



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FSP

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT IDENTIFICATION

Project Title:	Strengthening national frameworks for IAS governance: piloting in Juan Fernandez Archipelago		
Country:	Chile	GEF Project ID:	4330
GEF Agency:	UNDP	GEF Agency Project ID:	4272
Other Executing Partners:	National Environment Commission (CONAMA) with support from SAG, CONAF and NGOs	Submission Date:	September 16, 2010
GEF Focal Area:	Biodiversity	Project Duration:	48 months
Parent program	NA	Agency Fee:	420,000

A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing GEF (\$)	Indicative Co Financing
BD-2	2.3 Improved management frameworks to prevent, control and manage invasive alien species	Output Policies and regulatory frameworks for production sectors :IAS management framework operational as recorded by GEF 5 TT	3,650,000	6,280,000
Project management cost			350,000	620,000
Total project costs			4,000,000	6,900,000

B. PROJECT FRAMEWORK

Project Objective: National policy frameworks and institutional capacities are in place to control the introduction and spread of invasive alien species (IAS) through Trade, Travel and Transport: piloting surveillance and control measures in a high biodiversity environment threatened by IAS—the Juan Fernandez archipelago

Project Component		Expected Outcomes	Expected Outputs	Indicative Financing GEF	Indicative Co Financing
A regulatory, institutional, and financial framework to combat IAS important to biodiversity conservation is in place See paragraph 16 for indicative species and habitat GEB	TA	<ul style="list-style-type: none"> Surveillance of trade and travel between continental Chile and its islands and the uptake of new handling and transportation standards <i>reduces the risk of entry</i> of IAS into vulnerable ecosystems. Financed IAS protocols <i>reduce the spread</i> of IAS within vulnerable ecosystems and <i>contain</i> populations below thresholds that endanger endemic species and their habitats. Strengthened IAS management framework enables the Juan Fernandez Archipelago IAS control system to be deployed and provides the basis for its replication to other Chilean insular ecosystems (e.g. Easter, Mocha, Tierra de Fuego, Desventuradas) protecting biodiversity from bio-invasion of ~ 9.500 ha in JFA & 397km² additional in other islands* 	<ul style="list-style-type: none"> National Integrated Action Plan of Invasive Species (NIAPIS) with priority IAS; targets; and timelines Legal Arrangements for NIAPIS implementation including Protocols for priority IAS. Institutional mandates and responsibilities for implementing the IAPIS and Protocols Financial Plan and mechanisms for IAPIS and Protocol implementation Regulatory proposals for IAS control in the trade, travel and island tourism sectors 	1,200,000	2,375,000
An integrated IAS control system is piloted in the Juan Fernandez Archipelago and provides tools and approaches for replication at the	TA	<ul style="list-style-type: none"> Surveillance of goods and visitors entering JFA reduces IAS introduction rates by > 30% by project end and more in the longer term. Control and eradication demonstrations reduce populations of key aggressive IAS within the JFA by >20% by project end and provides knowhow for up scaling control campaigns in the longer-term. 	<ul style="list-style-type: none"> Inspection and quarantine measures for controlling IAS introduction to and within JFA Early warning system for rapid detection of new IAS in JFA Protocols tested to control IAS spread within the JFA Control of key IAS populations to 	1,440,000	1,985,000

national level.		<ul style="list-style-type: none"> Collectively this increases protection to globally significant biodiversity by a) reducing pressures to endemic plants species from invasive herbivores (eg rabbits) and from overcrowding (eg blackberry) - 62% of vascular plants in JFA are endemic) and b) increasing reproduction success of native birds such as the Masafuera rayadito by controlling invasives that feed on their eggs (rats and coati). 	<ul style="list-style-type: none"> levels that do not endanger endemic species (<i>species to be selected during further project preparation</i>) Eradication of key IAS that endanger endemic species (<i>species to be selected during further project preparation</i>) Integrated IAS Action Plan for JFA 		
Institutional and individual capacities and awareness is strengthened for the implementation of the national and JFA IAS plan	TA	<ul style="list-style-type: none"> Institutional coordinating mechanisms & strengthened capacities optimize current installed capacities for IAS; facilitates implementation of IAS Action Plan; and increases effectiveness of contingency plans for IAS emergencies Increased awareness in visitors and residents of a) the IAS threat; b) new transportation procedures and tourism controls and c) early warning procedures <i>reduces the entry</i> of IAS into JFA; <i>contains</i> their expansion within the islands and enables the more effective deployment of control measure before IAS populations reach critical levels. 	<ul style="list-style-type: none"> National Operational Committee for cross- sectoral IAS control Institutions with trained staff and tools (e.g IAS database, control guidelines) for implementation and enforcement of IAS control measures Government and private-sector stakeholders in trade, travel and island tourism informed of IAS threat, the IASP Action Plan and supporting regulations Civil society in JFA informed of IAS threat, the JFA Action Plan and supporting regulations Tourist services in JFA for control of the IAS threat (reception structure, guided visits; brochures etc) 	1,010,000	1,920,000
Project management cost				350,000	620,000
Total project costs				4,000,000	6,900,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Government	CONAMA; SAG; CONAF	Grant	2,450,000
Government	CONAMA; SAG; CONAF	In kind	2,500,000
GEF Agency	UNDP*	Grant	50,000
Private Sector	Hotels and transport companies	Grant	250,000
Private Sector	Hotels and transport companies	In kind	250,000
Multilateral	United Nations Food and Agriculture Organization (FAO) **	Grant	300,000
NGOs	Island Conservation)	Grant	500,000
NGOs	OIKONOS, and Biodiversa Unión de Ornitólogos de Chile: Island Conservation	In kind	600,000
Total Co-financing			6,900,000

