genetic resources and traditional knowledge, and the promotion of research and scientific knowledge on genetic resources and their use, to promote a fair and equitable distribution of benefits of products derived from these resources. During the last few years, SAYDS has been undertaking capacity-building activities for several government organizations (e.g., customs, the National Institute of Fishing Research and Development [INIDEP], INTA, etc.) to facilitate the understanding of Resolution No. 226.

56. Argentina also has a comprehensive set of laws and policies to protect the rights of indigenous and local communities. These include Law No. 23,302, which promulgates indigenous policy and support to aboriginal communities, and Law 24,071, which ratifies the Indigenous and Tribal Peoples Convention No. 169 of the International Labor Organization. INAI is the government organization in charge of developing channels and instruments to implement the rights of indigenous peoples protected by Article 75 of the National Constitution. To date, INAI has registered 925 indigenous communities in the National Registry of Indigenous Communities (RENACI) and is facilitating the participation of indigenous communities in the creation and implementation of development projects. INAI will also participate in requests involving PIC for use of genetic resources and the associated traditional knowledge,

57. *Conserving guanacos and their habitats:* In 2006, the National Guanaco Management Plan was approved; in 2007 the Chubut province adhered to this plan; and in 2007 the Ministry of Industry, Agriculture, and Cattle Ranching decided to formulate a provincial-level plan for the management of guanacos. In 2012, a 2013-2018 Guanaco Management Plan for the Chubut province was approved. The objective of the plan is to ensure the conservation of the wild population of guanacos (*Lama guanicoe*) and estimate their biological, ecological, economic, cultural, and social value in Chubut. Key components of the plan include: a) maintaining the wild



populations of guanacos and their habitat; b) using the populations of guanacos in a sustainable manner; and c) the ranking and re-valuation of the guanaco population by producers and the community.

58. *Using genetic resources from guanacos to develop an anti-diarrheal treatment:* Diarrhea is the second most common cause of childhood mortality worldwide, causing 1.3 million deaths among children under 5 years old. RVA is the leading cause of severe diarrhea in children and is responsible for approximately 29% of all diarrheal deaths, causing 453,000 deaths per year. Human rotaviruses have also been implicated as causative agents of diarrheal outbreaks occurring in nursing homes, among travelers, in daycare centers, and in patients suffering from a variety of immunodeficiency conditions. In Argentina, the RVA diarrhea mainly affects children from the northern region of the country.

59. Live-attenuated rotavirus vaccines are available to prevent rotavirus diarrhea in immunized children with demonstrated efficacy in developed countries. In Argentina, the vaccines are available but they are not included in the obligatory vaccine calendar, and their high cost precludes the low-income population from impoverished areas from accessing the vaccine. However, although they are excellent tools to control the disease, these kind of live-attenuated vaccines are not suitable for children suffering from immune deficiencies. Recent clinical trials showed that RVA vaccines have significantly lower efficacy in countries with limited infrastructure and resources, usually the countries with the highest RVA burden.

60. In 1989, a new type of antibody was identified, first in the sera of dromedaries and subsequently in all other species of the Camelidae family. Building on this research, INTA has been investigating llama-derived single-chain antibody fragments (VHH) recombinant nano-antibodies as complementary or alternative passive immunity strategies to prevent RVA-induced diarrhea and as a potential treatment option. INTA developed and filed applications for patent rights of two VHHs named 3B2 and 2KD1, which were able to neutralize heterotypic RVA strains independently of their serotype. Furthermore, with the support of a Fogarty Grant from the National Institutes of Health (NIH) in the United States, INTA demonstrated that supplementation of a milk diet with 3B2 VHH twice a day for nine days conferred full protection against rotavirus-associated diarrhea and significantly reduced virus shedding in a suckling mouse model as well as in gnotobiotic piglets experimentally inoculated with a human RVA. In addition, INTA developed VHHs against human norovirus, which is the main cause of food-borne diarrhea in humans of all ages. This infection represents a huge health problem in immunocompromised patients, and to date there is no vaccine or specific treatment available to control norovirus-induced diarrhea.

61. All camelids possess heavy-chain antibodies and are potential sources of VHH libraries; however, wild guanacos have never been used for this purpose. INTA's goal with this GEF-funded project will be to explore wild guanacos as a source of VHH nano-antibodies and compare the structural and biochemical properties of their VHH with those obtained from domestic llamas.

62. Project Preparation Grant (PPG) results indicate that during the timespan of the proposed GEF investment (2015-2018), the **baseline project** consists of foundational initiatives estimated at \$3,605,060 USD. The Argentinean Government has undertaken actions to strengthen the ABS framework and build capacity to facilitate the implementation of the Nagoya Protocol. The existing and planned investments for baseline programs and activities in 2015-2018 are estimated at \$2,080,000 USD (Component 1). There are few ongoing and planned projects and programs on regulatory reform of legal aspects, training in legal ABS, development of legal instruments and policies related to ABS practices and traditional knowledge. The MINAMB's GTCB carries out different activities within the framework of the National Biodiversity Strategy in a subcommittee on genetic resources with wide participation of government agencies. It also leads the National Biodiversity Observatory (*Observatorio Nacional de Biodiversidad*; OBio), which considers aspects such as traditional knowledge, native species, management of biodiversity and ABS at the national level. The Wildlife Directorate of Chubut province is charged with updating existing legislation.

63. Investment for baseline programs and activities to mainstream biodiversity principles into production landscapes inhabited by guanacos for the 2015-2018 period is estimated at \$1,131,070 USD (Component 2). MINAMB actions are mainly focused on the development of the National Guanaco Management Plan, which

began in 2006. Currently, all efforts to continue with this management line are made by the National Wildlife Directorate through the Guanaco Project. Chubut province allocates resources to the Provincial Guanaco Management Plan and to monitoring and control activities; however, there is a need to improve existing resources to attain the objectives established in the provincial plan. The National Agency for Science and Technology Promotion (*Agencia Nacional de Promoción Científica y Tecnológica*; ANPCyT) and the Ministry of Science and Technology (*Ministerio de Ciencia y Técnica*; MinCyT) administer a Fund for Sector Technology Innovation and Social Development of Camelids to build critical capacity in potentially high impact areas by the production sector, and to address social problems by incorporating innovation into production actions, social organization and technology development to improve life quality in a sustainable manner and to foster the social inclusion of all sectors. In addition, ANPCyT, through the Bicentenary Technical and Scientific Research Projects (PICT) managed by CONICET, addresses research topics that provide a substantial basis for camelid management. A specific WCS-REPSOL YPF project focuses on research to reduce poaching through the closure of dirt roads and effectiveness monitoring in Auca Mahuida, Neuquén province.

64. Investments for baseline programs and activities related to the use of guanaco genetic resources to develop an anti-diarrheal treatment for the 2015-2018 period are estimated at \$393,990 USD (Component 3). INTA's investments have mainly focused on the research of llama nano-antibodies, the development of laboratory methods, and on the training of researchers. Some of the funds were allocated to the improvement of laboratory facilities. For its part, ANPCyT, through the Argentinean Sector Fund (*Fondo Argentino Sectorial*; FONARSEC) developed by INTA, will strengthen research in the improvement of foodstuffs, such as milk modified with VHHs through specific molecular technologies to produce high value-added dairy products. Additionally, CONICET makes regular contributions to INTA's research on VHHs through doctoral and post-doctoral fellowships and through the allocation of resources to sponsor scientific research.

65. Despite the importance of these initiatives, they are insufficient to demonstrate the effectiveness of the national ABS framework and scientific community in unleashing the potential of genetic resources or to ensure that monetary and non-monetary benefits derived from these resources are shared equitably and conserve the biodiversity associated with the biological and genetic resources. Also, the necessary institutional and individual capacities to implement ABS-related initiatives are limited, including the ability of provincial governments and local communities to negotiate, implement, and monitor ABS agreements. In addition, the survival of the guanacos in production landscapes will remain uncertain; national and provincial guanaco management plans will continue to lack guidelines for implementing biodiversity-friendly management practices that diminish the impact of land users on the guanacos and their habitat or to ensure that other threats are reduced, including illegal hunting. It has been hypothesized that wild guanacos are a source of VHH nano-antibodies that may serve as a complementary or alternative passive treatment to prevent RVA-induced diarrhea; however, advances in this direction will be modest since the government support and the technical and financial capacities to develop and test an anti-diarrheal product based on VHH nano-antibodies will remain limited. INTA's goal with this GEF-funded project will be to explore the use of wild guanacos as a source of VHH nano-antibodies, and assess the structural and biochemical properties of their VHH compared with those obtained from domestic llamas.

## **2. STRATEGY**

66. The project aims to develop and strengthen the access framework and the fair and equitable distribution of benefits (ABS) through the use of biodiversity in accordance with the baselines established in the Nagoya Protocol, forming the necessary capacities to implement the Nagoya Protocol and test the objectives of ABS through facilitating access to the genetic resources of the guanacos under the principals of PIC, MAT, and biodiversity conservation. The proposed strategy will facilitate the ratification of the Nagoya Protocol and its alignment with the federal and provincial ABS regulations. Chubut province will develop ABS standards or policies that reflect the minimum standards established through the Federal Resolution 226/2010 and the Nagoya Protocol, with the objective of facilitating access to the genetic resources of guanacos and adjusting the distribution of benefits.



## 2.1. Project rationale and conformity with policy

67. This project is consistent with the GEF's focal area of biodiversity through the application of an ABS framework aligned with the baseline set forth in the Nagoya Protocol. The project will strengthen the national framework for ABS and it will provide access to guanaco genetic resources for the development of an anti-diarrheal treatment in line with the implementation of the Nagoya Protocol. In doing so it is directly aligned with Objective 4 of the GEF5 Strategy, *Build capacity on Access to genetic resources and Benefit Sharing (ABS)*. The project is also consistent with the Aichi Biodiversity Targets (4, 5, 18, 19), and will significantly contribute to Target 16: *By 2015 the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation*. By setting the initial framework for the win-win strategy of bio-prospecting and ABS agreement as potential sources of revenues for conservation, it will also provide insights for advancing Target 20: *Mobilize financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020*.

## 2.2. Country ownership: Country eligibility and country drivenness

68. By strengthening the framework for ABS agreements, furthering multiple partnerships for bio-prospection, and transferring related technology to local institutions, this project contributes significantly to the implementation of the Nagoya Protocol in Argentina and facilitates access to the genetic resources of guanacos for the development of an anti-diarrheal treatment. The project will promote the conservation of biodiversity in Argentina by strengthening the management capacity of the guanaco in the Chubut province.

69. The project will support biodiversity conservation in Argentina in line with the principles set forth in the National Constitution, the CBD, and the Nagoya Protocol. Similarly, the project is consistent with Resolution 226/2010 on ABS. The project is aligned with national policies and the national commitment to building capacity to achieve the set goals. The Argentinean government signed and ratified the CBD through Law 24,375, regulated by National Decree 1347/97, which is directly related to this project, like the Nagoya Protocol, signed by Argentina in 2011. In this sense, it should be noted that this project is consistent with the third general objective of the CBD for promoting fair and equitable sharing of the benefits derived from the use of genetic resources. The project is also in line with several CBD articles: Article 1. Objectives; Article 2. Use of Terms; Article 9. Ex-situ Conservation; Article 15. Access to Genetic Resources; Article 16. Access to and Transfer of Technology; and Article 19. Handling of Biotechnology and Distribution of its Benefits.

70. This project is also aligned with the Strategic Plan for Biodiversity 2011-2020 of the CBD, the mission statement of which is to *Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication. To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach*. It is also consistent with Strategic Goal C: *Improve the status of biodiversity by safeguarding ecosystems, species, and genetic diversity*, and with Strategic Goal D: *Enhance the benefits to all from biodiversity and ecosystem services*.

71. The project is aligned with the National Biodiversity Strategy and Action Plan (NBSAP), which covers national priorities in relation terms of obligations to the CBD. The project will also support the implementation of the regulatory framework, namely the Fauna Conservation Law No. 22421 (1981), through the development of mechanisms and instruments to facilitate implementation.

72. MINAMB has a number of programs and strategies (key tools to promote biodiversity conservation and sustainable use) that are applied at the national, provincial, and local levels with the participation of the academic and technology sectors, such as the National Program for the Management and Sustainable Use of Wildlife Species, the National Program for the Conservation of Endangered Species, the Program for Wildlife Fauna Habitat Protection, and the National Strategy on Exotic Invasive Species. The National Guanaco Management Plan (2006) is part of the National Program for the Management and Sustainable Use of Wildlife Species. The

project will support the implementation of the three components of the National Guanaco Management Plan: a) capacity development for the conservation, management, and sustainable use of guanacos; b) support and strengthening of provincial management plans; and c) management of the plans through education, communication, and training. Similarly, the project will contribute to strengthening the Provincial Guanaco Management Plan for Chubut province (2012) and will contribute to its implementation, in particular to the conservation of the guanaco population and its habitat.

### 2.3. Design principles and strategic considerations

73. Project Identification Form (PIF) Conformity. The project design is aligned with the original PIF. The project’s strategy, including the structure of the project components, closely resembles the PIF that was approved by the GEF. There have been three changes in relation to the PIF (increase in co-financing; change in Output 1.2; change in Output 2.2), which do not result in changes to the initially proposed strategy and do not affect the budget. Co-financing for Vrije Universiteit Brussel was slightly increased from \$30,000 USD in cash (PIF version) to \$348,000 USD in-kind, which will better contribute to the delivery of the expected global environmental benefits. Changes in outputs are described below:

PIF Outputs (Component 1)	Project Document Outputs (Component 1)
<i>Output 1.2: Draft proposals for a national framework for the protection of traditional knowledge and ABS regulations and administrative procedures of the Chubut province.</i>	<i>Output 1.2: Draft proposals for a national ABS framework includes the protection of traditional knowledge and ABS regulations and administrative procedures of the Chubut province.</i> The scope of the output was expanded based on the needs surveyed during the PPG. The change involves drafting a proposal for a national framework for ABS.
PIF Outputs (Component 2)	Project Document Outputs (Component 2)
<i>Output 2.2: Landscape management tools protocol (e.g., live fences, agroforestry and/or silvopastoral systems, enrichment of existing forests, etc.) improves the quality of life for local communities and contributes to the conservation of guanacos and their habitat.</i>	<i>Output 2.2: Protocol of management tools for the shearing and herding of guanacos improves the quality of life for local communities and contributes to the conservation of guanacos and their habitat.</i> The project will focus efforts on the current use of the guanacos (i.e., use of fibers) to promote their conservation rather than on the development of landscape management tools. This new approach was agreed to during the PPG with the key stakeholders of the project. The new output is based on improving current guanaco management practices and providing tools (sustainable shearing and herding of guanacos) that incorporate animal well-being and conservation concepts.

74. The GEF Agency’s comparative advantage for implementing this project: UNDP has been selected as Implementing Agency considering its ample experience in the establishment of governance frameworks and capacity development. The project is aligned with the focal areas of UNDP/Argentina regarding integrated policies, institutional strengthening, and community participation. The project includes strengthening of the governance framework at provincial level and will benefit low income families thereby contributing to poverty reduction, all of these priority goals of UNDP/Argentina. Moreover, UNDP has an important portfolio of GEF projects in Argentina as well as in Latin America on biodiversity conservation, therefore offering an excellent opportunity for dissemination of best practices and up-scaling of project results. The UNDP has experience working globally in biodiversity conservation projects and in Argentina has provided support to the government in numerous and diverse programmes involving multiple stakeholders to support strategies and mechanisms for

biodiversity and sustainable development. Since 2012, the UNDP has consolidated implementation of the third objective of the CBD through GEF-funded projects that facilitate not only the ratification of the Nagoya Protocol but also access to genetic resources and benefit-sharing in about 20 countries. The UNDP is working with governments and stakeholders in developing countries that already have a policy framework in place for ABS in order to assist them in accessing financing and to facilitate ABS deals such as sustainable ethical biodiscovery programs or deals between corporations interested in accessing genetic resources and organizations representing the providers of these resources. In this context, UNDP is also supporting local and indigenous communities for the development of payment and benefit-sharing mechanisms and bio-cultural community protocols. The UNDP is also supporting countries with the development of national ABS frameworks. The project will have the specialized support of the Senior Technical Adviser (STA) for ABS who holds a Ph.D. on a related topic with direct experience in ABS projects and manages a growing portfolio of ABS projects globally. The UNDP's mandate on ABS is underscored by the UNDP's Biodiversity and Ecosystems Global Framework (2012-2020) and the 2014-2017 Strategic Plan. Both policy documents emphasize the UNDP's role in ABS capacity-building initiatives, including the development of national ABS frameworks and support for ethical biodiscovery efforts that facilitate the sharing of monetary and non-monetary benefits between users and providers of genetic resources in line with the Nagoya Protocol provisions.

75. Coordination with other related initiatives: The project will work closely with the GEF initiative to *Support to the updating of the (2014-2020) NBSAP*, in particular regarding the integration and coordination of activities to mainstream biodiversity principles into public policies and facilitating the conservation and sustainable use of species such as guanacos nationwide. Argentina's National Biodiversity and Action Plan (NBSAP) activities will also contribute to strengthening the national framework for ABS at the national and provincial levels, including complementarity of actions between ABS laws and policies and other relevant regulations such as the Fauna Conservation Law No. 22421, the Forest Law No. 26331, and CITES. In addition, the NBSAP will promote the development of a national integrated system of genetic resources that includes coordination, communication, and monitoring mechanisms for genetic resources. Because MINAMB will act as Executing Agency for the NBSAP initiative and the project proposed herein, coordination and complementarity between the two projects will be facilitated

76. The project will coordinate actions with the UNDP/GEF AR/15/54 (2015-2020) Project *Mainstreaming sustainable use of biodiversity in production practices of small producers to protect the biodiversity of high value conservation forests in the Atlantic Forest, Yungas, and Chaco* led by MINAMB. This recently approved project focuses on developing planning activities for the sustainable use of biodiversity (i.e., non-timber forest products) and strengthening value chains with social inclusion. Synergy between both projects will be established to exchange lessons learned regarding the strengthening of biodiversity management plans and the development of value-added biodiversity products.

77. Finally, the project will coordinate actions with the UNDP/GEF ARG/10/G49 project *Establishment of Incentives for Conservation of Globally Important Ecosystem Services*, which is currently under implementation. This project is testing mechanisms for payments for ecosystem services to ensure the protection of natural ecosystems in Argentina and the services provided. This project will complement these mechanisms through: a) the development of models for sustainable use and conservation of biodiversity, and b) the fair and equitable sharing of monetary and non-monetary benefits between providers and users of genetic resources. The experiences with guanaco management and the use of genetic resources gained through this project will be useful for exchanging knowledge and lessons learned between both projects.

#### **2.4. Project objective, outcomes, and outputs/activities**

78. **The goal of the project** is to contribute to biodiversity conservation through the implementation of the Nagoya Protocol in Argentina. The **Project Objective** is to contribute to the implementation of the Nagoya Protocol by strengthening the ABS framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal treatment. The project outcomes, outputs, and activities are detailed below.

**Outcome1: Strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol.**

79. This component will include: a) the ratification of the Nagoya Protocol; b) the development of a national framework (i.e., National Resolution) for the protection of traditional knowledge; c) the systematization of information at the federal level to facilitate ABS implementation; d) the development of a regulatory, institutional, and individual capacity framework for ABS implementation at the provincial level (i.e., Chubut province); and e) capacity-building for relevant stakeholders, such as the scientific sector, local communities, indigenous peoples, and the private sector.

80. A main objective of this project component is to provide a precise and transparent legal framework for the fair and equitable sharing of benefits arising from the use of genetic resources in Argentina. To create conditions to promote and encourage research contributing to biodiversity conservation and its sustainable use, the project will develop a training program and modules on bio-prospecting, value chains, marketing, business planning, codes of conduct, community participation protocols, and research procedures that will be made available to federal and provincial research institutions. This will be complemented by the integrated national information system on ABS projects on genetic resources and traditional knowledge linked to designated checkpoints, which will facilitate decision-making and compliance. Finally, to build public support for ABS, the project will carry out a campaign to raise awareness about the ABS law, the CBD, the Nagoya Protocol, and the scientific, technological, and socioeconomic benefits that targets researchers, local communities/indigenous peoples, industry, and relevant stakeholders. To assess enhanced awareness about the national ABS law, the CBD, and Nagoya Protocol KAP assessment surveys that target these specific groups who may use or benefit from ABS transactions will be carried out.

***Output 1.1: Increased political support and knowledge by the Argentinean Congress related to the potential scientific, technological, and socioeconomic benefits for the country from ratification of the Nagoya Protocol***

81. Political support will be sought through information dissemination activities relating to the Nagoya Protocol and the benefits associated with its ratification at the national level. Benefits derived from the management of genetic resources will be highlighted, as well as their relation to potential applications in the scientific (development-oriented research, R&D), technological (technological innovation based on scientific studies) and socioeconomic (benefits stemming from them) sectors. Knowledge will be provided based on national commitments and strategic definitions to achieve the ratification of the Nagoya Protocol. MINAMB will distribute information to the Senate of Argentina by means of updated documents on the current regulatory situation on ABS (see Output 1.2), ABS success cases in the country, and ABS experiences with benefits in the scientific, technological, and socioeconomic sectors.

***Output 1.2: Draft proposals for a national ABS framework includes the protection of traditional knowledge and ABS regulations and administrative procedures of the Chubut province***

82. The project will allow the development of a legislative proposal for ABS at the national level that adopts the principles of the Nagoya Protocol. The proposal allows the provinces to establish their own regulations, as there is currently no minimum budget for this purpose as dictated by the Constitution.

83. A national ABS regulatory basis will allow the drafting of a technical, legal, and socioeconomic document that considers further ABS regulations and the administrative processes for the Chubut province. Through national and provincial inter-institutional coordination, guidelines will be developed for managing genetic resources in the province in conformance with existing national and international regulations. To this end, meetings will be held with key stakeholders and technical assistance will be provided for the drafting of the documents. The draft versions of the documents for access to provincial genetic resources will be developed in conjunction with working groups from MINAMB, mainly the GTCB of the DNOAyCB, together with the provincial working groups of the DFyFS (MDTySP) and the MAyCDS, ensuring the protection of traditional knowledge through a National Resolution to be submitted to Congress for its approval, and outlining the appropriate administrative processes for the management of genetic resources in line with the Nagoya Protocol.

84. As part of the process to establish clear rules and procedures for PIC and MAT, the project will allow the development of a proposal for ABS regulations and administrative procedures to access genetic resources and to develop, implement, and monitor ABS agreements with PIC, MAT, and sustainable biodiversity principles in the Chubut province. One (1) National Resolution for the protection of traditional knowledge

***Output 1.3: 200 staff from the National or Federal Competent Authority (NCA), institutions within the Chubut province and local communities trained in ABS rules and procedures, community protocols, and traditional registries including negotiation of ABS agreements and monitoring of bioprospecting projects.***

85. The project will strengthen existing capacities of relevant national (MINAMB) and provincial authorities (DFyFS, MDTySP, MAyCDS) and local communities regarding ABS. This will be achieved through training workshops to develop knowledge about ABS rules and procedures, community protocols and traditional registries, including ABS agreement negotiation and the monitoring of bioprospecting projects as significant checkpoints; in addition, workshops will serve as a forum for stakeholder interaction. By project end, 200 staff from the various institutions and sectors involved will be trained to consolidate ABS knowledge. As determined during the PPG, workshops will be held both at MINAMB headquarters and at the venues selected by the Chubut province in order to ensure the highest possible level of local stakeholder participation. In addition, the ABS capacity development scorecard was used during the PPG, and it will be used at least once more during the project to assess changes in institutional capacities associated with ABS. It will be important to hold a general workshop at the end of the project to facilitate sharing the information produced by the project in relation to ABS and for the sustainability of all project outputs, including the application of all ABS tools developed by the project by the various institutions and stakeholders involved.

***Output 1.4: Training programme and modules on bioprospecting, value chains, marketing, business planning, codes of conduct, and research procedures community protocols/ traditional knowledge registries developed and made available to relevant federal and state institutions.***

86. The project will allow the design of a training program with modules on bioprospecting, ABS value chains, marketing, codes of conduct, and scientific procedures with community protocols for implementation by the federal institutions (e.g., MINAMB, COFEMA, CONICET, and INAI) involved in delivering training and raising awareness among other agencies and stakeholders with access rights to genetic resources, such as provincial authorities and research and development institutions. Workshops and sessions will be organized promoting knowledge on these matters and enabling all stakeholders to follow up on ABS regulations.

87. Additionally, a registry for access to traditional knowledge and conduct protocols or shared specific best practices will be created and used as the basis for the specification of PIC and MAT requirements among users and providers of traditional knowledge and biological resources. This registry will be available to relevant federal and government institutions as a tool for genetic resource management. MINAMB will be responsible for consolidating this registry in cooperation with the various provincial enforcement agencies and COFEMA.

***88. Output 1.5: Integrated national information system for ABS projects on genetic resources and traditional knowledge linked to designated checkpoints.***

89. The project will allow MINAMB to develop a National Integrated Information System (NIIS) for ABS Projects on genetic resources and related traditional knowledge, which will be linked to designated checkpoints. This system standardizes information pertaining to ABS projects at a national level to promote control of the use of genetic resources, actively interacting with the provinces, which will have access to the NIIS through their enforcement authorities and who will be able to enter and use information as needed. This system will interface with other national information systems related to biodiversity, such as the National System of Biological Data (SNDB) and the National System of Genomic Data (SNDG) of the Ministry of Science and Technology, among others. It will also interface directly with the Registry for Access to Traditional Knowledge for the purpose of consolidating integrated standardized information on ABS. The project will help design guidelines for checkpoints that gather information related to PIC, the source of genetic resources, and the use of genetic resources.

***Output 1.6: Campaign to raise awareness about the ABS law, the CBD, the Nagoya Protocol, and the scientific, technological, and socioeconomic benefits targeting researchers, local communities / indigenous peoples, industry, and relevant stakeholders.***

90. To encourage dissemination of information and raise awareness about the ABS regulatory framework, the Nagoya Protocol and the scientific, technological, and socioeconomic benefits involving researchers, local communities/indigenous peoples, industry and stakeholders, campaigns will be organized addressing these issues with varying levels of complexity. Raising awareness about ABS will be achieved through the use of materials such as fact sheets, posters, brochures, and audiovisual presentations at events, meetings, and workshops with the stakeholders. ABS issues will also be discussed in relevant forums, such as scientific congresses on ABS and biodiversity, events such as fairs to promote the use of biodiversity products, activities developed by relevant institutions involved in ABS enforcement (provincial authorities), biotechnology development congresses, and other related events. Similarly, MINAMB and the Undersecretariat for the Management and Coordination of University Policies of the Ministry of Education is building the Universities and Biodiversity Network (RedUniBio) in order to coordinate biodiversity management needs with the development and dissemination of information. In this context, national universities were involved in the creation of the National Biodiversity Strategy, and they are targeted by this project through the planned awareness-raising campaign.

***Output 1.7: Knowledge, attitudes, and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities / indigenous peoples, industry, and relevant stakeholders) that may use or benefit from current or emerging ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD, and the Nagoya Protocol.***

91. During the first months of the first project year, KAP assessment surveys will be designed to collect information about the level of awareness about ABS, the CBD, and the Nagoya Protocol targeting specific groups (e.g., researchers, local communities, indigenous peoples, and the industry). Structured and semi-structured surveys will serve to establish comparisons among the various stakeholders about their level of awareness of ABS, the CBD, and the Nagoya Protocol and how it changes over time. The surveys will be distributed to the stakeholders within the context of the CONADIBIO, more specifically to the Subcommittee on Genetic Resources, which include the provinces, MinCyT, CONICET, INTA, SENASA, INASE, and INAI, among others. Surveys will be conducted with local communities and indigenous peoples in the Chubut province during local meetings. Surveys will also be sent out to companies involved in technology development and that have an interest in the use of genetic resources; the Confederation of Medium Enterprises (*Cámara de la Mediana Empresa*; CAME) will be involved to promote the participation of the private sector. These surveys will reveal the variety of stakeholders involved in potential uses or benefits of ABS transactions. KAP assessment surveys to assess enhanced awareness about national ABS law, the CBD, and the Nagoya Protocol will complement project training and information dissemination actions (Outputs 1.4, 1.5, and 1.6).

**Outcome 2: Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population.**

92. The GEF investment will promote the conservation of guanaco in Chubut province by mainstreaming principles for their conservation and sustainable use into production practices. This will be achieved by contributing to the reduction of illegal hunting of guanacos in Chubut province (between 20% and 25%) and through the implementation of management tools for sustainable animal herding and shearing process, as well as sanitary management, which will be strategically used in the production landscape in order to improve the habitat of the guanacos (e.g., enhancing natural grasses and shrub vegetation) while improving the quality of life of the local communities.

93. The outcomes mentioned previously will be achieved by strengthening the Province Guanaco Management Plan and the National Guanaco Management Plan. To facilitate the mainstreaming of biodiversity principles into the guanaco production landscape, local communities and indigenous peoples located within the production areas of the Chubut province will be trained in biodiversity conservation principles.

***Output 2.1: National and provincial management plans for the conservation and sustainable use of guanacos between 2013 and 2018 strengthened.***

94. The Provincial Guanaco Management Plan and the National Guanaco Management Plan will be strengthened through: a) review of the national and provincial management plans and inclusion of strategic territorial management (STM) and territorial management (TM) principles together with training on STM and TM; b) updates to the National Guanaco Management Plan using the tools from the previous activity, including contributions from CONICET experts; c) regional workshops in the Chubut province (coastal, plain, and mountain regions) to disseminate information and raise awareness about management plan activities; d) national meetings to promote adaptive management as part of the management plan implementation; and e) strengthening monitoring and control mechanisms (patrolling, means of enforcement, and reporting of infractions and setting penalties) to reduce illegal hunting activities and other threats to guanacos. The project will promote the participatory inclusion of STM and TM in both the provincial and national plans through training sessions and consultation with experts to: a) establish links between the guanaco management plans and territorial management plans at the local, provincial, and national levels; b) establish multi-scale coordination mechanisms between national-, provincial-, and local-level conservation and development initiatives with the guanaco management plans; c) develop tools to effectively involve local and provincial level stakeholders in guanaco management plan implementation; and d) develop a proposal for regulatory and institutional reforms for the implementation of the management plans.

95. The content and the scope of the updated management plans will be shared in the Chubut province through workshops held in the various regions. Meetings will be held with multiple local stakeholders to exchange information and experiences with regard to management plan implementation and adaptive management strategies. Finally, technical capacities will be strengthened to optimize field procedures related to guanaco conservation and its sustainable use.

***Output 2.2: Management tools protocol for the shearing and herding of guanacos improves the quality of life for local communities and contributes to the conservation of guanacos and their habitat.***

96. Animal management tools will be implemented for the conservation of guanacos and their habitat, while improving the quality of life for local communities. The management tools to be implemented will be identified during the early stages of project implementation, considering the needs of local farmers in the Chubut province and input provided by the group of experts of the Directorate of Fauna of Chubut, INTA regional staff, research institutions such as CENPAT, and the National Wildlife Directorate. These may include tools for animal handling, low-impact herding techniques, optimized shearing process, sanitary management, and animal release, among others.

97. Efforts will focus on developing low-impact animal herding and shearing techniques aimed at raising awareness and training local stakeholders in protocols to minimize the negative impacts on the animals and optimizing their use by local communities. Training and dissemination workshops will be held targeting local communities and indigenous peoples to foster techniques and knowledge that improve animal-herding and shearing management capacities to ensure standards are in line with biodiversity conservation. In addition, workshops will be held based on provincial needs for local capacity-building to mainstream biodiversity principles into production management systems.

***Output 2.3: Survey protocol for the study of the sanitary status of the guanaco population in Chubut province contributes to its conservation.***

98. The Provincial Guanaco Management Plan was developed in 2012; however, weaknesses exist that reduce the capacity for action. One of these is the lack of a guanaco survey protocol to study the sanitary status of the guanaco population in the Chubut province. To overcome this limitation, the project will allow the development of a standardized survey protocol to study the sanitary condition of individuals and to assess the implications of potential sanitary issues for conservation their and sustainable use. The main sanitary conditions affecting guanaco will be assessed to provide the technical basis to help determine which tests should be included in the

protocol, as well as the appropriate techniques to perform them. Existing capacities and local practices and uses for handling animals will be taken into account in order to develop a protocol that is in line with local sanitary standards, and local capacities and knowledge. To this end, the project will establish close collaborations with SENASA and INTA, as well as with Chubut provincial authorities.

**Outcome 3: Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits.**

99. This component will facilitate the development and testing of an anti-diarrheal product based on guanaco VHH nano-antibodies, which take into account PIC, MAT, and fair and equitable sharing of benefits, while at the same time contributing the conservation of this species. Through this component, INTA (user) will apply for access to the genetic resources of wild guanacos and negotiate monetary and non-monetary benefits with government representatives of the Chubut province (provider).

100. The following studies will be completed through this component in order to develop an anti-diarrheal product: a) comparison of structural and biochemical properties of VHH derived from guanacos vs. those obtained from llamas using rotavirus and norovirus as model antigens; b) pre-clinical testing using VHH expressed in *baculovirus* or *Escherichia coli* (*E. coli*) to supplement the milk diet as a preventive strategy for RVA and/or Norovirus diarrhea; and c) development of an optimal combination protocol of RVA and/or Norovirus VHHs tested to develop an anti-diarrheal product. By project end, the milk supplemented with the 3B2 and 2KD1 will constitute a treatment against the RVA-induced diarrhea and an anti-diarrheal product based on VHHs as a treatment to prevent diarrhea caused by rotavirus and/or norovirus will be available.