*see section C1. ** Initial interest expressed and confirmed in further project preparation

D. GEF RESOURCES REQUESTED BY AGENCY , FOCAL AREA AND COUNTRY : NA

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. THE GEF FOCAL AREA STRATEGIES:

1. Chile has recognized that invasive alien species (IAS) are a significant threat to its biodiversity and especially its island ecosystems where introduction of IAS, principally through the practices of the trade, transport and tourism sectors, increase risks of bio-invasion and the ecosystems are particularly vulnerable to this threat. Despite Chile's robust system of inspection for exotic species dangerous to health and economic sectors such as agriculture there are deficiencies in the control of IAS that endanger biodiversity. The Government of Chile (GoC) is seeking GEF support through UNDP to address these deficiencies and to influence production practices employed by economic sectors, and

human behavior in insular ecosystems where biodiversity is being threatened by the spread of alien invasive species. It will do so by developing the policy, legal and financial framework to engineer a paradigm shift in production systems focusing principally on the trade, transport and insular tourism sectors, to reduce the risk of IAS introduction and spread. It will develop the know-how – by piloting surveillance and control measures in a high biodiversity environment threatened by IAS—the Juan Fernandez archipelago (JFA). A small investment will be channeled to site demonstrations for control and eradication in JFA to determine feasibility and cost effective management approaches. These will enable the construction of systemic solutions for integrated IAS management that deploy the most cost effective and relevant IAS actions over the long-term in these islands and feed into the national framework for integrated IAS management. As such these interventions are compliant with eligibility criteria for the GEF Strategic Objective 2 of GEF 5: Mainstream biodiversity conservation and sustainable use into production landscapes, seascapes and sectors and its third Outcome: Improved management frameworks to prevent, control and manage invasive alien.

A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS UNDER RELEVANT CONVENTIONS

2. The project is well aligned with national priorities and plans. Chile's National Strategy for Biodiversity (NBSAP) calls for National Action Plan for Invasive species (Strategic line 2.2). With the support of the international community some advances have been made towards this goal. The I3N (Invasive Species Network) of the IABIN¹ has set up a preliminary database of the main invasive species. A National Operational Committee for the Control of IAS (COCEI) was created in 2005 and is working to improve coordinating efforts among public institutions in this field. Through its institutional capacity building efforts the project will provide much needed support to consolidate and expand these efforts to ensure that cost effective IAS control can be channeled to vulnerable ecosystems of global significance. Chile also has made progress in developing biodiversity Regional Strategic Plans as a first step action in the protection of biodiversity. The Valparaiso action plan is an example of this, and it lists eco-regions, native species and invasive species that threaten them. The project will work to expand this approach to other Regions thereby advancing IAS control at the sub-national level.

3. The project is consistent with international commitments ratified by Chile such as the CBD (ratified 1994) and with the national efforts to safeguard economic activities through the prevention of sanitary crisis in accordance with the IPPC ratified in 1952. However due to a number of constraints (detailed in paragraph 9), IAS governance has not advanced as quickly as needed and the threat to biodiversity is increasing. This GEF project will advance Chile's national and international commitments in IAS governance by developing an IAS Action Plan based on ground proofing in a pilot site of global significance. Further it will support the institutional design required for its successful implementation. In doing so the project is entirely in line with national priorities and plans and will capture biodiversity GEB alongside advancing Chile's national targets for biodiversity conservation.

B. PROJECT OVERVIEW:

B.1. THE BASELINE OF THE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

4. Chile's large area (756,000 km²), latitudinal range, altitudinal diversity, and natural barriers that isolate it from other landmasses have resulted in a rich biodiversity heritage that includes high levels of endemism. The WWF classification identifies 26 ecological regions in Chile (11 terrestrial, 8 freshwater and 7 marine) representing a wide range of climatic characteristics: desert, tropical, Mediterranean, oceanic, continental, and polar. Among these ecoregions 8 form part of the Global 200 WWF classification and collectively harbour 109 endemic animal species and 5,125 endemic plant species. Amongst these the Juan Fernández Archipelago (JFA) has been identified as a biodiversity hotspot and is considered key for conservation due to its high levels of endemism².

5. Located 667 km off the coast of continental Chile JFA comprises ~ 9,570 ha in 3 main islands: Isla Robinson Crusoe (Masatierra), Santa Lara and Isla Alejandro Selkirk (Masafuera). The Juan Fernandez Temperate forest is

¹ The Invasive Information Network integrates information from Western Hemisphere countries to support the detection and management of IAS. It provides capacity building, electronic tools, and support for database development and increased access to information. The Inter-American Biodiversity Information Network fosters technical collaboration and coordination among countries of the Americas in collection, sharing, and use of biodiversity information relevant to decision-making on natural resources management and conservation, and education to promote sustainable development.

² The JFA is the WWF eco-region "Juan Fernandez Islands Temperate Forests; is grouped with the "Valdivian Temperate Forests in the Global 200's Eco-region # 76; and is the "179 Juan Fernández and Desventuradas" of Marine Ecoregions of the World (MEOW).

exclusive to the JFA with a different combination of species than equivalent mainland areas. These forests contain a high percentage of endemism amongst vascular plants and possess the only endemic humming bird known for oceanic islands. The native flora includes 209 species of vascular native plants, 62% of which are endemic (130 species). The diversity of terrestrial fauna of the islands is lower than the flora but its avifauna is of major importance to Chile. From the 296 breeding bird species in Chile only 11 are endemic and 5 of these are restricted to the JFA. Seventeen land and seabirds species breed regularly in JFA amongst which 8 species and sub-species are endemic. These include the endangered Juan Fernandez Firecrown (*Sephanoides fernandensis*), the Juan Fernandez Tit-tyrant (*Anairetes fernandezianus*) and the Masafuera Rayadito (*Aphrastura masafuerae*). In the case of marine birds, the Pink-Footed Shearwater (*Puffinus creatopus*), the Stejneger's petrel (*Pterodroma longirostris*) and the Juan Fernandez Petrel (*Pterodrom externa*) are migrating species that nest only in the JFA. In mammals, the endemic fur seal (*Arctocephalus philippii*) is considered a vulnerable species according to the conservation status classification applied in Chile.

6. The main threats to Chile's biodiversity are the elimination; fragmentation and degradation of habitat and ecosystem functions. The drivers stem from a number of sources some of which are related to the country's natural resource-based production sectors such as agriculture, mining and forestry. However there is growing recognition that IAS are amongst the most serious. Indeed the NBSAP and its 2004-2015 Country Action Plan (CAP) identify IAS as one of the major drivers of change in biodiversity and ecosystems in Chile. Invasive species have been introduced both intentionally and unintentionally. For example pine (*Pinus radiata*) and eucalyptus (*Eucalyptus globulus*), were intentionally introduced for forest plantations; others, such as the "maqui" (*Aristotelia chilensis*), the blackberry (*Rubus ulmifolius*), and the "murta" (*Ugni molinae*) to provide new varieties of berries; and mammals as pets or for food such as the goat (*Capra hircus*) and the rabbit (*Oryctolagus cuniculus*). Involuntary introductions also occur principally through the practices of the transport and insular tourism sectors and include for example rats (*Rattus rattus*, *R. norvegicus*) and the common mouse (*Mus musculus*).

7. Although the effects of IAS on biodiversity are felt in many of Chile's ecosystems it is of greatest concern in its islands, especially JFA. Introduced IAS plants such as the "maqui," blackberry, "murta" and "trun" (*Acaena argentea*) are reproducing faster there than native species, competing for space. This situation is aggravated by birds such as pigeons, Austral thrushes and house sparrows which spread seeds around the archipelago. Feral cats (*Felis catus*) in JFA exert pressure on endemic birds and others species such as the coati (*Nasua nasua*), rats, and the common mouse prey on the eggs of native birds such as the Masafuera Rayadito, whose population is estimated at less than 300 individuals. Feral goats and rabbit populations feeding on plants and causing erosion are critical in some JFA islands. Although goat populations have reached a balance in Robinson Crusoe Island with 300 to 400 individuals due to previous control initiatives, in Selkirk Island, populations are ~3,000. Similarly on Santa Clara's Island the rabbit population is stable through a control plan but in Robinson Crusoe this species is endangering native plants.

8. The Government of Chile (GoC) has long recognized the threat of IAS to its national well-being and is making considerable baseline investment to address this including covering the permanent costs of a sound surveillance system to control the arrival of exotic plant and animal species that could affect the economy or health of the country. However these investments focus on sanitary regulations to protect exporting economic sectors such as agriculture, forestry, livestock and aquaculture and do not cover all IAS that could endanger the country's biodiversity and ecosystem balance. Furthermore surveillance systems are only in place at the main entry points from other countries thus leaving the flow of goods, animals, plants and people between Chile's regions and between its continental territory and islands totally unprotected. This coupled with practices in production sectors have increased the rate of IAS introduction and its spread within vulnerable ecosystems and represents a serious threat to Chile's globally significant biodiversity and particularly its islands. This is because insular territories depend heavily on the transport and tourism sectors that are the main pathways of IAS introduction, have higher levels of endemism than continental territories, and their biodiversity is more vulnerable to the action of invasive alien species.

9. In recognition of this, the GoC has identified the need for developing a national IAS management plan to reduce the risk of IAS introduction and spread to protect Chile's rich biodiversity assets and protect globally-significant biodiversity particularly those in vulnerable ecosystems (see paragraph 2-3). This would require building on and expanding existing baseline investments for IAS control to develop a consolidated IAS management programme that addresses the key economic sectors that are pathways of IAS introduction and backing this with an Action Plan and

the governance system required for its implementation. Progress toward this long term solution has been constrained by a number of barriers described below along with details on the baseline investments associated with each barrier:

Deficient policy, regulatory and institutional frameworks for IAS control: Chile has 34 laws and regulations in force to control exotic species. These dictate inspection procedures at the main entry points to Chile and govern the practices of different economic sectors that are pathways for introduction. While this restricts entry of some IAS to continental Chile the focus primarily on preventing sanitary crisis³ that could affect the national economy. Further there is no common vision for different sectors and regulations can be conflicting or overlapping reducing efficiencies. If an introduction is detected there are strict protocols³ to be followed to reduce spread in the cases of introduction of exotic species such as fruit flies that affect agricultural production for the export market and also on the management and prevention of mad cow disease that affects livestock and that could generate a health crisis. Yet there are no protocols for species that are known to have impacts on native biodiversity such as mink that have impacts on native biodiversity including nest destruction, eating native birds eggs, and introduction of disease to wildlife. Surveillance systems that operate under existing protocols are thus largely ineffective for detecting IAS dangerous for biodiversity. Additionally, there is no law that permits surveillance (inspection) within the country to prevent the distribution of exotic species either between regions in the continent or between the continent and islands and between islands within archipelagos. Chile is developing a National Integrated Program for the Control of Invasive Species that will define the scope and strategic lines for IAS control and has allocated baseline investment to this. However it is still incipient and does not include ground tested management approaches or defined priorities base on consolidated risk assessments. To implement this, a detailed Action Plan will be needed that sets out goals and targets and proposes cost-effective ways of achieving these within defined timeframes. Detailed information on the scale of the IAS challenge and the potential costs of different interventions are needed to complete such a Plan. Initial efforts in the identification of IAS represent an important achievement but information is still dispersed and incomplete. Baseline studies need to be complete, and priority invasive species identified to ensure efforts and scarce resources are focused on those that present the greatest risk to biodiversity. Some advances have been made in the baseline to define criteria for risk analysis and list marine and terrestrial exotic species but these require additional work and priority pathways for invasions need identifying using risk assessment procedures as appropriate. Once these priorities are established policy guidance and control instruments and protocols need to be created as well as the design of institutional mechanisms for their application and financial mechanisms for their implementation. The costs of inspection, storage and destruction of exotics are funded through national resources allocated to the annual budget of the enforcement agencies. These imply considerable base line investments estimated at US\$15 annually. A system that addresses the risk and spread of IAS dangerous to biodiversity will require additional resources. Incipient awareness of the impact of IAS on biodiversity and the associated loss of ecosystem services, alongside information gaps on potential costs and effective control approaches represent a constraint to increased budgetary allocations.

Incipient cost-effective, integrated tools and approaches to prevent, control and eradicate IAS in vulnerable ecosystems: Effective IAS management requires the selection of the different approaches and their simultaneous or sequential application. There have been isolated attempts to control IAS in some of Chile's islands including JFA. However the range of invasive species, the population levels of some and variety of ways they compete with native and endemic species make single approaches or isolated individual campaigns insufficient to arrest the growing threat posed to the islands biodiversity. Integrated IAS systems are required that combines the prevention of new introductions and the spread within the islands as well as the eradication and control of populations and the mitigation of the impact of existing ones. Commercial activities and tourism visits to the JFA are few but they pose risks of introduction of IAS. Consumer goods and visitors come in by sea and air from different places in Continental Chile. In general, ships arriving at JFA depart from Valparaíso port. Most are the navy's ships and some smaller tourism boats. Planes arriving at JFA are small (~5-10 people) and depart from Santiago and Valparaíso. During the summer there are 3- 4 flights a day and 2 a week in winter. The national authorities foresee an increase in visitors to Robinson Crusoe Island in the next few years, including the arrival of Cruise ships. There are no special requirements for the handling of goods or restriction to tourists and support eservices. Nor is there any inspection for exotics or IAS in departure or arrival points and the danger of new introduction is great. For addressing existing IAS, eradication is most ecologically advantageous but is not feasible for all invasive species and islands with existing institutional capacities and present levels of knowledge and technical know-how. JFA has staff from 2 governmental agencies that have mandates in IAS control. As JFA is a national park it falls under the jurisdiction of CONAF however most resources and staff time focus on administrative tasks and managing a nursery to reproduce endangered native flora. The Agricultural and Livestock Service has only one employee dedicate to the control programme of the German Wasp. Other agencies such as Customs, the Carabineros de Chile and the Navy could carry out the prevention, detection and control for containment of IAS within the archipelago but currently lack the mandates and authority to do so. The control of IAS populations to levels that do not threaten ecosystem integrity is a second approach. This has been undertaken in some islands, but for some species information gaps on control methods in JFA conditions impede more widespread application. Where control or eradication approaches are not possible, mitigation measures

³ In Chile an IAS Protocol is normally for a group of animal or plant species. It outlines elements such as main pathways of introduction and inspection requirements and the actions to be taken if encountered including elimination methods and procedures for informing specific institutions and avoiding dispersion.

such as fencing endemic species to maintain seed banks or exclude predators provide normally short-term protection to endangered populations whilst more permanent solutions are being developed and tested. Although some mitigation work has been done in JFA this has not been part of a plan that integrates this approach with other long term measures (see paragraph 20)

Weak institutional and individual awareness and capacities for implementing IAS control: A number of public institutions in Chile have mandates in the management of IAS yet their action is impeded by capacity deficiencies and often overlapping mandates resulting in the sub-optimal use of existing installations and staff. Given the many pathways of IAS introduction, the technical capacity of staff across a number of institutions need strengthening including those governing production sectors that are pathways for IAS introduction and those responsible for enforcement. Competency gaps include the skills for up-take of best practices and effective procedures in production sectors to reduce risks of entry; for identifying and detecting potentially invasive species and employing appropriate techniques and technologies for the control and mitigation of impacts once established. Production sectors are generally unaware of the impact of their practises on IAS. In particular those that import and use IAS (such as agriculture, tourism, transport and shipping, export forestry and fisheries) as well as decision makers in the finance, economic and trade ministries are unaware of the threat that IAS pose to development, the economy and business. To address some of these concerns a National Operational Committee for the Control of IAS (COCEI) was created conformed by 9 agencies and led by CONAMA. Staff time and resources for participation in the COCEI are part of baseline investments⁴. Since its creation, COCEI has advanced towards a shared vision among public institutions on the importance of IAS control to conserve biodiversity. However the common vision needs to be consolidated and translated into policy and action plans with clear institutional responsibilities and targets. Staff members in key institutions, at both national and regional levels, will require upgraded knowledge and skills for performing these new competencies and responsibilities. Similarly as new Protocols are approved coordination mechanisms between institutions will need to be further strengthened to ensure these are implemented effectively. This is particularly the case at the sub-regional levels and in islands. These barriers are not only restricted to governmental institutions. Local residents and tourists are largely unaware of the threats posed by IAS and do not know existing regulations and best practices to avoid introductions. Given the large cost involved and the permanent nature of the IAS threat, a cost effective approach is to detect and remove new invasives whilst their numbers are low. For this to be effective early response systems and the support and involvement of local communities are important.