***Output 3.1: Monetary and non-monetary benefits derived from the use of genetic resources and their derivatives of guanacos are agreed to by INTA and government representatives of the Chubut province.***

101. The formal and legal instruments for the negotiation of monetary and non-monetary benefits derived from the use of genetic resources of guanacos and their derivatives provided by the Chubut province will be consolidated based on INTA's scientific research and recommendations and in line with the Nagoya Protocol. These documents will be the foundation for future negotiations at the provincial level and, due to their exemplary nature in relation to ABS and MAT, will also be used at the national level as well as in other provincial jurisdictions that need to update their regulations for ABS and MAT. The documents will be developed in collaboration with legal experts from INTA and the Chubut province. The project will provide the resources to ensure that the documents are drafted with contributions from expert legal consultants, while building capacities in the Chubut province with regard to ABS and MAT. The benefits derived from this output will be the basis for improving guanaco conservation activities in the Chubut province. All information generated through this output will be made available for ABS Projects through the NIIS (Output 1.5).

***Output 3.2: Structural, biochemical, and functional properties of VHH nano-antibodies (nAb) from guanacos identified and compared with the properties of llamas.***

102. Building on reports published in 1989 regarding new antibodies in dromedaries, and later in other camelid species, INTA has taken the initiative to start the study of VHH nano-antibodies of single-chain in llamas and their use in preventing RVA-induced diarrhea. Biotechnological progress in this area was achieved that ultimately resulted in highly significant technological developments. The research showed that all camelids have heavy-chain antibodies and are a potential source of VHH libraries; however, wild guanacos have never been used for this purpose. Through GEF investment, the structural, biochemical, and functional properties of guanaco VHH nano-antibodies will be studied. INTA and Algenex will lead the research process; INTA will compare the properties of guanaco VHH nano-antibodies with those of llamas.

***Output 3.3: Pre-clinical studies using VHH expressed in baculovirus or E. coli to supplement the milk diet as a preventive strategy for diarrhea caused by RVA and/or norovirus.***

103. The project will generate the necessary information for developing a product from guanacos to be used by consumers within the framework of the Nagoya Protocol (i.e., from the genetic resource to the final user through



previously agreed-upon benefit-sharing mechanisms). Pre-clinical studies using VHH expressed in baculovirus or *E. coli* to supplement a milk diet will be developed in collaboration with participating institutions (Vrije Universiteit Brussel and ALGENEX) that have already worked with llama VHH; this will be a good opportunity to develop the new product from guanacos utilizing the support of the GEF. The Vrije Universiteit Brussel will collaborate with INTA to provide technical and laboratory support (technology and knowledge transfer) for developing and testing this new alternative treatment with VHH for acute gastroenteritis. Additionally, ALGENEX will provide support for the development of transgenic mice that express anti-rotavirus VHH in their milk, and it will cover all costs associated with rotavirus VHH protection patents in Spain.

## 2.5. Key indicators, risks, and assumptions

104. The project's indicators are provided in Table 3. Detailed information on project indicators is included in Section 3: Results Framework of this Project Document. The risks that might prevent the project from being achieved are presented in Table 4.

Table 3 – Project impact indicators.

Objective/outcome	Indicator	Target (3 years)
<b>Objective:</b> To contribute to the implementation of the Nagoya Protocol by strengthening the national access and benefit-sharing (ABS) framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal treatment.	Ratification of the Nagoya Protocol by the Chamber of Deputies Argentina	- The Nagoya Protocol is ratified
	Number of new administrative rules of ABS at the national and provincial levels	- National rules: from zero (0) to one (1): Updated Resolution 226/10 - Provincial rules: from zero (0) to having provincial legislation regarding ABS, PIC, and MAT
	Monetary and non-monetary benefits received by the national and provincial governments, the private sector, and local communities derived from commercialization of guanaco genetic resources	- Monetary*: a) National Government: \$X; b) Provincial Government: \$X; c) Private sector: \$X; d) Local communities: \$X - Non-monetary*: a) National Government: VHH library for Guanacos; training related to genetic resources; access to scientific information; technology transfer b) Provincial Government: training related to genetic resources; access to scientific information c) Private sector: VHH library for Guanacos; training related to genetic resources; access to scientific information d) Local communities: training related to genetic resources; social recognition; access to scientific information relevant to conservation and sustainable use of guanacos

Objective/outcome	Indicator	Target (3 years)
		*Targets will be determined or updated when the anti-diarrheal product is developed and in accordance with national and provincial ABS law.
<b>Outcome1:</b> Strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol.	National regulations for the protection of traditional knowledge	– One (1) National Resolution for the protection of traditional knowledge
	Capacity of MINAMB and the environmental authority of Chubut Province on access to genetic resources and benefit-sharing measured with UNDP’s ABS Capacity Development Scorecard	– MINAMB: increase from 50% (33/66) to 85% (56/66) – Environmental authority of Chubut Province: increase from 23% (15/66) to 58% (38/66)
	Percentage of population of researchers, local communities, indigenous peoples, and relevant industry targeted by the campaign is aware of the national law and CBD and Nagoya Protocol provisions related to ABS and traditional knowledge	– Up to 60%. This target will be reviewed as soon as the baseline has been estimated.
<b>Outcome 2:</b> Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population	Change in the number of infringements related to illegal hunting in productive landscapes of the province of Chubut	– From 25 infringements / 81 guanacos confiscated/killed to 19 infringements / 61 guanacos confiscated/killed (reduction by 25%)
	Number of guanacos in the province of Chubut	– Number of guanacos remain stable or increases: ≥ 200,000 individuals (baseline size of population based on science-based estimates; baseline will be confirmed during the first 6 months of project implementation)
	Capacity of local communities who reside in the production landscapes of the Chubut province to mainstream principles for the conservation and sustainable use of guanacos into production practices as measured by the UNDP's capacity development scorecard	– Increase form 49% (21/43) to 70% (30/43)

Objective/outcome	Indicator	Target (3 years)
<b>Outcome 3.</b> Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits.	Number of ABS agreements signed between INTA and the Province of Chubut.	- Increase from zero (0) to one (1)
	Number of products derived from guanaco genetic resources	- Increase from zero (0) to one (1): Anti-diarrheal product based on VHH as a treatment to prevent diarrhea caused by rotavirus and/or norovirus (model antigens)
	Number of technology transfer agreements signed between INTA and Vrije Universiteit Brussel (VUB) within the framework of research on guanaco genetic resources	- Increase from zero (0) to one (1): Transfer of technology (hardware, software, and know-how) from the VUB to INTA

Table 14 – Project risks and risk mitigation strategies.

Risk	Rank	Mitigation strategy
ABS is not a priority in the political agenda of national and provincial authorities	Low	To mitigate this risk, the project will highlight the potential benefits of the Nagoya Protocol and implementing ABS (including monetary and non-monetary benefits derived from the use of genetic resources) as a strategy to foster the development of science and technology in Argentina. This will include the development of activities to raise awareness among decision-makers about ABS, the CBD, and the Nagoya Protocol. Additionally, the project will provide training related to ABS (e.g., processing access applications, negotiating ABS agreements, and monitoring and tracking to ensure compliance) and facilitate the development of tools (e.g., an integrated national information system on genetic resources and traditional knowledge, protocols for the conservation/management of guanacos) that will strengthen their roles while maintaining their commitment to ABS and the project. Additionally, national and provincial authorities will actively participate in the design and implementation of the project, will serve as members of the project's Steering Committee, and will be invited to participate in the project's Scientific Advisory Board. The project will maintain continuous and close communication with all national and provincial authorities associated with biodiversity conservation and genetic resources in order to maintain a fluid dialogue.
Changes in local, provincial or national government authorities might lead to a change in ABS policies	Medium /Low	To minimize this risk, the project will use various resources from the UNDP office in Argentina (e.g., project's Steering Committee, lessons learned and knowledge transfer procedures, field visits, etc.) to keep the various members of the existing and future local, provincial, or national governments up-to-date on the progress, outcomes, and outputs to maintain their interest in the project and emphasize its social and environmental benefits. In addition, the project will develop awareness-raising and information dissemination activities to enhance local knowledge about ABS and ensure the participation of all institutions and organizations identified as key stakeholders, including

Risk	Rank	Mitigation strategy
		local, provincial, and national government authorities.
Local communities, indigenous people and stakeholders are not fully committed	Low/Medium	The project will coordinate efforts to ensure that the awareness-raising activities in ABS integrate key stakeholders. The strengthening and the adequacy of ABS-related norms (e.g., PIC, MAT, sustainable biodiversity, and protection of traditional knowledge) will further contribute to the involvement of all stakeholders. Additionally, the project will develop a stakeholder participation plan to ensure that local communities, indigenous people, and other stakeholders participate in all stages of the project (design, planning, implementation, and evaluation) in order to promote their commitment to the project and ABS.
VHHs derived from guanacos do not have more beneficial characteristics than other alternatives	Low	In case that the VHH anti-nanobodies obtained from guanacos have similar properties to the ones obtained from domestic llamas, they will still constitute an alternative treatment for acute gastroenteritis that can replace conventional and monoclonal antibodies. The project will establish solid cooperation relations with the international research community (e.g., Dr. Serge Muyldermans, Department of Structural Biology, Vrije Universiteit Brussel; Dr. Linda Saif, Ohio State University; and Dr. Lijuan Yuan, VA-MD Regional College of Veterinary Medicine, Virginia Tech) to ensure the quality of project investigations related to VHH anti-nanobodies obtained from guanacos.
Climate change	Low	As part of the strengthening of the National and Provincial Guanaco Management Plans, short- and long-term climate change mitigation strategies will be defined to increase the resilience of guanaco populations to climate change and variability.
Utilization of genetic resources and the province of Chubut may refuse to deliver genetic material to INTA	Medium/Low	<p>The project involves the collection and commercial utilization of genetic resources from the Guanaco. These resources will be collected and used in accordance with prior informed consent and mutually agreed terms principles of Resolution No. 226/2010 on access to genetic resources and benefit-sharing. The resolution covers all genetic material as defined in Article 2 of the Convention on Biological Diversity (CBD), regardless of the intended use; including scientific, industrial or trade purposes. The resolution provides for the need to negotiate and to establish mutually agreed terms on the conditions of use and benefit-sharing derived from access to genetic resources as set forth in the CBD (Article 15.4) and the Nagoya Protocol (Article 5). These shall be agreed upon with the competent national or provincial authority, depending on the jurisdiction.</p> <p>The project will also support the development of an ABS framework for the Chubut province that reflect the minimum standards established through the Federal Resolution 226/2010 and the Nagoya Protocol, with the objective of facilitating access to the genetic resources of guanacos and benefit-sharing. Local communities will receive monetary and non-monetary benefits negotiated between the Province of Chubut and INTA and under the provisions of the Chubut ABS regulation developed by the project. The Province of Chubut will also have a guarantee to ensure the delivery of genetic resources to INTA and plans for benefit-sharing during the duration of the project.</p>
Changes to natural resources (i.e., Guanaco) that may	Medium/Low	The relevant activities of the project that contribute to the conservation and sustainable use of the Guanaco will be implemented in accordance with the national guanaco management plan. The plan will be used as a guide for

<b>Risk</b>	<b>Rank</b>	<b>Mitigation strategy</b>
have adverse impacts on habitats, ecosystems, and/or livelihoods		<p>defining the scope of use of this species promoted by project activities. In addition, Resolutions No. 220/98 of the Secretary of Natural Resources and Sustainable Development of the Nation (SRNyDS) and No. 82/03 of SAyDS establish management guidelines governing the export activities, interprovincial transit, and federal marketing of products and byproducts of guanaco. Only the use and marketing of guanaco fiber from live animals is allowed. In addition, the Guanaco is listed in Appendix II of CITES. Appendix II includes species that although currently not threatened with extinction, may become so without trade controls.</p> <p>Regarding protected areas, and considering the natural distribution and movement of the wild guanacos, it is possible that these animals will be present on protected areas.</p>

## 2.6. Financial modality

105. The financial support provided by GEF resources will consist of a grant to cover the incremental costs of the proposed activities. Therefore, GEF resources will be mainly directed toward technical assistance.

106. The project will be executed under National Implementation (NIM-modality), according to the standards and regulations for UNDP cooperation in Argentina. The costs of the incremental activities that are required to contribute to global benefits that will be financed by GEF are \$908,904 USD. A summary of the project's budget is presented in Table 5.

Table 5 - Total project budget.

<b>Outcome</b>	<b>Budget</b>	<b>Percentage of total budget</b>
<b>Outcome 1:</b> Strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol.	313,139	34.5
<b>Outcome 2:</b> Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population	100,000	11.0
<b>Outcome 3:</b> Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits.	413,138	45.5
Management costs	82,627	9.0
<b>TOTAL</b>	<b>908,904</b>	<b>100.0</b>

## 2.7. Cost-effectiveness

107. Within the GEF scenario, the project considers cost-effective elements to achieve the objective proposed. First, it builds on previous research on the development of genetic products working closely with the private sector, as well as on scientific progress in the use of genetic resources from llamas, which will reduce the investment required to promote the use of guanaco genetic resources and benefit-sharing through an optimized value chain. The development of an anti-diarrheal product through this project will consolidate the value chain and the sharing of monetary and non-monetary benefits derived from its use. Second, the project promotes a joint public-private initiative, which allows working in a coordinated and realistic manner for the development of new guidelines (MAT, PIC, and ABS), as well as capacity-building in national and provincial institutions, including the transfer of technology and knowledge with relation to ABS, which would have not happened in the short term without this GEF investment. Through clear agreements and updated and improved regulations, together with the

dissemination of the Nagoya Protocol at the local, provincial, and national levels, the project will encourage further private investment in bioprospecting and will generate future benefits for local communities and ecosystems. Third, by strengthening the existing Provincial Guanaco Management Plan, the project will create an incentive for Chubut province authorities to make the necessary arrangements to derive monetary and non-monetary benefits from the use of guanaco genetic resources in the short term, thus providing new economic and environmental opportunities for local communities associated with the use and conservation of guanacos. This experience will also provide lessons learned and best practices for guanaco population management and genetic resource use, which may be replicated by other provinces with guanaco populations and will prove to be cost-effective in both the medium and long term.

108. In the “business as usual” scenario, the prevailing environment will be characterized by: a) slow progress in the development of an ABS regulatory framework both at the national and provincial levels, as well as low capacity among public officials to develop appropriate and effective procedures for permitting, licensing and managing agreements related to ABS; b) guanaco management plans without the tools for mainstreaming guanaco conservation and its sustainable use into production practices; c) lack of incentives (monetary and non-monetary benefits) from the use of guanaco genetic products and their derivatives that will encourage local communities and producers to adopt biodiversity-friendly practices that will contribute to the conservation of guanacos and their habitat; and d) presence of a weak public-private institutional framework that allows only slow scientific development and discourages investment for the development of genetic products and their derivatives.

## **2.8. Sustainability**

### *Environmental sustainability*

109. The basis for the environmental sustainability of the project’s outcomes at a provincial level lies mainly on strengthening the Provincial Guanaco Management Plan, which will provide improved monitoring and control mechanisms to reduce illegal hunting activities and other threats (habitat degradation, sheep overpopulation, overgrazing, etc.), as well as animal management tools for the sustainable shearing and herding and overall improvement of the health condition of the guanaco population in the Chubut province. Additionally, a campaign will be conducted to improve long-term environmental sustainability by raising awareness of the status of guanacos among farmers and better inform them about local environmental issues and their impacts. This will lead to the adoption of biodiversity-friendly production practices within highly fragile ecosystems in the Argentinian Patagonia region that are prone to degradation, including mixed sheep-guanaco sustainable management. An important aspect of the management plans and capacity development activities is being able to adjust livestock numbers to field capacity, considering guanacos’ ecological needs. Once this is achieved, a natural vegetation cover and substrate rehabilitation process will begin with clear benefits for the natural pastures on which guanacos depend, and for increasing vegetation species richness. In addition, adjusting livestock numbers may increase guanaco abundance, which will contribute to the sustainable use of their fiber. Farmers will be trained in methods for the biodiversity-friendly herding and shearing of live guanacos. They will also learn about handling and best practice protocols for guanaco management, giving priority to the safety of the animals. By considering guanacos as a potential economic resource complementing sheep farming, local communities and producers will change their negative views on this species as they will consider guanacos to be an economic resource that can be managed sustainably, rather than as a barrier to their production practices. This will contribute to reducing illegal hunting with clear long-term benefits for wild guanaco populations. Finally, the strengthening of the guanaco management plans and the development of an ABS regulatory framework at the provincial level will also facilitate the flow of resources to achieve results for environmental improvement in general.