10. The GoC is seeking GEF support through UNDP to overcome these barriers and to complement the national institutional baseline investments related to inspection; quarantine and IAS control by developing a consolidated integrated management system in Chile that protects biodiversity. In line with GEF focal area strategies the selected approach to achieve this is by focusing on system level solutions and on influencing production practices employed principally in the trade, transport and insular tourism sectors, and human behavior in insular ecosystems where biodiversity is being threatened by the spread of alien invasive species. The proposed alternative will be achieved by taking actions at three levels: (i) systemic: ensuring that key IAS policy and regulatory instruments for production practices and control action are in place and national priorities are defined along with the institutional roles and responsibilities and financial mechanisms for implementation; (ii) sub national: piloting an integrated surveillance and control framework to develop management approaches for cost-effective IAS in a high biodiversity landscape and pilot the effectiveness of tools defined at the national level; and (iii) institutional and individual: building capacities and awareness-levels in governmental agencies and civil society needed to implement the pilot IAS system and to fully develop and implement a national level IAS framework (para.12-14).

11. The Juan Fernandez Archipelago has been selected for the site level work due to its vulnerability to existing IAS; its highly significant global biodiversity; the still viable populations of endemic species and the interest of local authorities to develop an effective and integrated IAS control system. Furthermore its classification as a national park (1935) and UNESCO Biosphere Reserve (1977) provides a land-use-restriction category that will favor IAS control. This is a particular opportune moment for the advancing the pilot JFA following the tsunami related to the March 2010 8.8 earthquake. The tsunami pushed a quarter of a mile into the Robinson Crusoe Island and affected 18 hectares of the Biosphere Reserve disrupting ecological balances. An immediate danger is the increase of IAS such as rats and birds feeding on trash and infesting debris washed inland. If the island's inhabitants resettle to higher grounds, further damage to the ecosystem and to endemic species will likely ensue. The tsunami destroyed a high percentage of buildings including the city hall and Chilean navy station. The re-construction process has been officially launched recently

⁴ COCEI members: Ministry of Agriculture [National Forestry Corporation (CONAF), Agriculture and Livestock Service (SAG), Office of Agrarian Studies and Policies (ODEPA)], Ministry of Defense [Directorate General of the Maritime Territory and Merchant Marine of the Chilean Navy (DIRECTEMAR), Chilean Air Force (FACH)], Ministry of Economy [Fishing Sub-secretariat (SUBPESCA), National Fishing Service (SERNAPESCA)], Education Ministry [The National Natural History Museum (MNHN)] and Ministry of Foreign Affairs [Directorate for Environmental, Antarctic and Maritime Affairs (DINA-MAR)].

(August 11th 2010) and will require supplies, materials, and manpower from continental Chile arriving via ships. On the one hand this will potentially increase IAS introduction but on the other it also provides the opportunity to ensure that IAS control approaches are incorporated into new infrastructure.

12. **Component 1: Building enabling frameworks to combat IAS threatening biodiversity conservation.** Under this component the project will develop a framework at the systemic level to guide integrated IAS in Chile and provide the enabling conditions for intervention at regional level and in vulnerable ecosystems. A key element will be the definition of a National Integrated Action Plan of Invasive Species with clear institutional responsibilities, goals, targets, costs, timelines and criteria to minimize IAS risks and impacts in different Chilean ecosystems. To enable the development of this Plan, and lay the ground work for its implementation, the project would complete baseline studies and define priorities for IAS control based on numbers, aggressiveness, tolerance levels, species control feasibility and risk assessments that include considerations on increased risk of IAS due to climate change. It would develop analysis, evaluations and costings for surveillance and control mechanisms for priority IAS drawing on the lessons from the JFA pilot. It would also identify financial mechanisms to implement these approaches including increased Government budgetary allocations following the awareness raising in component 3; levies such as inspection fees; Trust Funds and where relevant links to financial mechanisms for protected area management. In addition studies to support the harmonization of relevant laws and regulations will be undertaken to ensure consistent practices across sectors; and new norms developed to control pathways of IAS introduction including handling of goods and inspections between regions in continental Chile and the continent and islands.

13. **Component 2: Integrated IAS governance piloted in the Juan Fernandez Archipelago (JFA).** This will develop an integrated IAS governance system for JFA that incorporates prevention; eradication, control and mitigation and provides a ground-tested model for replication in the country particularly in islands ecosystems. The focus is on addressing the pathways of IAS to the JFA and improving management frameworks to prevent the introduction of species and spread to vulnerable areas. The main investments (60-70% of GEF resources for this component) will be on prevention options and systems. They include developing an IAS baseline that details, numbers, populations and the pathways of IAS introduction; developing inspection and quarantine measures for controlling IAS introduction to and within JFA, working with local and national authorities to establish standards for practices in the transport and tourism sector for IAS control and setting up cost-effective inspection for surveillance of these pathways; developing an early warning system for rapid detection of new IAS and implementing protocols to control IAS spread within the JFA. For containment of existing IAS, this component will implement site specific control and eradication pilots to provide ground based data on different approaches so that accurate costing and feasibility can be determined and be incorporated into an integrated action plan for the JFA. Target species and populations will be selected to provide maximum benefits to endangered biodiversity of global significance. To be defined in further project preparatory the demonstrations may target goats, rabbits, rats, and blackberry amongst others and will consider: (i) aggressive invasives for which eradication, control or mitigation methods exist but require testing under JFA conditions; (ii) eradication of small populations to test the effectiveness of measures for replication to larger campaigns; (iii) determining most cost-effective methods of control for invasive species populations for which eradication is not considered to be feasible, (iv) detecting least cost protection methods through combinations of mitigation and control. Drawing from these demonstrations and the up-dated baseline and inspection studies, a JFA integrated IAS management strategy will be developed. The project will work with relevant local and national authorities to approve this and identify long term financing needs and sources of funding along with regulatory processes required for its implementation.

14. **Component 3: Institutional and individual capacity and awareness strengthening.** This will strengthen the institutional capacities of governmental agencies and their staff to undertake the roles defined in the IAS Plan including enforcement responsibilities and new practices in economic sectors particularly transport. Also it will increase IAS awareness of these governmental agencies and of private sector and civil society at the local level. This will include: (i) finalizing and strengthening a coordination mechanism to optimize institutional collaboration on IAS; (ii) targeted training for government agencies on the new Plan, on regulations, protocols and best practices for IAS control; (iii) setting up databases on IAS for key governmental agencies at the national level and in JFA to increase their IAS management and decision making capacities on the information from baselines studies in Component 1 and 2; (iv) prepare and distribute guides with best practices on IAS management; (v) deliver a national level awareness campaign on the IAS threat and the vulnerability of Chilean ecosystems to them; (vi) increase awareness on IAS in civil society in

JFA to foster participation in IAS control; (v) upgrade tourism services in JFA for control of the IAS threat (reception structure, guided visits; brochures; educational material etc JFA);

B. 2. INCREMENTAL /ADDITIONAL COST REASONING AND ASSOCIATED GLOBAL BENEFITS:

15. Without the project, the business-as-usual scenario is that Chile's biodiversity will continue to be threatened by the increasing introduction, establishment and spread of IAS. This includes areas with biodiversity of high global significance. Deficiencies in the regulatory framework and institutional mechanisms to manage practices in production sectors that are pathways of IAS dangerous to biodiversity (trade, transport and tourism) and insufficient cross sectoral coordination to control IAS spread within the country, would result in the continued growth of the IAS threat and depletion of biodiversity of global and national importance. The GEF project will address the barriers to effective IAS management for biodiversity conservation in Chile. In doing so it would influence production practices employed by economic sectors, and human behavior in insular ecosystems where biodiversity is being threatened by the spread of alien invasive species. This would result global benefits both in the short and longer terms.

16. The alternative scenario represents a major contribution to safeguarding globally important biodiversity reducing vulnerability of native and endemic species in Chile to the IAS threat. Surveillance of trade and travel between regions in continental Chile and between these and its islands together with the uptake of new handling and transportation standards would reduce the risk of entry of IAS into vulnerable ecosystems across Chile thus reducing the threat to constituent biodiversity. These include mountain areas, large stands of habitat in the national protected areas system and islands where species threatened by IAS include the native forest of *Notofagus* of Tierra del Fuego Island (by beavers), the native flora and birds of the San Felix and San Ambrosio Islands (Desventuradas), the native flora and the endangered Pinkfooted shearwater bird in Isla Mocha and endemic ferns of Easter Island. Institutional coordinating mechanisms and strengthened capacities at the national level would optimize the current installed capacities for IAS and facilitate implementation of contingency plans for IAS emergencies thereby avoiding the spread of new IAS to levels that would endanger these native and endemic species. Specifically within JFA the increased awareness of visitors and residents of the IAS threat and of new transportation procedures and tourism controls would reduce the entry of IAS into JFA and contain their expansion within the islands. Control and eradication demonstrations would reduce populations of key aggressive IAS within the JFA and provide knowhow for up scaling control campaigns in the longer-term. This would reduce pressure on endemic plants species from invasive herbivores (eg rabbits) and from overcrowding (e.g. blackberry). 62% of the vascular plants are endemic to JFA and include emblematic species such as endemic trees from the *Myrceugenia*, *Fagara*, *Coprosma* and *Drimys gerera*, and the Juan Fernández cabbage tree (*Dendroseris* spp.). Conservation of flora in turn will protect habitats key for endemic fauna such as the only humming bird species known from oceanic islands. Pressures would also be reduced on other native birds by controlling invasives that feed on their eggs (rats and coati) enabling an increase in reproduction success for example in species such as the Masafuera rayadito as well as sea birds that are not endemic but have their principal nesting sites on the islands (*Puffinus creatopus*, *Pterodroma longirostris*, *Pterodroma externa* y *Pterodroma defillippiana*). Financed IAS protocols would reduce the spread of IAS within the JFA and contain populations below thresholds that endanger endemic species and their habitats thereby delivering additional protection to the unique biodiversity of the JFA.