### *Social sustainability*

110. Social sustainability in the project will be achieved by training farmers for the implementation of guanaco management plans and involving them in the various phases of the project. This training activity will raise awareness of the benefits the farmers can derive from sustainable guanaco management; it will also facilitate mainstreaming conservation into production initiatives during and after the timespan of the project. Furthermore,

local communities and indigenous peoples will be trained in the ABS scheme and made aware of their rights to the knowledge related to genetic resources as well as the monetary and non-monetary benefits derived from their use, with particular focus on the genetic resources of the guanaco. Additionally, there will be training sessions for other stakeholders, such as private businesses and scientists, to generate awareness of the benefits associated with the development of new laws and policies regarding ABS. The project's social sustainability will also be achieved through the creation of forums for the exchange of information and knowledge such as workshops and training sessions that will be carried out during the development of the project. These spaces will foster communication among social stakeholders and strengthen relationships as well as the inclusion of ABS and biodiversity principles. INTA, for its part, will move forward with the dissemination of the knowledge generated in the project to encourage local stakeholders to join. In this sense, social sustainability at the provincial level will be based on the mainstreaming of concepts and the definition of specific actions related to the project within the ABS regulatory framework and the Provincial Guanaco Management Plan, as well as on the equitable sharing of monetary and non-monetary benefits derived from the use of guanaco genetic resources, which will be agreed to by relevant stakeholders once an anti-diarrheal product is developed. In the short and long term, these actions will help create awareness among stakeholders and raise the issue to an international level in terms of its significance and the benefits associated with the creation of ABS regulations and their implementation in the province, and with the strengthening of the Provincial Guanaco Management Plan.

#### *Institutional sustainability*

111. Institutional sustainability relates to the improved capacity of the organizations associated with access to genetic resources and the equitable and fair distribution of benefits (governmental/administrative entities with expertise in the management of this issue, public scientific research organizations that develop biotechnological activities regarding Argentinian genetic resources, and local and indigenous communities that possess traditional knowledge about the use of genetic resource and/or have rights to them) to effectively manage access to genetic resources and the distribution of benefits. The updating and development of the national regulatory framework and legislation in the Chubut province with regard to genetic resources and the distribution of benefits depends on the will of national- and provincial-level decision makers. To ensure the long-term commitment of the decision makers for the development and updating of these legal instruments, the project will generate awareness of the benefit that adopting such legislation for access to genetic resources and benefit distribution will provide to the country, as well as awareness of the need to adopt legislation regarding access to genetic resources and benefit distribution that is aligned with the Nagoya Protocol, which will become mandatory throughout the country once it is ratified. In addition, from the organizational standpoint, the project's sustainability will be ensured by building capacities regarding genetic resources access and benefit sharing in favor of three local stakeholders: national (MINAMB and INTA) and provincial (Chubut province) authorities working on the subject, local and indigenous communities from various provinces, and the scientific staff working in public biotechnology research institutions. The project's institutional sustainability will also be achieved through the development of codes of conduct and best practices tailored to the needs of each sector of scientific and research activity, as these will be useful as a model of behavior to be followed by local stakeholders (especially research institutions) during access to genetic resources and benefit sharing. Similarly, the project will help develop benefit sharing agreement models, material transfer agreements (MTAs) and PIC, as this progress will promote effective management of genetic resources access by the various stakeholders. Finally, the development of a National Integrated Information System for ABS Projects on genetic resources and traditional knowledge linked to designated checkpoints to collect useful information on contacts, laws, codes of conduct and best practices, and agreement models and MTAs related to genetic resources access and benefit sharing will also strengthen the project's institutional sustainability.

#### *Financial sustainability*

112. The project's financial sustainability will be ensured by generating additional income for biodiversity conservation through the development of marketable products based on guanaco genetic resources. The development of tools for monetary and non-monetary benefits (i.e., training, experience exchange, etc.) is



essential to support the principles of sustainable use of biodiversity in this project. The collaborative development of ABS, PIC, and MAT instruments between the Chubut province, INTA, and ALGENEX Spain will provide the framework for equitable sharing of benefits, including financial benefits. Additionally, the adoption of sustainable management practices will allow producers and local communities to increase their income from the use of wild guanacos, expanding the range of products (e.g., fibers and fabrics) they can supply with the support of the provincial government.

## **2.9. Replicability**

*113.* This project is not only innovative but novel as this is the first time that genetic resources of wild Guanacos will be accessed in order to develop an anti-diarrheal product. Furthermore, this project is also innovative in Argentina as it is the first time that this country has the opportunity to develop an ABS framework at a provincial level. Further innovation comes from the project's role demonstrating the link between scientists and decision makers, which will serve as a model for other countries that seek to build a bio-knowledge society for sustainable human development.

*114.* The potential for duplicating the results of this project in other provinces at a national level is very high. Thus, although the project subscribes to national regulations and institutions as well as those of the Chubut province, it can be replicated in the remaining 22 provinces of the country, as well as Buenos Aires. Replicability is of utmost importance, particularly if we consider that only a few provinces have regulations on genetic resources access and benefit sharing—Jujuy, Misiones, La Rioja, San Luis, La Pampa, Neuquén, Río Negro, and Tierra del Fuego have passed laws on the subject—and that, even in those cases, the laws are sometimes outdated, incomplete, and ineffective. It would therefore be highly beneficial if the results achieved by the project in the Chubut province could be replicated in other provinces. This is the case here, and based on the expected results for the project, all provinces and Buenos Aires will benefit from the lessons learned during project implementation in the Chubut province. Specifically, non-project provinces will be able to use the results of the project as they will have access to the information generated in the timespan of the project. For example, they will have access to the codes of conduct and best practices developed, the contact information for the main stakeholders in the subject, and information on best practices for guanaco management and conservation. Access to this information is expected to occur through a digital platform (websites) that will be maintained and updated by MINAMB (also one of the expected outputs of the project).

*115.* The project has the potential for replication internationally, particularly in Latin American countries with similar challenges and opportunities in terms of ABS regulations, including fair and equitable benefit sharing. Knowledge transfer at an international level will occur through various media, such as: a) links to other projects for similar experiences using communication media, and b) dissemination of the results in groups working on the subject in neighboring countries, by electronic means. Last, the project will use the tools made available by UNDP and GEF (including information networks, forums, documents, and publications) for best practices and lessons learned, so that these can be used for designing and implementing similar projects across the region.

*116.* The lessons learned from the development of an ABS framework in the Chubut province will be essential for the design and delivery of similar plans for the other provinces. Relations between key national stakeholders, such as INTA, MINAMB and the Chubut province, will go beyond the timespan of this project, providing sustainability in the efforts and lessons, with an expected scaled-up potential for INTA, MINAMB and other provinces.

## **3. STRATEGIC RESULTS FRAMEWORK AND GEF INCREMENT**



### 3.1. Incremental cost analysis and project benefits

#### *Global and national benefits*

117. The project objective is to contribute to the implementation of the Nagoya Protocol by strengthening the national ABS framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal treatment. This will be achieved through three interrelated outputs that will: a) promote the use of genetic resources and related traditional knowledge; b) help strengthen the opportunities for fair and equitable sharing of the benefits arising from their use; and c) generate incentives for biodiversity conservation and sustainable use of its components, enhancing the contribution of biodiversity to sustainable development and human well-being at a global, national, and local levels. These benefits include: a) ratification of the Nagoya Protocol by national authorities, as well as strengthening of the regulatory national framework for ABS with emphasis on traditional knowledge associated with genetic resources and increasing institutional capacity for implementing the protocol at a national level; b) improving guanaco conservation through the implementation of management tools for guanaco shearing and herding activities, in addition to the strengthening of National and Provincial Guanaco Management Plans aimed at reducing threats to guanacos ; and c) development of a commercial product through research of guanaco genetic resources, as well as the generation of legal elements (MAT and PIC) for fair and equitable sharing of benefits to promote the conservation and sustainable use of the guanaco species. All this is within the context of a strategy to promote participation and awareness and to train local stakeholder groups and decision makers at a national, provincial, and local levels from the production, scientific, and government sectors, to help develop models for biodiversity sustainable use that are in line with the Nagoya Protocol based on CBD.

118. This project will contribute to the conservation and sustainable management of the Argentinean guanaco population, which according to the IUCN is estimated to between 466,000 and 520,000 individuals. The project will also contribute to the conservation of critical guanaco habitat consisting of arid and semi-arid shrublands and grasslands that include species of *Acantholippia*, *Benthamiella*, *Nassauvia*, and *Verbena* genera, two endemic species of the genus *Prosopis*, one species of *Larrea* and species of the genera *Lycium* and *Schinus*. Additionally, the guanaco's natural habitat is home to a variety of animals including the Darwin's iguana (*Diplolaemus darwini*), Patagonian gecko (*Homonata darwini*), lesser rhea (*Pterocnemia pennata*), Patagonian tinamou (*Tinamotis ingoufi*), grey eagle-buzzard (*Geranoaetus melanoleucus*), peregrine falcon (*Falco peregrinus*), band-winged nightjar (*Caprimulgus longirostris*), lesser canastero (*Asthenes pyrrholeuca*), Patagonia mockingbird (*Mimus patagonicus*), Patagonian yellow-finch (*Sicalis lebruni*), mara (*Dolichotis patagonum*), chinchilla (*Lagidium viscacia*), Patagonian weasel (*Lyncodon patagonicus*), Patagonian opossum (*Lestodelphis halli*), Patagonian skunk (*Conepatus humboldti*), puma (*Felis concolor*), and the South American grey fox (*Dusicyon griseus*). These and other species of global significance will benefit from the project.

#### *Baseline scenario*

119. In the business-as-usual scenario, locally significant incentives will be developed; however, they will not be enough to overcome the barriers for contributing to the application of the Nagoya Protocol in Argentina, since these would be independent, uncoordinated efforts in the context of a national policy for the enforcement of ABS to achieve a general approach for benefit-sharing that involves the conservation and sustainable use of genetic resources. Baseline incentives can be divided into three areas, which correspond to the three outcomes for this project. These are described below, and they include all investments that will take place during the timespan of the project (2015-2018).

120. **National ABS framework and capacity to facilitate implementation of the Nagoya Protocol.** Existing and planned investments for programs and baseline activities for the 2015-2018 period are estimated to be around USD 2,080,000. There are only a few projects and programs for modifying legal aspects of regulations, training on legal aspects of ABS, developing legal instruments, and generating policies related to ABS practices and traditional knowledge which are underway or will be during the course of this project. Only three sources of resources linked to the activities related to Component 1 are identified. The first one (\$60,000 USD) is led by MINAMB—its GTCB is part of a Subcommittee on Genetic Resources that works with the National Strategy on

Biodiversity in collaboration with several national institutions. The second contribution (\$20,000 USD) is from the Chubut province through the Wildlife Directorate, promoting adjustments in existing legislation. The third (\$2,000,000 USD) considers aspects related to traditional knowledge, native species, biodiversity management, and ABS in the context of a national forum through the OBio led by MINAMB.

**121. Conservation and sustainable use of genetic resources derived from the guanaco population.** Existing and planned investments for programs and baseline activities for this output are estimated at around \$1,131,070 USD. MINAMB actions will mostly focus on developing the National Guanaco Management Plan created in 2006. This will include the efforts to continue with this management line, which will be undertaken by the working group of the National Directorate of Fauna through the Guanaco Project (\$30,000 USD). The Chubut province will in turn allocate resources (\$20,000 USD) to continue with the implementation of the Provincial Guanaco Management Plan and the monitoring and control activities to attain the objectives established in the provincial plan. The National Agency for Science and Technology Promotion (ANPCyT) and the Ministry of Science and Technology (MinCyT), through the Fund for Sector Technology Innovation and Social Development of Camelids will invest \$802,000 USD in the development of technology innovation and improvements for the various phases of the guanaco fiber production process, including herding, penning, shearing, release, baling, dehairing, cleaning, warehousing, spinning, clothes making, and fiber marketing. In addition, ANPCyT, through the Bicentenario Technical and Scientific Research Projects (PICT) managed by CONICET, will address research topics that provide a substantial basis for camelid management. Finally, one of WCS and REPSOL YPF's projects (\$250,000 USD) is focused on research to reduce poaching through the closure of oil wastelands and monitoring efficacy in Auca Mahuida, Neuquén province, the results of which are aligned with those of the National Guanaco Management Plan and can be used as lessons learned to be replicated in the area covered by this project.

**122. Uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits.** Existing and planned investments for programs and baseline activities in this component for the 2015-2018 period are estimated to be \$393,990 USD. INTA investment has mainly focused on the research of llama nano-antibodies and fine-tuning of laboratory methodologies and researcher training activities; these will continue throughout the timespan of the project with an investment of \$27,000 USD. The ANPCyT, through the Argentinean Sector Fund (FONARSEC) developed by INTA, will strengthen research in the improvement of foodstuffs, such as milk modified with VHHs through specific molecular technologies to produce high value-added dairy products (\$247,690 USD). The CONICET funds doctoral and post-doctoral fellowships that contribute to the development of the VHH research lines promoted by INTA, and also contribute resources to support its scientific researchers; its investment for this purpose during the course of the project will amount to \$119,300 USD.

#### *GEF Alternative to generate global benefits*

**123.** In the alternative scenario with the GEF, national and provincial institutions, key stakeholder groups, and VHH research are strengthened due to the enhancement of ABS enforcement capacities and the development of products based on genetic resources, with the benefits that are proposed on the baseline. First, and as a key objective for the first output of the project, **a detailed and transparent legal framework will be developed for access to genetic resources and the fair and equitable sharing of the benefits derived from their use in Argentina.** Incremental financing will be of \$1,552,358 USD, with \$313,139 USD contributed by the GEF and \$1,239,217 USD contributed by co-financing sources (\$1,011,800 USD from MINAMB and \$227,419 USD from the Chubut province). The strategies proposed in this document (Section 2.4) will be applied to carry out the activities that will contribute to the ratification of the Nagoya Protocol in Argentina, as well as to the development of a national regulatory framework for the protection of traditional knowledge. Alongside these efforts, a quality approach to information systemization at a federal level will be taken to help implement ABS throughout the country. The main output from this first component with GEF participation will be the development of a regulatory, institutional, and individual capacities framework for the implementation of ABS in the Chubut province.

124. Through the second project output the GEF investment will **contribute to the conservation and sustainable use of genetic resources derived from the guanaco population**. This will help reduce threats to the guanaco in the Chubut province, including illegal hunting. Incremental funds planned for this output are of \$877,123 USD (\$100,000 USD from the GEF and \$777,123 USD from co-financing sources [\$252,950 USD from MINAMB, \$492,742 USD from the Chubut province, and \$31,431 USD from INTA]). This second output will be achieved through the actions of various project institutions aimed at preserving the habitat of guanacos through the contribution of specific solutions that result in a decrease in poaching and other threats, as well as the strengthening of National and Provincial Guanaco Management Plans. The alternative with the GEF is a great opportunity to collect existing knowledge on guanaco management and generate actions to make visible change. The results obtained with this alternative can then be extrapolated to various regions in Argentina to improve guanaco quality and the quality of life for local communities.

125. The third project output **will allow the development of an anti-diarrheal product based on guanaco VHH nano-antibodies, with PIC, MATs and fair and equitable sharing of benefits**. Incremental funds will be \$1,403,329 USD, with \$413,138 USD contributed by the GEF and \$990,191 USD contributed by co-financing sources (\$37,903 USD from the Chubut province, \$597,196 USD from INTA, \$35,000 USD from ALGENEX Spain, and \$320,092 USD from Vrije Universiteit Brussel). The additional funds contributed by the GEF will help establish the formal and legal instruments governing the negotiation of benefits from the utilization of the genetic resources provided by the Chubut province. These documents will be the foundation for future negotiations at a provincial level and, due to their exemplary nature in relation to ABS and MAT, will also be used at a national level, as well as in other provincial jurisdictions that need to update their regulations for ABS and MAT within their respective enforcement institutions. It will also enable INTA to carry out base research for the development of an anti-diarrheal product, including studying the properties of guanaco VHHs and VHH expression, as well as pre-clinical testing in coordination with Vrije Universiteit Brussel and ALGENEX Spain.

126. System limits: The alternative with the GEF will help develop proposals for regulatory reforms related to ABS at the national level, so these reforms will be applicable throughout Argentina. Specific training actions will be nationwide, laying the foundations for improving ABS frameworks in all the provinces. Actions on guanaco conservation and sustainable use will focus on the Chubut province, where there is an estimated guanaco population of approximately 200,000 individuals; the results will then be used as a study case and will be extrapolated to other provinces as a model of success. The project provides for the development of an anti-diarrheal product and pre-clinical testing; these will be subject to guanaco VHH viability and structural and biochemical properties. The project will last three years.