17. The requested GEF support represents a cost-effective approach to generate GEB. Chile's existing infrastructure and regulatory framework is strong for controlling exotic species dangerous to economic sectors. Although this does not include specific measures for IAS that threaten biodiversity it does form a solid foundation on which the proposed project can build. It is thus expected that with the proposed resources and building on existing structures and institutions much can be done to improve the contribution of IAS management to biodiversity conservation in Chile. Furthermore the project has been designed specifically taking into account cost effectiveness by: (i) operationalizing coordination mechanisms that will optimize existing institutions and their staff input to the IAS challenge; (ii) harmonizing regulation and reduce overlap of functions thus reducing inefficiencies and (iii) developing an National Action Plan for Integrated IAS control that will be based on priority species and have well defined actions drawing from a the range of prevention, control, eradication and mitigation approaches. The mix and sequences of these will be based on cost-effective analysis and risk assessment. Further, they will be ground tested in an insular setting where IAS populations are at levels that permit containment and native habitats restoration within the resources and time constrictions of a project.

B.3. THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT

18. In terms of the JFA pilot, rats and mice constitute a potential vector of epidemic disease that could affect public sanitation. Control of these through an integrated IAS system will improve public health in the islands delivering an important social benefit for the inhabitant's life quality. In addition "special interest tourism" attracted by its outstanding biodiversity values is an important resource for the archipelago. By reducing the IAS threat these values will be maintained increasing revenue in the long term. During the project the work on IAS control will maintain and potentially increase visitor numbers with scientific purposes thus contributing to the reactivation of the local economy in the aftermath of the tsunami. The JFA based demonstrations for IAS control also include the training of local tourism guides thus generating employment option. In this and in relevant activities across all components special attention will be placed on gender equity, and where possible specifically targeting women and youth in relevant IAS capacity-building actions. In the long term the presence of a consolidated IAS framework will provide socio-economic benefits in other areas of Chile where IAS are also impacting on economic activities, for example in forested areas where the economic toll of beavers is increasing.

B.4 RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES AND MITIGATION MEASURES

Risk	Level	Mitigation Measures
National and regional authorities may not include measures to IAS control in institutional priorities.	Med	The NSBAP, developed through a participatory process, identified the risk of IAs and established the need for IAS control. Thus there has been initial agreement from a wide range of institutions on the importance of improving IAS management. The project will specifically address the barriers that are impeding this. Amongst these the provision of regulatory frameworks, management tools such as Protocols and specific control mechanism and financial measures for their implementation will facilitate the uptake of measures by institutions. The project will further mitigate this risk by providing targeted awareness programmes and training to staff to enable the undertaking of roles outlined in the IAS National Action Plan also to be developed by the project.
Local JFA communities and stakeholders from key sectors (eg tourism) are not fully engaged and do not adopt the proposed IAS control practices especially given the recent tragedy	Low	During the preparation of this PIF consultations were undertaken with local government (Mayor and Municipal Council) and civil society including the fishers union. These consultations held both before and after the tragedy of the tsunami, confirmed the interest at the local level for this project. Furthermore at the national level priority has been given to all project related to those areas struck by the disaster. The reconstruction efforts in JFA have started and are seen by some as a new opportunity to develop specialized tourism to increase revenues in the islands. The project will work with these efforts to ensure that IAS control is adequately addressed in reconstruction. This includes studies to determine the most cost effective ways of inspection of goods and people to the JFA; an awareness building programme on the value of unique BD and the threats to this from IAS; training programmes for local residents to act as tourist guides recognizing careful IAS controls; and the upgrading of services at a visitor centre.
Financing for strengthened IAS containment may not exist.	Med	The project will support the necessary activities to set up the National Action Plan for the Control of Invasive Species which will include the costing of proposed actions and targets and the definition of a Financial plan that identifies funding sources for their implementation. These include mechanisms such as inspection fees; Trust funds; access to carbon related markets. Further the capacity building actions in Component 3 will provide the basis to negotiate for increased budgetary resources.
Climate change may increase the threat of IAS	Med	Under changing climates the threat of IAS in vulnerable ecosystems where invasive species are more resistant to new climate conditions and through increased risk of introduction through climatic events such as increased floods and rainfall increase. Also as climatic conditions change native populations may come under increased stress and reach coping level limits becoming less resilient to the threat of invasive. The project will address this by including climate change as one of the variables to consider in the risk analysis that would form the basis for determining priorities for IAS management. Proactive responses through early warning systems and funded protocols would also provide a more robust IAS system that could contain the increased threat envisaged with climate change.
Restoration of endemic species may not be possible after JFA demonstrations.	Low	There are enough seed banks and tree nurseries in Chile and/or the JFA to restore at least some of the most important endemic flora species. In the case of endemic fauna, there are some centres that are breeding specimens.

B.5. KEY STAKEHOLDERS INVOLVED IN THE PROJECT

19. Key institutional stakeholders will be the 9 government agencies that constitute the COCEI (footnote 4). This includes staff both at national and regional levels that will be the primary leaders in the short term for implementing the new IAS Action Plan and protocols. Private sector stakeholders will play a role in the medium term particularly those

involved in trade, transport and in tourism in Juan Fernandez. Over the longer term, and as the new regulatory systems are enacted, agricultural producers will be players as new protocols and production practices are determined for control of IAS dangerous to biodiversity and for which agricultural lands and practices are pathways for dispersion. Civil society will play an active part during the project with NGOs and the boarder society participating in IAS governance in JFA both in control demonstrations and also in warning systems for early detection of new introductions.