127. Summary of incremental costs: The incremental cost matrix presented hereunder summarizes the baseline costs and incremental costs of activities for each project output. The total cost of the baseline amounts to **\$3,605,060 USD**. Incremental costs of the activities required to contribute to global benefits is **\$4,216,090 USD**, out of which GEF will finance **\$908,904 USD** and the different co-financers will contribute **\$3,307,186 USD**. All project co-financers have expressed their commitment to the project through duly signed letters of endorsement. In brief, the GEF alternative amounts to a total cost of **\$7,821,150 USD** out of which GEF resources account for 11.6% (excluding PPG resources). Hereafter is a summary of the GEF Alternative.

	Baseline (USD)		Alternative		Increment (USD)	
<b>Outcome 1:</b> Strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol.	MINAMB	60,000	GEF	313,139	GEF	313,139
	Chubut Province	20,000	Cofinancing	1,239,219	Cofinancing	1,239,219
	MINAMB, SSPyPA National Biodiversity Observatory	2,000,000	SAyDS	1,011,800		
			Chubut Province	227,419		
			Baseline	2,080,000		
	<b>Subtotal Baseline</b>	<b>2,080,000</b>	<b>Subtotal Alternative</b>	<b>3,632,358</b>	<b>Subtotal Increment</b>	<b>1,552,358</b>
<b>Outcome 2:</b> Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population	MINAMB. Guanaco Project	30,000	GEF	100,000	GEF	100,000
	Chubut Province	20,000	Cofinancing	777,123	Cofinancing	777,123
	ANPCyT, MinCyT Technological Innovation Fund Social Development Sector Camelids	802,000	MINAMB	252,950		
	ANPCyT. PICT Bicentennial. CONICET	29,070	Chubut Province	492,742		
	WCS, REPSOL YPF	250,000	INTA	31,431		
			Baseline	1,131,070		
	<b>Subtotal Baseline</b>	<b>1,131,070</b>	<b>Subtotal Alternative</b>	<b>2,008,193</b>	<b>Subtotal Increment</b>	<b>877,123</b>
<b>Outcome 3:</b> Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits.	INTA	27,000	GEF	413,138	GEF	413,138
	INTA BIO Project. FONARSEC, Functional foods N03	247,690	Cofinancing	990,191	Cofinancing	990,191
	CONICET	119,300	Chubut Province	37,903		
			INTA	597,196		
			ALGENEX Spain	35,000		
			Vrije Universiteit Brussel	320,092		
			Baseline	393,990		
	<b>Subtotal Baseline</b>	<b>393,990</b>	<b>Subtotal Alternative</b>	<b>1,797,319</b>	<b>Subtotal</b>	<b>1,403,329</b>

	Baseline (USD)		Alternative		Increment (USD)	
					Increment	
Project Management	NA		GEF	82,627	GEF	82,627
			Cofinancing	300,653	Cofinancing	300,653
			MINAMB	68,186		
			INTA	86,373		
			Chubut Province	68,186		
			Vrije Universiteit Brussel	27,908		
			UNDP	50,000		
			Baseline	NA		
	<b>Subtotal Baseline</b>	<b>NA</b>	<b>Subtotal Alternative</b>	<b>383,280</b>	<b>Subtotal Increment</b>	<b>383,280</b>
<b>TOTAL</b>			Total GEF	908,904	Total GEF	908,904
			Total Cofinancing	3,307,186	Total Cofinancing	3,307,186
			Total Baseline	3,605,060		
	<b>TOTAL BASELINE</b>	<b>3,605,060</b>	<b>TOTAL ALTERNATIVE</b>	<b>7,821,150</b>	<b>TOTAL INCREMENT</b>	<b>4,216,090</b>

### 3.2. Project results framework

<b>Project:</b> Promoting the application of the Nagoya Protocol on ABS in Argentina
<b>Objective:</b> To contribute to the implementation of the Nagoya Protocol by strengthening the national access and benefit-sharing (ABS) framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal treatment.
<b>GEF Focal Area:</b> Biodiversity
<b>Focal Area Objectives:</b> BD-4: Build capacity on Access to genetic resources and Benefit Sharing (ABS).
<b>GEF Agency:</b> UNDP
<b>Implementation Partners:</b> MINAMB, INTA, and Chubut Province

	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
<b>Project Objective:</b> To contribute to the implementation of the Nagoya Protocol by strengthening the national access and benefit-sharing (ABS) framework and facilitating access to genetic resources of guanacos for the development of an anti-diarrheal treatment.	Ratification of the Nagoya Protocol by the Chamber of Deputies Argentina	- The Nagoya Protocol has not been ratified	- The Nagoya Protocol is ratified	- Official Gazette of the Republic of Argentina	- There is political will to ratify the Nagoya Protocol and update/develop ABS-related legislation at the national and provincial levels
	Number of new administrative rules of ABS at the national and provincial levels	- National rules: Zero (0) - Provincial rules: Zero (0)	- National rules: One (1): Updated Resolution 226/10 - Provincial rules: Provincial legislation regarding ABS, PIC, and MAT	- Official Gazette of the Republic of Argentina - Official Gazette of the Chubut Province - Annual report of the GTCB of the MINAMB	
	Monetary and non-monetary benefits received by the national and provincial governments, the private sector, and local communities derived from commercialization of guanaco genetic resources	- Monetary: a) National Government: \$0; b) Provincial Government: \$0; c) Private sector: \$0; d) Local communities: \$0  - Non-monetary: a) National Government: there are no non-monetary benefits; b) Provincial Government:	- Monetary*: a) National Government: \$X; b) Provincial Government: \$X; c) Private sector: \$X; d) Local communities: \$X  - Non-monetary*: VHH library for Guanacos a) National Government: VHH library for Guanacos; b) Provincial Government:	- Negotiated agreements for monetary and non-monetary benefits	- There is functional similarity between VHHs from guanacos and llamas - Products derived from guanaco genetic resources are developed - There is a market for guanaco genetic-based products

	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
		<p>there are no non-monetary benefits;</p> <p>c) Private sector: there are no non-monetary benefits;</p> <p>d) Local communities: there are no non-monetary benefits</p>	<p>to genetic resources; access to scientific information; technology transfer</p> <p>b) Provincial Government: training related to genetic resources; access to scientific information</p> <p>c) Private sector: VHH library for Guanacos; training related to genetic resources; access to scientific information</p> <p>d) Local communities: training related to genetic resources; social recognition; access to scientific information relevant to conservation and sustainable use of guanacos</p> <p>*Targets will be determined or updated when the product is developed and in accordance with national and provincial ABS law.</p>		
<b>Outcome1:</b> Strengthening the national ABS framework and building capacity to facilitate	National regulations for the protection of traditional knowledge	- None	- One (1) National Resolution for the protection of traditional knowledge	- Official gazette - Drafts of the National Resolution for the protection of traditional knowledge	- There is political will for protection of traditional knowledge within the national ABS framework

	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of Verification</b>	<b>Risks and Assumptions</b>
implementation of the Nagoya Protocol.	Capacity of MINAMB and the environmental authority of Chubut Province on access to genetic resources and benefit-sharing measured with UNDP's ABS Capacity Development Scorecard	<ul style="list-style-type: none"> <li>- MINAMB: 50% (33/66)*</li> <li>- Environmental authority of Chubut Province: 23% (15/66)*</li> </ul> <p>* Refer to Annex 8.5 for the complete analysis</p>	<ul style="list-style-type: none"> <li>- MINAMB: 85% (56/66)</li> <li>- Environmental authority of Chubut Province: 58% (38/66)</li> </ul>	<ul style="list-style-type: none"> <li>- UNDP's ABS Capacity Development Scorecard updates</li> </ul>	<ul style="list-style-type: none"> <li>- Staff apply their new knowledge and abilities in a satisfactory manner</li> <li>- There is stability in the human resources within the institution that benefits from the capacity development activities</li> </ul>
	Percentage of population of researchers, local communities, indigenous peoples, and relevant industry targeted by the campaign is aware of the national law and Convention on Biological Diversity (CBD) and Nagoya Protocol provisions related to ABS and traditional knowledge	<ul style="list-style-type: none"> <li>- X %</li> </ul> <p>(The baseline will be determined during the first six months of project implementation)</p>	<ul style="list-style-type: none"> <li>- Up to 60%. This target will be reviewed as soon as the baseline has been estimated.</li> </ul>	<ul style="list-style-type: none"> <li>- Awareness survey updates</li> </ul>	
<p><b>Outputs:</b></p> <p>1.1. Increased political support and knowledge by the Argentinean Congress related to the potential scientific, technological, and socioeconomic benefits for the country from ratification of the Nagoya Protocol</p> <p>1.2. Draft proposals for a national ABS framework includes the protection of traditional knowledge and ABS regulations and administrative procedures of the Chubut province</p> <p>1.3. 200 staff from the National or Federal Competent Authority (NCA), institutions within the Chubut province and local communities trained in ABS rules and procedures, community protocols, and traditional registries including negotiation of ABS agreements and monitoring of bioprospecting projects</p> <p>1.4. Training programme and modules on bioprospecting, value chains, marketing, business planning, codes of conduct, and research procedures community protocols/ traditional knowledge registries developed and made available to relevant federal and state institutions</p>					



	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
<p>1.5. Integrated national information system for ABS projects on genetic resources and traditional knowledge linked to designated checkpoints</p> <p>1.6. Campaign to raise awareness about the ABS law, the CBD, the Nagoya Protocol, and the scientific, technological, and socioeconomic benefits targeting researchers, local communities / indigenous peoples, industry, and relevant stakeholders</p> <p>1.7. Knowledge, attitudes, and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities / indigenous peoples, industry, and relevant stakeholders) that may use or benefit from current or emerging ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD, and the Nagoya Protocol.</p>					
<b>Outcome 2:</b> Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population	Change in the number of infringements related to illegal hunting in productive landscapes of the province of Chubut	- 25 infringements / 81 guanacos confiscated/killed	- 19 infringements / 61 guanacos confiscated/killed (reduction by 25%)	- Physical evidence in the field (pictures, notes, etc.) - Official records - Annual Report of the Department of Wildlife of the Province of Chubut	- Control and patrolling are optimal - Stable regional economic conditions
	Number of guanacos in the province of Chubut	- 200,000 individuals (size of population based on science-based estimates; baseline will be confirmed during the first 6 months of project implementation)	- $\geq 200,000$ individuals	- Field notes and reports - Annual Report of the Department of Wildlife of the Province of Chubut	- Local producers are motivated to implement biodiversity friendly practices - Sampling efforts are optimal
	Capacity of local communities who reside in the production landscapes of the Chubut province to mainstream principles for the conservation and sustainable use of guanacos into production practices as measured by the UNDP's capacity development	- 49% (21/43)*  * Refer to Annex 8.5 for the complete analysis	- 70% (30/43)	- Capacity Development Scorecard updates	- Will exist among local of local communities and indigenous peoples to mainstream principles for the conservation and sustainable use of guanacos into production practices

	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
	scorecard				
<u>Outputs:</u> 2.1. National and provincial management plans for the conservation and sustainable use of guanacos between 2013 and 2018 strengthened 2.2. Management tools protocol for the shearing and herding of guanacos improves the quality of life for local communities and contributes to the conservation of guanacos and their habitat 2.3. Survey protocol for the study of the sanitary status of the guanaco population in Chubut province contributes to its conservation					
<b>Outcome 3:</b> Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), including fair and equitable sharing of benefits.	Number of ABS agreements negotiated between INTA and the Province of Chubut.	- Zero (0)	- One (1)	- Signed ABS agreement	- Will among the parties to achieve PIC and MAT within the ABS framework - The negotiating framework is consolidated through a win-win situation
	Number of products derived from guanaco genetic resources	- Zero (0)	- One (1): Anti-diarrheal product based on VHH as a treatment to prevent diarrhea caused by rotavirus and/or norovirus (model antigens)	- Scientific publications - Research reports - Patents	- There is functional similarity between VHHs from guanacos and llamas
	Number of technology transfer agreements signed between INTA and Vrije Universiteit Brussel (VUB) within the framework of research on guanaco genetic resources	- Zero (0)	- One (1): Transfer of technology (hardware, software, and know-how) from the VUB to INTA	- Signed technology transfer agreement - Sharing benefits documents	- Will among the parties - Progress in research and the use of guanaco VHHs drives willingness to share benefits
<u>Outputs:</u> 3.1. Monetary and non-monetary benefits derived from the use of genetic resources and their derivatives of guanacos are agreed to by INTA and government representatives of the Chubut province 3.2. Structural, biochemical, and functional properties of VHH nano-antibodies (nAb) from guanacos identified and compared with the properties of llamas 3.3. Pre-clinical studies using VHH expressed in <i>baculovirus</i> or <i>E. coli</i> to supplement the milk diet as a preventive strategy for diarrhea caused by RVA and/or					

	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of Verification</b>	<b>Risks and Assumptions</b>
norovirus					

#### 4. TOTAL BUDGET AND WORKPLAN

<b>Award ID:</b>	00095752	<b>Project ID:</b>	00099822
<b>Award Title:</b>	Argentina: Promoting the application of the Nagoya Protocol on ABS in Argentina		
<b>Business Unit:</b>	ARG10		
<b>Project Title:</b>	Promoting the application of the Nagoya Protocol on ABS in Argentina		
<b>PIMS No.:</b>	5339		
<b>Implementing Partner (Executing Agency)</b>	Secretary of Environment and Sustainable Development (MINAMB); National Institute of Agricultural Technology (INTA); and Chubut Province.		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
Outcome 1	MINAMB	62000	GEF	71300	Local Consultants	39,276	40,276	12,576	92,128	1
				71600	Travel	10,100	10,100	11,100	31,300	2
				72100	Contractual Services Companies	3,000	37,200	20,000	60,200	3
				72800	Information Technology Equipmt	4,211	0	0	4,211	4
				74200	Audio Visual&Print Prod Costs	6,000	6,000	0	12,000	5
				74500	Miscellaneous Expenses	1,700	2,000	2,500	6,200	6
				75700	Training, Workshops and Confer	19,700	44,700	42,700	107,100	7
					<b>Total Component 1</b>	<b>83,987</b>	<b>140,276</b>	<b>88,876</b>	<b>313,139</b>	
Outcome 2	MINAMB	62000	GEF	71300	Local Consultants	22,000	7,600	0	29,600	8
				71600	Travel	3,200	3,200	3,600	10,000	9
				72100	Contractual Services Companies	1,000	3,000	2,000	6,000	10
				72400	Communic & Audio Visual Equip	11,000	2,000	2,000	15,000	11
				72800	Information Technology Equipmt	5,000	0	0	5,000	12

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
				74200	Audio Visual&Print Prod Costs	0	2,500	0	2,500	13
				74500	Miscellaneous Expenses	700	700	600	2,000	14
				75700	Training, Workshops and Confer	7,600	14,600	7,700	29,900	15
					<b>Total Component 2</b>	<b>50,500</b>	<b>33,600</b>	<b>15,900</b>	<b>100,000</b>	
<b>Outcome 3 (Includes Monitoring and Evaluation Costs)</b>	<b>MINAMB</b>	62000	<b>GEF</b>	71300	Local Consultants	19,572	33,972	24,372	77,916	16
				71600	Travel	13,900	6,000	5,500	25,400	17
				72100	Contractual Services Companies	17,000	52,000	31,000	100,000	18
				72200	Equipment and Furniture	0	64,059	0	64,059	19
				72300	Materials & Goods	16,000	16,000	0	32,000	20
				72800	Information Technology Equipmt	0	5,000	0	5,000	21
				74500	Miscellaneous Expenses	2,750	2,750	2,763	8,263	22
				75700	Training, Workshops and Confer	0	0	20,000	20,000	23
					<b>Subtotal Component 3</b>	<b>69,222</b>	<b>179,781</b>	<b>83,635</b>	<b>332,638</b>	
				71200	International Consultants	0	14,000	24,000	38,000	24
				71300	Local Consultants	0	4,000	4,000	8,000	25
				71600	Travel	0	6,500	6,500	13,000	26
				72100	Contractual Services Companies	7,500	3,000	3,000	13,500	27
				74100	Professional Services	2,000	3,000	3,000	8,000	28
					<b>Sub-Total M&amp;E</b>	<b>9,500</b>	<b>30,500</b>	<b>40,500</b>	<b>80,500</b>	
					<b>Total Component 3</b>	<b>78,722</b>	<b>210,281</b>	<b>124,135</b>	<b>413,138</b>	
Project	MINAMB	62000	GEF	71300	Local Consultants	8,256	8,256	8,256	24,768	29

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Budget Notes
Management				71600	Travel	3,000	3,000	2,000	<b>8,000</b>	30
				72500	Supplies	6,000	6,000	6,209	<b>18,209</b>	31
				72800	Information Technology Equipmt	15,000	10,000	5,000	<b>30,000</b>	32
				74500	Miscellaneous Expenses	550	550	550	<b>1,650</b>	33
					<b>Total Project Management</b>	<b>32,806</b>	<b>27,806</b>	<b>22,015</b>	<b>82,627</b>	
				<b>TOTAL PROJECT</b>	<b>246,015</b>	<b>411,963</b>	<b>250,926</b>	<b>908,904</b>		

#### Total Budget Summary

Donor Name	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
GEF	246,015	411,963	250,926	908,904
MINAMB	444,312	444,312	444,312	1,332,936
INTA	238,333	238,333	238,334	715,000
Chubut Province	275,416	275,416	275,418	826,250
ALGENEX Spain	11,667	11,667	11,666	35,000
Vrije Universiteit Brussel	116,000	116,000	116,000	348,000
UNDP	16,667	16,667	16,666	50,000
<b>TOTAL</b>	<b>1,348,410</b>	<b>1,514,358</b>	<b>1,353,322</b>	<b>4,216,090</b>

#### Project Budget Notes

Atlas Category	Atlas Code	Budget Notes
<b>Outcome 1.</b> Strengthening the national ABS framework and building capacity to facilitate implementation of the Nagoya Protocol		
1. Local Consultants	71300	a) Part-time ABS Expert Consultant. The consultant will be in charge of the development of internal procedure protocols and of the systematization of internal information. Total cost: \$21,600; 18 months at \$1,200/month.

		<p>b) Expert Economic Consultant. The consultant will be in charge of developing the outline of the training program focused on value chains, marketing, and business plans. Total cost: \$6,400; 4 months at \$1,600/month.</p> <p>c) Technical Officer (social profile). The technical officer will be in charge of conducting surveys. He/she will survey all social stakeholders involved in ABS issues and will assess PAC status. Total cost: \$4,200; 6 months at \$700/month</p> <p>d) Expert Consultant. The consultant will be responsible for reviewing current documents and the links between existing administrative processes, with a view to harmonizing ABS and the administrative process in the form of a resolution in order to standardize the procedures on access and competence of the directorates involved at provincial level. Total cost: \$14,400; 12 month at \$1,200/month.</p> <p>e) Part-time Expert Consultant (traditional knowledge). This consultant will analyze and consolidate a draft document which will lay down the basis for a national framework for the protection of traditional knowledge. Total cost: \$9,600; 12 months at \$800/month.</p> <p>f) Expert Consultant. The consultant will be in charge of designing a program with the appropriate guidelines and contents for the modules on bioprospecting and scientific procedures with community protocols. Total cost: \$9,600; 6 months at \$1,600/month.</p> <p>g) Expert Consultant (traditional knowledge database). The consultant will create a registry of traditional knowledge available to all relevant federal and state agencies. Total cost: \$6,400; 4 months at \$1,600/month.</p> <p>h) Information Technology Assistant (national information system). The assistant will computerize the information in the national system taking the existing information in registries from MINAMB and other bodies, thus merging information from different databases into an integrated system. Total cost: \$4,200; 6 months at \$700/month.</p> <p>i) Information Technology Assistant (data entry). This assistant will enter all paper-based data related to ABS into the electronic database. Total cost: \$4,200; 6 months at \$700/month.</p> <p>j) Part-time Social Consultant (biodiversity expert). This consultant will be in charge of developing dissemination material on project-related matters (ABS, CBD, Nagoya Protocol) and the benefits derived from the use of genetic resources. Total cost: \$4,800; 6 months at \$800/month.</p> <p>k) Part-time Social Consultant. This consultant will be responsible for developing survey items, the variables to be surveyed and their scope. Total cost: \$3,200; 4 months at \$800/month.</p> <p>l) Project Manager (part-time): project planning, management of daily project activities, project reports, maintaining contact with key project stakeholders. Total cost: \$65,700; 36 months at \$1,825/month.</p>
2. Travel	71600	a) Training trips. Related to outputs 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, and 1.7. Total cost: \$31,300.
3. Contractual Services Companies	72100	<p>a) Distribution of internal and dissemination materials (two different moments). A company will be hired to distribute short documents and additional dissemination material to social stakeholders involved in the ratification of the Nagoya Protocol in Argentina. Total cost: \$4,000.</p> <p>b) National Information System (bioinformatics platform). Development of an integrated information platform</p>

		about ABS projects on genetic resources and related traditional knowledge, linked to assigned checkpoints. Total cost: \$39,200.
		c) Video for the promotion of ABS concepts under the Nagoya Protocol to raise awareness on their application. Total cost: \$17,000.
4. Information Technology Equipmt	72800	a) Computer equipment and inputs. Output 1.1, 1.4, and 1.5. The purchase of computer equipment and software is expected. Total cost: \$4,211.
5. Audio Visual&Print Prod Costs	74200	a) Protocols of standardized procedures for wild species management. Output 1.1 and 1.6. Total cost: \$5,000.
		b) Dissemination material (printed). Total cost: \$7,000.
6. Miscellaneous Expenses	74500	a) Incidental expenses related to component 1. Total cost: \$6,200.
7. Training, Workshops and Confer	75700	a) Workshops for the joint review of binding documents and consensus building for provincial implementation. Output 1.3; 1.6. Total cost: \$14,600.
		b) Training workshop for the different stakeholders involved in ABS issues and traditional knowledge. Output 1.6: Total cost: \$50,000.
		c) Closing project workshop. Output 1.6. Total cost: \$22,500
		d) Training session on SLM and LM for technical teams and key stakeholders for ABS implementation. Output 1.6. Total cost: \$20,000.
<b>Outcome 2. Contributing to the conservation and sustainable use of genetic resources derived from the guanaco population</b>		
8. Local Consultants	71300	a) Expert Consultant. This consultant will review the National and Provincial Management Plans and will draft a proposal considering the Strategic Planning and the Land Management for inclusion in these Plans. Total cost: \$19,200; 12 months at \$1600/month.
		b) Expert Consultant in Animal Health. This consultant will develop a standardized manual described the survey protocol for the study of the sanitary status. Total cost: \$4,800; 4 months at \$1,200/month
		c) Field Technical Officer. This technical officer will examine the diseases of health significance for the production in general and for the sanitary status of guanacos, with a view to standardizing major tests and analysis. Total cost: \$5,600; 8 months at \$700/month.
9. Travel	71600	a) Trips for regional dissemination and training workshops. Output 2.1, 2.2, and 2.3. Total cost: \$3,000.
		b) Trips for national meetings on adaptive management. Output 2.1. Total cost: \$4,000.
		c) Monitoring trips. Output 2.2 and 2.3. Total cost: \$3,000.
10. Contractual Services Companies	72100	a) Services for field, control, and inspection tasks. A research study will be requested to develop a manual based on existing information and recommendations for the management of productive landscape with presence of guanacos. Total cost: \$6,000.



11. Communic & Audio Visual Equip	72400	a) Communications equipment (personal GPS, car GPS, VHF radio equipment). Total cost: \$15,000.
12. Information Technology Equipmt	72800	a) Computer equipment and inputs (equipment for consultants). Total cost: \$5,000.
13. Audio Visual&Print Prod Costs	74200	a) Audiovisual materials. Output 2.1. Total cost: \$2,500.
14. Miscellaneous Expenses	74500	a) Incidental expenses related to component 2. Total cost: \$2,000.
15. Training, Workshops and Confer	75700	a) Regional workshops on management plan dissemination. Nine workshops will be carried out in the Chubut province for the stakeholders involved throughout the three years of project implementation. Total cost: \$10,000.
		b) National meeting for adaptive management. Three national meetings will be carried out with the implementing authorities for management plans (one per year) and national agencies such as INTA, SENASA, MINAMB, UNIBIO, CONICET, etc. Total cost: \$12,900.
		c) Provincial training session on guanaco management and use of the survey protocol. Local stakeholders and provincial authorities will be trained in guanaco management. Total cost: \$7,000.
<b>Outcome 3.</b> Pilot project uses genetic resources from guanacos to develop an anti-diarrheal product and demonstrates PIC and MAT, including fair and equitable sharing of benefits		
16. Local Consultants	71300	a) Legal Expert Consultant. This consultant will review the legal and regulatory frameworks related to benefit sharing for application in the Chubut province. Total cost: \$19,200; 12 months at \$1,600/month.
		b) Project Manager (part-time): project planning, management of daily project activities, project reports, maintaining contact with key project stakeholders. Total cost: \$58,716; 36 months at \$1,631/month.
17. Travel	71600	a) Trips for consensus-building meetings on pilot case. Five work meetings will be carried out to address the negotiations related to access to guanaco genetic resources within the framework of INTA's pilot case. Total cost: \$7,500.
		b) Trips for session for presentation of results. The results of PIC and MATs on INTA's case of study will be agreed and submitted to binding authorities. Total cost: \$3,000.
		c) Sampling trips to the United States. Output 3.2 and 3.3. Total cost: \$9,900.
		d) Trip to Belgium. Results presentation in congresses by GEF. Output 3.2 and 3.3. Total cost: \$5,000.
18. Contractual Services Companies	72100	a) Services for sampling and sample management (car rental, cold shipping). Output 3.2 and 3.3. Total cost: \$10,000.
		b) Sequencing service. High-complexity services for the sequencing of guanaco DNA and amplification of DNA chains. Output 3.2 and 3.3. Total cost: \$5,000.

		c) Logistics to transport at least two male guanacos less than one year old from the Chubut province to INTA Castelar facilities located in the Buenos Aires province. Output 3.2 and 3.3. Total cost: \$5,000.
		d) Partner Algenex. Functional molecule development for application in human health. Total cost: \$20,000.
		e) Services in Virginia Tech model pigs. Pre-clinical tests in gnotobiotic pigs for the validation of VHHs from guanacos as possible alternative for an anti-diarrheal treatment. Total cost: \$60,000.
19. Equipment and Furniture	72200	a) Specific equipment for high-complexity research laboratories. Output 3.2 and 3.3. Total cost: \$64,059.
20. Materials & Goods	72300	a) Kit for RNA extraction. MMLV enzyme. High-quality primers Output 3.2 and 3.3. Total cost: \$5,000.
		b) Primers, plasmid pmec. Output 3.2 and 3.3. Total cost: \$2,000.
		c) RVA and/or NoV antigens. Adjuvant. Ultra-turrax emulsifying device. Syringes, needles, Ficoll, disposable material. Output 3.2 and 3.3. Total cost: \$3,000.
		d) Molecular biology reagents. Output 3.2 and 3.3. Total cost: \$7,000.
		e) Molecular biology and cloning reagents. ELISA plates, antibody anti-M13 phage antibody, restriction enzymes. Output 3.2 and 3.3. Total cost: \$5,000.
		f) Expression and purification reagents. Classical virology reagents. Output 3.2 and 3.3. Total cost: \$10,000.
21. Information Technology Equipmt	72800	a) Phylogenetic and structural analysis software. Output 3.2 and 3.3. Total cost: \$5,000.
22. Miscellaneous Expenses	74500	a) Incidental expenses related to component 3. Total cost: \$8,263.
23. Training, Workshops and Confer	75700	b) Workshop for presentation of results related to Output 3.2 and 3.3. Total cost: \$20,000.
<b>Monitoring and Evaluation</b>		
24. International Consultants	71200	a) Mid-term project assessment: Total cost: \$ 14,000
		b) Final project assessment. Total cost: \$ 24,000
25. Local Consultants	71300	a) Mid-term project assessment: Total cost: \$ 4,000
		b) Final project assessment. Total cost: \$ 4,000
26. Travel	71600	a) Travel expenses for mid-term project assessment. Total cost: \$6,500
		b) Travel expenses for final project assessment: Total cost: \$6,500
27. Contractual	72100	a) Initial project workshop. Total cost: \$7,000

Services Companies		b) Workshops on mid-term assessment (\$2,500) and final assessment (\$2,500). Total cost: \$5,000. c) Meetings of the project board. Total cost: \$1,500; \$500/month.
28. Professional Services	74100	a) External audit (3). Total cost: \$8,000
<b>Project Management</b>		
29. Local Consultants	71300	a) Project Management (part-time): project planning, management of daily project activities, project reports, maintaining contact with key project stakeholders. Total cost: \$24,768; 36 months at \$688/month.
30. Travel	71600	a) Travel to facilitate the development of activities related to project management (meetings with authorities, decision-makers from the private sector, etc.). Total cost: \$8,000.
31. Supplies	72500	a) Office stationery and supplies. Total cost: \$18,209.
32. Information Technology Equipmt	72800	a) Six (6) PCs, six (6) LCD monitors, six (6) notebooks, three (3) multifunction printer, one (1) online communication system with a mintor for video conferences, four (4) video beams, two (2) fax machines, six (6) telephones, and computer software (Windows 7, Microsoft Office, and antivirus). Total cost: \$30,000.
33. Miscellaneous Expenses	74500	a) Incidental costs related to project management. Total cost: \$1,650

## 5. MANAGEMENT ARRANGEMENTS

128. MINAMB, in its capacity as National Environmental Authority and focal point for the CBD, will be responsible for project implementation. The UNDP will be the GEF implementing agency. Other main participants will be the environmental authorities of the province of Chubut and the INTA.

129. The project will be executed throughout a three-year period, under the national implementation modality (NIM), according to UNDP rules and regulations, with UNDP as the GEF Implementing Agency (IA) and MINAMB as an implementation partner in its capacity as National Environment Authority. As such, MINAMB will undertake full programmatic and administrative-financial control and the responsibility for supervising the project.

130. As the GEF implementing agency, UNDP is ultimately responsible for the delivery of outcomes, also subject to their certification by MINAMB, as implementing partner. UNDP will render the project management services, as defined by the GEF Council, including the following:

- Provide project audit and financial services;
- Supervise financial expenses according to project budgets;
- Ensure that the activities, including the procurement of financial services, are carried out in strict compliance with UNDP/GEF procedures;
- Guarantee the forwarding of information to GEF is carried out pursuant to GEF requirements and procedures;
- Facilitate learning by projects, exchange and dissemination within the GEF family;
- Contract the project's final and mid-term evaluations and/or additional evaluations and/or revisions, as necessary, and in consultation with project counterparts.

131. UNDP will provide support to the Project Executive Board by carrying out objective and independent project supervision and follow-up duties. Experts of the Environment Programme at the UNDP Regional Services Centre for Latin America and the Caribbean in Panama will participate when necessary in key project meetings, consultations, events, and analysis of technical reports and others.

132. Project implementation in the Province of Chubut will be carried out by the environmental authorities. They will coordinate with other government agencies in the provinces (agriculture, livestock, water resources, etc.) which must participate and/or cooperate to achieve the project objectives, together with MINAMB and INTA.

133. The Chubut provincial environmental authority and the INTA institutional authority shall appoint a Focal Point (FP). These will be the main points of contact for coordinating activities within their jurisdiction, and will act as liaisons with the national level. The FP will coordinate the implementation of activities within the province, informing the Technical Project Coordinator (TPC) of the outcomes and helping in the preparation of quarterly and annual reports of the Project Executing Unit (PEU). The FPs will keep a record of the co-financing contributions of each province and will report to the Technical Project Coordinator.

134. The following duties are the exclusive responsibility of the National Project Director, and in no case can be delegated: a) Sign the Project Document and any revisions; b) Sign the Combined Delivery Reports (CDR) and Financial Reports; c) Open and manage the project bank account (if applicable).

135. UNDP will transfer funds to the Implementing Partner pursuant to the schedule of the Annual Work Plan under the following modality or modalities (depending on what has been determined in the Ex ante Project Evaluation):

- a) Funds transferred to the bank account of the Implementing Partner: before starting activities (transfer of funds to the bank account) or after completion of activities (reimbursement).

b) Direct payment to providers or third parties of the obligations taken on by the Implementing Partners.

c) Direct payment to providers or third parties of the obligations undertaken by UN agencies for the activities agreed upon with the Implementing Partner.

136. The National Project Director can appoint a Coordinator who will be responsible for project management. The Coordinator must report to the National Director with regard to coordinating, directing, planning and supervising teams and preparing the necessary reports. SECIN will decide, together with UNDP, on the appointment for that position.

137. The project will start-up when the contributions stated for its financing are made available as per the Annual Work Plan which is a part of this Project Document. This project's financial resources will be managed according to the Manual agreed upon between the Coordinating Agency and UNDP. Administrative actions must be carried out on-line, using the IT System that links the Project, SECIN, and UNDP.

138. This Project Document can be amended through Revisions and only in accordance with UNDP and the GEF regulations:

- a) Annual (mandatory): inclusion of the Annual Work Plan for the following year.
- b) Budgetary: revision of the Annual Work Plan or annexes provided it does not entail significant changes in the project outcomes, outputs or activities.
- c) Substantive: adjustment of the outcomes, outputs or activities, project extension, or any budgetary change as per GEF policies and not accounting for over 1% of the budget in force without prior approval of the GEF Sec.

139. Revisions to this Project Document may be issued, with a maximum duration, including all its extensions, of seven years. This project will end: a) by expiry of the term foreseen for its duration; b) by mutual agreement of the parties; c) by fulfillment of its objectives, before or after the foreseen date; d) by force majeure or Act of God; and e) after six months running of no activity. Attached in an Annex are the procedures for Project Closure.

### ***Project Governance***

140. With a view to ensuring effective project implementation, the following project management structure will be set up: a Project Executive Committee (PEC) and a Project Advisory Committee (PAC). Furthermore, a central project team will include the PEU in charge of carrying out the activities set forth in the Pluri-Annual Plan and POA.

141. **The National Ministry of Environment and Sustainable Development (MINAMB)** will be the national institution **responsible for project implementation** and, therefore, will be directly responsible for: a) the technical implementation of project activities; b) the daily monitoring of project progress and achievement of outcomes; and c) financial planning and procurement of goods, minor works and services, carried out by UNDP.

142. MINAMB will appoint a **National Project Director (NPD)** who will be responsible for supervising the achievement and fulfillment of project objectives and outcomes, including the quality of its outputs, rules, and procedures established in this Project Report, and the alignment with MINAMB policies and priorities. He/she will also facilitate coordination with other MINAMB Directorates and Working Groups, and their provincial peers, will preside over the PEC and will supervise the work of the National Project Coordinator.

143. **The UNDP Office in Argentina**, at the request of the Argentine Government, will be the institution in charge of the project's administrative and financial implementation and coordination (see functions and responsibilities of the GEF implementing agency, below).

144. COFEMA and CONADIBIO are two base institutions for the project's coordination at the federal level. The former, because of its federal political representation, and the latter, because of the federal, inter-institutional, and inter-sectoral support of its members.

145. The GTCB of MINAMB will be in charge **of the project's technical coordination office at the national level (MINAMB/CTNP)**. It will be charged with the following: a) Preparing national policies and programmes for the protection, conservation, recovery and sustainable use of biodiversity, establishing permanent consultation and concertation mechanisms with provincial governments and entities representing the sector; b) Developing and promoting plans, programmes and projects on the sustainable use of natural resources; and c) Coordinating with the Forest Directorate, the Wild Fauna Directorate, the Social Forestry Programme and other initiatives and projects operating within the Under-Secretariat for Environmental Policies and Planning, actions and initiatives for the sustainable use of biodiversity, having the GTCB, under the same Directorate, implement the National Biodiversity Strategy and act as Technical Secretariat of CONADIBIO.

146. The main function of MINAMB/CTNP, following the directives and decision of PEC, will be to ensure project coordination and implementation. MINAMB/CTNP will act as PEC's Secretariat. Furthermore, it will coordinate the work and closely follow up on the implementation of project activities, manage project daily business and requirements, coordinate project interventions with other ongoing activities and ensure a high degree of collaboration among the participating institutions and organizations at all levels (national, provincial and local), follow up on project progress and ensure timely delivery of inputs and outputs. Under UNDP rules and procedures, and pursuant to this project document, MINAMB/CTNP will plan and carry out the selection process for procurement of minor goods, and hiring of services, and will ask UNDP to sign contracts, carry out procurement and pay, and will supervise and evaluate consulting services and their outputs. It will also organize project annual meetings and workshops for following up on project progress. It will be responsible for implementing the project monitoring and evaluation plan, managing its monitoring system and communication programme, and following up on the budget.

#### ***Project Executive Committee (PEC)***

147. The Project Executive Committee is in charge of project coordination and decision-making. It will meet quarterly to review project progress, adopt project work plans, and approve project deliverables. The PEC's responsibility is to ensure project activities lead to the expected outcomes as defined in the project document. The PEC is charged with supervising project implementation, adopting work plans and budgets provided by the National Coordinator, approve any important change in the project's plans, approve big project deliverables, and mediate in conflicts that may arise. It will moreover be responsible for the project's overall evaluation. The PEC can be convened to a special meeting by the Executive Secretary at the request of individual members.

148. The PEC is charged with making the project's executive decisions, particularly when guidance is requested by the National Coordinator. The PEC will play an essential role in facilitating inter-ministerial coordination, project follow-up and quality assessment in assurance of the processes and outputs, and the use of evaluations to improve performance, accountability and learning. It will ensure that the necessary resources have been committed and will settle conflicts within the project or negotiate a solution to any problem with external agencies. Furthermore, it will approve the appointment and duties of the National Coordinator and any delegation of his/her responsibilities for Project Assurance. Based on the adopted Annual Work Plan, the PEC will also consider and adopt quarterly plans, and any essential diversions from the original plans.

149. The PEC is made up as follows:

- The Executive Secretary who will preside over the PEC. This position will be filled by MINAMB.
- A representative of the main provider, to serve as guidance with regard to the project's technical feasibility. This position will be filled by UNDP.
- The main beneficiaries (a representative from the environmental authority in the Province of Chubut and a representative from INTA), representing the interests of those who will ultimately benefit from the project and ensure project outcome effectiveness from the standpoint of the project beneficiaries.
- The Technical Project Coordinator will attend PEC meetings but will have no formal vote on the Committee.

150. The PEC will meet at least once a year.

#### ***Project Advisory Committee (PAC)***

151. The CONADIBIO Sub-Committee on the Conservation and Sustainable Use of Biodiversity will act as Project Advisory Committee (PAC) and will be the political-technical body in charge of supporting project planning and implementation. Furthermore, it will provide technical support to the project and facilitate inter-sectoral coordination. The PAC will be presided over by a high-level MINAMB representative, namely, the National Project Director. Moreover, the PAC will also comprise those institutions identified during the PPG stage as key project stakeholders (see Table 2, section 1.5) that are currently not a part of the CONADIBIO Sub-Committee on the Conservation and Sustainable Use of Biodiversity. The National Wildlife Division and INTA will also participate.

152. CONADIBIO's Sub-commission on Genetic Resources is composed of members of the scientific and technical fields, governmental agencies from the production, educational and environmental areas, SENASA, and NGOs, among others. At present, its members include MINAMB, SENASA, INASE, INTA, MAGyP, APN, the General Directorate of Environmental Affairs of the Ministry of Foreign Affairs and Worship (DIGMA), CONICET, and twelve NGOs.

153. UNDP will partake in the PAC. The Project Technical Coordinator will attend the meetings but will cast no vote at Committee meetings. The first PAC meeting will be held before the Inception Workshop to outline/review the Annual Operations Plan (AOP) and agree on a schedule of activities and meetings. In the middle of each year, PAC will review project progress before preparing the PIR and will provide recommendations and proposals for improvement, so as to facilitate achievement of project goals. At the end of each year, PAC will review the project AOP prepared by the Project Executing Unit (PEU) and will make the necessary suggestions and recommendations. The meetings will be convened by the National Project Coordinator and the topics on the meetings' agenda will be agreed upon by simple majority among the members present at the meeting. The PAC will meet at least three times a year.

#### ***Project Executing Unit and Technical Project Coordinator (PEU and TPC)***

154. The PEU will include a National Project Director (NPD), a National Project Coordinator (NPC), financed by co-financing funds, and a Technical Project Coordinator (TPC) and administrative/accounting staff funded by the project. Furthermore, MINAMB technical and administrative staff (particularly from the GTCB), the technical and administrative staff of the Directorate of Fauna of Chubut province and INTA's technical and administrative staff, will also participate and render support to PEU. In order to obtain specific outcomes, GEF incremental support will also be used to hire specialized consultants for certain periods. With regard to specific outputs, agreements will be entered into with national institutions or organizations, provincial organizations, research and/or academic institutions, national universities, as well as civil society organizations.

155. The MINAMB Under-Secretary of Environmental Policy and Planning shall be the National Project Director (NPD). He/She will work to ensure the achievement of project outcomes and objectives and the fulfillment of the rules and procedures established in this Project Document. The NPD will be solely responsible for requesting fund advances, according to the AOPs outlined each year, and can delegate to the National Project Coordinator (NPC) the responsibility for procurement, as well as other necessary actions for project management to be carried out on behalf of the project.

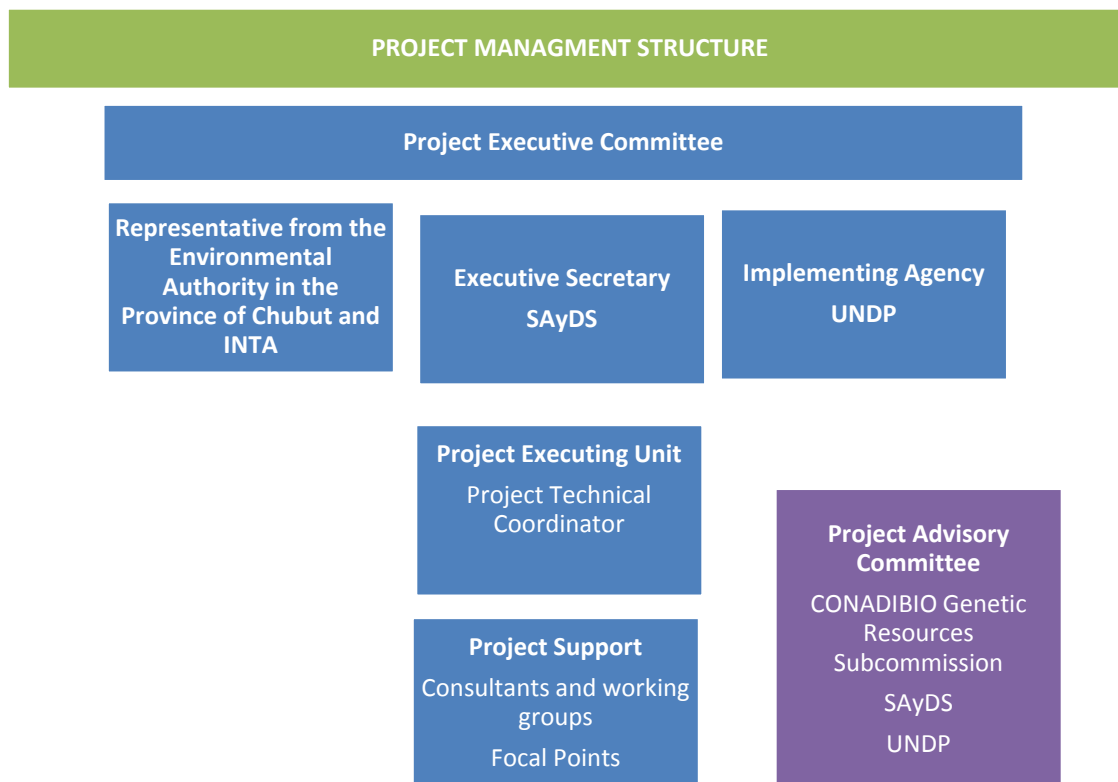
156. The Coordinator of the GTCB will act as the NPC. His/her responsibility will be to work on behalf of the national political authority, to warrant the project achieves its goals, objectives and outcomes as established in this Project Document and its annexes. The NPC will also ensure the project is closely aligned with the National Biodiversity Strategy, and with the other MINAMB programmes and projects, and contribute to the effective dissemination of lessons learnt at the national and international levels. The NPC will trigger preparation of the pluri-annual plans, with the assistance of the TPC, to reflect activities and outcomes to be accomplished throughout the project.

157. The TPC will be hired by the project and charged with the daily management of the Project, supervision of the implementation of activities, and project reports. He/She shall have experience in project management, management capacity, and team management skills. He/she will also have knowledge of group dynamics and team work, knowledge of key project issues and strategic planning skills.

158. The PEU will develop the AOPs with the support of WGBD, an annual plan indicating the field visits and activities scheduled for the year, schedule for the implementation of each activity, and those responsible for implementation, the budget and monitoring and evaluation plan. The project's AOP will be reviewed by the PAC and approved by the PEC.

159. The Provincial FP will be appointed by the Province of Chubut in the way of co-financing contribution, and will be responsible for coordination at the provincial level for effective project implementation in their territories. He/she will serve as provincial reference person for coordination among the different provincial government departments and local stakeholders. They will also coordinate the different research studies conducted in Argentina with those carried out abroad, on the one hand, and PEU and consultants to be hired by the project, on the other hand. Commitments and responsibilities of the provincial FPs will be clearly established in agreements entered into by the project.





## 6. MONITORING AND EVALUATION FRAMEWORK

160. Project monitoring and evaluation (M&E) will be carried out according to the procedures established by UNDP and GEF, to be provided by the project team and UNDP-CO, with the support of the UNDP/GEF RSC, Panama City. The Project's Strategic Results Framework provides performance and impact indicators for project implementation, together with the pertinent means of verification. The M&E Plan includes the inception report, analysis of project implementation, reports on quarterly and annual analysis, mid-term and final evaluations, and audits. The following sections describe the main components of the M&E Plan and the indicative cost estimates related to follow-up and evaluation. The project's M&E Plan will be presented and adopted in the Project Inception Report, after a group discussion of indicators, means of verification, and the full definition of project staff and M&E responsibilities.

### *Project Start-up Phase*

161. A Project Inception Workshop (PIW) will be held within the first three (3) months after project start-up, with the participation of the full project team, counterparts, financing partners, officials from UNDP-CO, UNDP-GEF RSC, and UNDP-GEF HQs, as pertinent. An essential objective of this PIW will be to help the project team understand and take on ownership of the project's goals and objectives, and fine-tune the preparation of the first annual work plan based on the Project Results Framework. The above will include a revision of the results framework (indicators, means of verification and assumptions), providing additional details, as necessary, and based on this exercise, completion of the Annual Work Plan (AWP), including accurate, measurable indicators, consistent with expected project outcomes.

162. Furthermore, the purpose and objective of the PIW will be as follows: a) introduce project staff to the UNDP-GEF team that will support project implementation, namely, responsible staff at the CO and RSC; b) Details of the functions, support services and supplementary responsibilities of UNDP-CO and RSC staff with regard to the project team; c) provide an overview of UNDP-GEF reports and M & E requirements, particularly emphasizing annual Project Implementation Reviews (PIRs) and related documents, the Annual Project Report (APR / PIR), as well as the mid-term review and final evaluation. The PIW will also provide an opportunity to inform the project team on UNDP budget planning with regard to the project, budget revisions – including provisions for an annual audit- and mandatory budget amendments.

163. The PIW will also give an opportunity for all parties to understand their roles, functions and responsibilities within the project's decision-making structures, including report and communication lines and conflict settlement mechanisms. The Terms of Reference (ToR) for project personnel and decision-making structures will be discussed, as necessary, with a view to clarifying the responsibilities of each party during project implementation. The Inception Workshop Report is a key reference document and must be prepared and shared with participants to formalize several agreements and plans decided upon during the meeting (see below).

#### ***Monitoring responsibilities and activities***

164. A detailed schedule of project review meetings will be developed by the project's management in consultation with the project implementing partners and the representatives of stakeholders, and will be included in the Project Inception Report. The above schedule will include project follow-up and evaluation activities.

165. Daily progress supervision of project implementation will be the responsibility of the TPC. TPC will report to UNDP-CO any delays or difficulties encountered during project implementation so that appropriate support can be provided or corrective measures can be timely adopted. The TPC will fine-tune project progress and performance/impact indicators, in consultation with the full project team at the PIW, with the support of UNDP-CO and the assistance of UNDP-GEF RSC. The specific objectives for progress indicators during the first year, as well as the means of verification, will be developed at this workshop. They will be used to assess whether implementation is moving ahead at the foreseen pace and in the proper direction. Objectives and indicators for forthcoming years will be defined annually as a part of the internal evaluation and planning processes carried out by the project team. Impact indicator measurement related to global benefits will be developed in agreement with the schedules defined through specific studies which will be a part of project activities.

166. Periodic monitoring of progress in project implementation will be performed by UNDP-CO, by holding quarterly meetings with the Project implementation team, or more frequently if deemed necessary. This will allow the parties to take stock of activities and solve project-related problems in a timely manner to ensure timely implementation of project activities. UNDP-CO and UNDP-GEF RSC, in any event, will carry out annual visits to the project field sites, or more often based on an agreement on the agenda as put forward in the Inception Report and project AOPs to evaluate project progress first-hand. Any other Executive Committee member participate in these trips, as decided by the Executive Committee. A report on field visits will be prepared by UNDP-CO and sent out to all Executive Committee members and UNDP-GEF within a month after the field visit has taken place.

167. Annual follow-up will be performed through Executive Committee meetings. This is the highest political level meeting of the parties directly involved in project implementation. The project will be subject to revision by the Executive Committee at least once a year. The first meeting will be held after the inception workshop. The project proponent will prepare an APR/PIR and will submit it to UNDP-CO and the regional UNDP-GEF office, at least two weeks before the Steering Committee meeting for its review and comments.

168. The TPC will submit the APR/PIR to the Steering Committee, highlighting policy issues and the recommendations to be decided upon by the Committee members. The TPC will also report to the participants on any agreement reached with stakeholders during the APR/PIR preparation on how to solve operations-related problems. Independent reviews of each project component can also be performed if necessary. The Executive Committee has the authority to suspend disbursements if the project performance benchmarks are not met. Such benchmarks will be outlined by the PIW, based on the implementation rates and qualitative assessments on the degree of output achievement.

169. Final review of the Executive Committee will be held during the last month of project operations. TPC is responsible for preparing the Final Report and submitting it to UNDP-CO and UNDP-GEF RSC. A draft will be prepared at least two months before the Executive Committee meeting to allow its review, and will serve as a basis for discussions at the Executive Committee meeting. The final opinion of the Executive Committee will take into account project implementation as a whole, paying special attention to whether the project has achieved its stated objectives and whether it has contributed to the broader environmental goal. It will decide whether actions are still necessary, particularly with regard to project outcome sustainability, and will act as a vehicle through which lessons learnt may be seized to nurture other projects.

### ***Project Monitoring Report***

170. The TPC, together with the enlarged UNDP-GEF team, will be charged with preparing and submitting the following mandatory reports as part of the follow-up process.

171. A **Project Inception Report** (PIR) will be prepared immediately after the PIW. It will include a detailed Annual Work Plan for the first year, divided into quarters, and depicting the activities and progress indicators which will guide the first year of project implementation. This work plan will include dates for specific field visits, and support missions by UNDP-CO or RSC or consultants, as well as the dates for meetings of the bodies in charge of making project-related decisions. The PIR report will also include a detailed project budget for the first full year, prepared on the basis of the annual work plan, and including follow-up and evaluation requirements to effectively measure project performance for the 12-month period. The PIR will moreover include a more detailed narrative on the institutional functions, responsibilities, coordination actions, and feedback mechanisms of project partners. Furthermore, a section will refer to progress made so far on the establishment of the project and start-up activities, as well as an update of changing external conditions affecting project implementation. Once the PIR has been completed, it will be sent out to counterparts that will have a month to provide comments or pose questions. UNDP-CO and UNDP-FMAM RSC will review the PIR before it is circulated.

172. In light of the similarities between APR/PIR (Project Inception Report) and the PIR (Project Implementation Review), UNDP-GEF has prepared a harmonized format for fulfilling both the following requirements:

173. The **Annual Performance Report** (APR / PIR) is a UNDP requirement and a part of the core supervision by UNDP-CO, and project follow-up and management. It is a CO self-assessment report for project management and provides inputs for the report submission process of country offices, and the Results-oriented Annual Reporting, as well as a key input for the PB Revision. An APR / PIR is prepared on an annual basis before the PB Revision, to reflect progress achieved in fulfillment of the project's annual work plan and to evaluate project performance in contributing to foreseen outcomes, through outputs and partnerships/co-ops. The APR/PIR format is flexible but must include the following sections: a) Project risks, problems and adaptative management; b) Project progress with regard to indicators and pre-defined objectives; c) Outcome performance; and d) Lessons learnt/ best practices.

174. The **Project Implementation Review (PIR)** is an annual follow-up process provided for by GEF. It has become an essential management and surveillance tool for project managers, and is the main vehicle for drawing lessons from ongoing projects. Once the project has been in place for a year, a PIR

must be completed by the Country Office, together with the project's management. The PIR can be prepared at any time during the project and must be discussed at the Project's Executive Committee meeting so that it results in a PIR agreed by the project, the implementing partner, UNDP-CO, and RSC – Panama. Individual PIRs are collected, reviewed, and analyzed by RSC before they are sent to the focal area groups at UNDP-GEF HQs.

175. Every three months, the project team will provide to the local UNDP-CO and to UNDP-GEF RSC, Quarterly Progress Reports describing the main changes in project progress. Progress made will be supervised on the UNDP Management Platform the risks will be periodically updated in ATLAS, based on the initial risk analysis.

176. **Specific thematic reports** focused on specific topics or fields of action will be prepared by the Project team when requested by UNDP, UNDP-GEF, or the implementing partner. The request for a Thematic Report will be sent by UNDP in writing to the project team, clearly stating the topic or activities to be reported on. These reports can be used as a good exercise of lessons learnt, specific supervision of key areas, or as problem-solving exercise to evaluate and overcome any obstacles or difficulties encountered. UNDP is asked to keep their requests for Thematic Reports to a minimum amount, and when they are deemed necessary, a reasonable time will be allowed for preparation of the report by the project team.

177. The **Project's Final Report** will be prepared by the Project team during the last three (3) months of project implementation. This overarching report will summarize all project activities, achievements and outcomes; lessons learnt; fulfilled or unfulfilled objectives; implemented structures and systems; etc. and will be the final statement on project activities during its useful life. It will also put forward recommendations for any other measure that may be necessary to guarantee the sustainability and replicability of project activities.

178. The **Technical Reports** are detailed documents covering specific areas of analysis or scientific specialties within the overall Project. As a part of the Inception Report, the project team will prepare a list of technical reports expected from the key fields of activity during the project's implementation, and the tentative deadlines for such reports. When necessary, the list of reports will be reviewed and updated, and included then in the APR / PIR. The Technical Reports can also be prepared by external consultants and must include comprehensive, specialized analysis of the research areas, clearly defined within the framework of the project and its sites. These technical reports will represent, in any case, a substantive Project contribution to specific areas, and will be used in initiatives to disseminate relevant information and the best practices at the local, national, and international levels.

179. **Project Publications** will be a key method for setting forth and disseminating project outcomes and achievements. These publications may be scientific or informative documents on the project's activities and achievements in the way of articles in magazines or multimedia publications, and they may be based on technical reports, according to the relevance and scientific value of the reports, or they may be summaries or compilations of a series of technical reports and other research work. The project team will determine whether any of the Technical Reports deserve to be officially published and –in consultation with UNDP, the Government of Argentina, and other stakeholder groups- will plan and produce these publications in a consistent and recognizable fashion. Project resources must be defined and allocated to these activities as pertinent and in line with the project budget.

### ***Independent Evaluations***

180. The Project will be subjected to at least two independent external evaluations as follows:

181. An independent **Mid-Term Review** will be performed half-way through the project. This mid-term review will determine whether progress is being made towards the achievement of outcomes and will identify the need for correcting the course of action, if necessary. It will focus on efficacy, efficiency, and timeliness in project implementation; and will highlight matters requiring decisions and actions; and

will speak to the initial lessons learnt from project design, implementation, and management. The outcomes of this review will be included into the second half of the project as recommendations to improve project implementation. The organization, terms of reference and the exact timing of the mid-term review will be decided upon, prior consultation among the parties to the project document. The TORs for this mid-term review will be prepared by UNDP-CO, based on guidance received from UNDP-GEF RSC. Evaluation outcomes will be uploaded into UNDP corporate systems, particularly the UNDP Evaluation Resource Centre (ERC).

182. An independent **Final Evaluation** will take place three months before the final Executive Committee meeting, and will focus on the same topics as the mid-term review. The final evaluation will also analyze the impact and sustainability of outcomes, including the project's contribution to capacity-building and the achievement of global environmental goals. The Final Evaluation should also provide recommendations on follow-up activities and request a reply from Management that should be included in PIMS and the UNDP Evaluation Resource Centre (ERC). The TORs for this evaluation will be prepared in close collaboration with PEU, MINAMB, and UNDP-CO, based on guidance from the UNDP-GEF RSC.

#### ***Changes in the rate of exchange and anticipation of changes in local rates of exchange***

183. Potential changes in local rates of exchange due to differences in rates can increase or diminish the value in dollars (USD) of each deposit, pursuant to Chapter 5, Article 5.04 of the UNDP Financial Manual. Adjustments will be made via the budget revision, and previously informed to the steering committee members.

184. On a quarterly basis, UNDP, together with the Project Director, will carry out an analysis of how much can be covered with the available budget and available project funds (as a result of potential variations in the rates of exchange) with a view to adjusting work plans. Any necessary amendments will be made through a project revision, in agreement with the Executive Committee members

#### ***Audit Clause***

185. According to UNDP general corporate audit regulations, internal and external audits will be carried out individually by each responsible party, and the costs will be borne by the project. The audit will be performed pursuant to UNDP financial audit rules, regulations and policies. The Government of Argentina will provide the Resident Representative with periodic, certified financial statements, and with an annual audit of such financial statements regarding the status of UNDP funds (including GEF funds) as per the procedures established in the Programming and Finance rules and regulations.

186. The Project will be subject to an audit according to the annual programme established by UNDP, and will be audited at least once during its implementation. This audit must be carried out between the months of January and March, so the reports are ready before 30 April. When UNDP decides so, the audit may start in the month of October based on a preliminary Combined Delivery Report, so the auditors can analyze the different aspects of internal control and management, including the evaluation on how the implementation of the previous audit recommendations is faring. The exercise will be completed with the final CDRs and the issuance of a Final Report to be submitted by 30 April (with an opinion on the financial statements for the period 1 January – 31 December of the audited year).

187. The Project Budget must foresee the necessary resources for an institution or audit firm to carry out the audit. Fulfillment of audit recommendations will be the responsibility of the project management and will be monitored by UNDP and SECIN.

188. Additionally, spot checks will be performed, on documents randomly selected to evaluate procurement procedures, internal control soundness, and accuracy of the financial records.

189. Audits of the government Implementing Partners should be carried out preferably by the Supreme Audit Institution (SAI), or private entities, encompassing not only an analysis of financial records, legal

and accounting aspects of the actions foreseen in project implementation, but also an appraisal of management in terms of outcomes according to the objectives and goals defined in the project's design. In this regard, and especially when the project has international financing, it is recommended that the General Auditor's Office at the national level and the Court of Auditors at provincial level carry out such audit.

190. Should a project assessment be requested, it will be necessary to justify it and propose a date for such assessment. A project assessment is only required when the partners' protocols set forth such a requirement, for instance, in the case of GEF. However, a project assessment may be requested given the complexity or the innovative aspects of a project.

#### ***Dissemination of lessons learnt and knowledge***

191. Project outcomes will be disseminated within and outside the project's area of intervention, through a series of existing networks and fora for exchange of information. Furthermore, the project will participate, when appropriate, in UNDP-GEF sponsored networks, organized by high-level staff working in projects sharing common traits. UNDP-GEF RSC has established an electronic platform for exchanging lessons learnt among those responsible for the project. The project will identify and participate, as pertinent and appropriate, in scientific networks and/or in any other policy-based network which can be beneficial for the project's implementation, besides the lessons learnt. The project will identify, analyze and share lessons learnt which can be beneficial for the design and implementation of similar projects in the future. Identifying and analyzing lessons learnt is an ongoing process, and the need to communicate such lessons as one of the main project contributions is a requirement to be delivered every twelve (12) months. UNDP-GEF shall provide a format and help the project team in classifying into categories, documenting and submitting reports on lessons learnt. Specifically, the project will ensure coordination so as to avoid overlapping, share best practices, and generate knowledge outputs on best practices.

#### ***M&E work plan and budget***

<b>Type of M&amp;E activity</b>	<b>Responsible Parties</b>	<b>Budget USD</b>	<b>Time frame</b>
Inception Workshop (IW)	NPC TPC UNDP	7,000	Within the first two months after project start-up, at MINAMB headquarters.
Inception Report	TPC, Project Team	0	Immediately after IW
On-field impact monitoring including visits to field sites	TPC	0	Continuously
Quarterly progress reports	TPC, Project Team	0	Quarterly
APR and PIR	TPC, Project Team UNDP Country Office UNDP GEF	0	Annually
Project Board Meetings	NPC TPC	375	Once a year
Advisory Committee	NPC TPC	1,125	Three times a year
Tripartite Committee Reviews	GEF Focal Point UNDP Country Office Project Team	0	Annually
Technical reports	TPC EC	0	As necessary
Audit	UNDP Country Office	8,000	Annually
Mid-term Evaluation	Project Team UNDP Country Office RCU UNDP/GEF Evaluation Team	27,000	Half way through the project
Lessons learned	TPC	0	To be determined by Project

Type of M&E activity	Responsible Parties	Budget USD	Time frame
			Team and UNDP-CO
Final Evaluation	Project Team UNDP Country Office RCU UNDP/GEF Evaluation Team	37,000	Upon project completion
Project Final Report	TPC	0	Al menos un mes antes de concluir el proyecto
<b>TOTAL INDICATIVE COST</b> (*excluding project team staff time and UNDP staff and travel expenses)		80,500	

## 7. LEGAL CONTEXT

192. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Argentina and the United Nations Development Programme, signed by the parties on 26 February 1985, and approved by Law 23,396 of 10 October 1986. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

193. The UNDP Resident Representative in Argentina is authorized to effect in writing the following types of revisions to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes: (a) Revision of, or addition to, any of the annexes to the Project Document; (b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation; (c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility, and; (d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

194. This document, together with the CPAP signed by the Government and UNDP, which is included by reference herein, constitute the Project Document as stated in the Standard Basic Agreement [or any other movement agreement deemed appropriate] and all CPAP provisions apply to this document.

195. According to Article III of the Standard Basic Assistance Agreement, the responsibility for the safety of the implementing partner, its staff, and property, and the property of UNDP in custody of the implementing partner, lies with the implementing partner.

196. The implementing partner shall:

- Put in place an appropriate safety and security plan and maintain such plan, taking into account the security status of the country in which the project is being implemented;
- Undertake all risks and responsibilities related to the implementing partner's safety and security, and the full enforcement of the safety and security plan.
- UNDP reserves the right to check such plan is in place, and suggest modifications to the plan, if necessary. The lack of appropriate maintenance and implementation of such a plan will be considered a non-compliance of this agreement.

197. The executing partner commits to make all reasonable efforts to ensure none of the UNDP funds received pursuant to this Project Document are used to provide support to persons or entities linked to terrorist activities, and that the recipients of any amount foreseen by UNDP do not appear on the Security Council list, pursuant to Resolution 1267 (1999). The list can be accessed at <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision should be included in all sub-contracts or sub-agreements entered into under this Project Document.

198. The implementing partner commits to make all reasonable efforts to ensure none of the UNDP funds received pursuant to this Project Document are used to provide support to persons or entities linked to terrorist activities, and that the recipients of any amount foreseen by UNDP do not appear on the Security Council list, pursuant to Resolution 1267 (1999). The list can be accessed at <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision should be included in all sub-contracts or sub-agreements entered into under this Project Document.

199. Since on 8 February 2010, the Argentine Government and UNDP signed the 2010-2014 CPAP, as from that date this Project Document is subordinated to such CPAP. In the event of any contradiction between this Project Document and CPAP, the provisions of the latter shall prevail.

200. Actions carried out by the implementing agency in fulfillment of the project will be subject to the provisions referred to in the Agreement and this Project Document, as provided for in paragraph 3, of the above Article III. Therefore, in this case, the implementing agency acts as an Argentine Government agent within the framework of the International Agreement ratified by law, and of this Project Document, excluding all other legislation that would have been applicable had the Agreement not been signed, and that pursuant to the provisions of Article 75 (22) of the National Constitution, stands over and above the laws.

201. The Agreement foresees “its application to all UNDP assistance and Project Documents and other instruments the parties may agree upon to further define the details of such assistance and the responsibilities of the parties and implementing agency with regard to such Projects.”

202. The parties have broad powers for establishing the overall regulations and functions of the implementing agency, which should be specified in the Project Document and its annexes, thus having the possibility of appointing as implementing agency, an Argentine government agency, establishing its functions and providing it with powers to issue specific regulations for procurement, payments, etc.

203. Generally speaking, the Agreement establishes (in Article X, para.1) that “the Government will adopt all necessary measures to ensure UNDP, its implementing agencies, experts and other persons rendering services on their behalf are not subjected to other legal regulations or provisions which can hinder operations performed pursuant to this Agreement...”, thus granting full freedom to the parties for establishing the implementation regulations considered most suitable.

204. Project document revisions indicated below can only be performed by the UNDP Resident Representative, provided the other signatories do not object to such revisions:

- a) Revisions of any project document annexes or any additions thereto.
- b) Revisions not entailing significant changes in the immediate project objectives, its outputs or activities, but stemming from a re-distribution of inputs already agreed upon or increases in expenses due to inflation, and
- c) Mandatory annual revisions to rephrase the delivery of the agreed project inputs, increase in expert expenses or any other kind of expenditure due to inflation; or to take into account the flexibility margin of the implementing agency as to expenditure.

205. On the other hand, should there be any adjustments in the Project Document’s immediate objectives, outputs or proposed activities, or an extension in the project cycle or any project budget amendments, a substantive revision as well as a budget revision shall be carried out and signed by UNDP and the Ministry of Foreign Affairs and Worship, and the implementing agency.

#### ***Agreement on Intellectual Property Rights and the use of the logo on Project Deliverables***

206. With a view to appropriately recognizing GEF’s funding, a GEF logotype shall appear on all GEF projects’ relevant publications, including, inter alia, project hardware and vehicles purchased using GEF funds. Any quote in the publications regarding GEF-funded projects should also duly acknowledge GEF.