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

20. The new Ministry of the environment will enter into operation on October 1st 2010 and within this the Division of Natural resources and Biodiversity will be the executive Secretary and coordinator of the National Operational Committee for Invasive Species Control that includes 9 line Ministries and agencies. The project will consolidate this Committee and this will be the key mechanism through which inter-ministerial coordination for the development and implementation of the NIASIP will take place including coordination with on-going baseline investments in IAS surveillance and inspection in Chile. The proposed project is thus nested within public institutional set up and the results will directly strengthening public policy for IAS management in Chile. At the level of operations within Juan Fernandez the project will be directly coordinated with the municipality and with the regional staff of the national agencies in JFA with IAS mandates. Government agencies and NGOs that have undertaken IAS control pilots in JFA in the baseline are already confirmed partners and co-funders of this project and will also promote coordination at the ground level. This includes CONAF's efforts, Chilean Ornithological Society (UNORCH) and the OIKONOS Foundation, on the eradication of the blackberry and the "maqui" in some areas of Alejandro Selkirk Island and in "Plazoleta del Yunque" at Robinson Crusoe Island which is the nesting habitat of the Juan Fernandez Firecrown. It also includes the control program for the control of the German Wasp run by Agricultural and Livestock Service (SAG). At the regional level the project will coordinate with on-going work of the IABIN network and ensure that work undertaken on databases will build on and complement the I3N. At the international lesson-sharing will be sought the Galapagos IAS project now in its final stage. Coordination arrangements will be detailed during further project preparation.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

21. UNDP was selected by the GoC as GEF implementing agency for this project given the comparative advantage as a development agency to address 'mainstreaming' of biodiversity into production sector practices. Its work on biodiversity and sustainable environmental management through past and ongoing initiatives at regional and national level has resulted in a strong cooperation relationship with the GoC that will enhance support to governmental executing agencies and stakeholders participating in this initiative. In addition, UNDP's experience on developing governance frameworks and inter-sectoral coordination will be essential in this project. It will also benefit directly from UNDP's experience in delivering support for IAS management frameworks elsewhere in the world including Socotra, Seychelles, Mauritius, Sri Lanka and the Galapagos.

C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:

22. UNDP's comparative advantage lies in its capacity to broker finance from national and international sources, to assist countries to meet their environmental finance needs. In line with UNDP's mandate as chair of the UNDG it plays a key role in the leveraging of resources from a range of funding sources in the construction of a project funding package. UNDP has brokered US\$ 6.4 million for this project from multiple sources, to be confirmed during further project preparation. This includes a US\$ 50,000 UNDP TRAC allocation to Chile. In kind UNDP support will also be provided through its broader governance portfolio and through the range of technical staff working in the environment.

C.2 FIT IN GEF AGENCY'S PROGRAM AND STAFF CAPACITY TO FOLLOW UP PROJECT IMPLEMENTATION:

23. The Project is in line with the 2011-2014 U.N. Development Assistance Framework (UNDAF) agreed between the Government of Chile and the U.N. System in Chile. This defines 5 priority areas of work. One focuses on developing policies that support environmental and energy sustainability to strengthen the efforts to conserve natural resources and biodiversity. The UN commits to the development of technical and institutional capacities in support of the newly created environmental institutions (i.e. the new Ministry of Environment). Additionally, the UNDP's 2011-2014 Country Programme and its Action Plan (currently under discussion with the government of Chile) is aligned with the UNDAF, and therefore establishes the protection of biodiversity conservation as one of its key areas of work. In this context, the UNDP commits to support the implementation of pilot projects on biodiversity management and to support


capacity building both at the local and national level. At the national level UNDP has a strong environment team that will provide support to project implementation. This includes two environmental economists (both with Phd) one with 20 years experience in environmental management issues and leading relevant projects for the GoC and the other with 10 years experience, including work in the World Bank. The team also counts with a lawyer with a Master degree in environmental law, and a specialist in international cooperation (with an MA in Decentralized International Cooperation: Peace and Development and another MA in International Economic Law and Integration). They will receive technical support from the specialists in UNDP's Environment and Energy Practice in the Latin American Regional Service Centre based in Panama. Also support will be provided through UNDP's global network of specialists that will provide technical backstopping as required.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT ON BEHALF OF THE GOVERNMENT:

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Ximena George Nascimento	Operational Focal Point	CONAMA	August 27, 2010

B. GEF AGENCY CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (MM/DD/YYYY)	Project Contact Person	Telephone	Email Address
John Hough, UNDP-GEF Deputy Executive Coordinator		September 16, 2010	Helen Negret	507- 3024508	helen.negret@undp.org

Annex A: Responses to GEF Sec Review of PIF

GEF Sec Review Questions and Agency Responses

Agency Comparative Advantage

Questions: Please provide an indicative amount of co-finance that the Agency will bring to the project. Please specify the size of the environment team in the country office in Chile and their specialties that will be involved in the supervision of this project.

Responses: UNDP is a broker of finance, from national and international sources, to assist countries to meet their environmental finance needs. UNDP has brokered US\$ 6.9 million for this project from multiple sources, to be confirmed during further project preparation. This includes a US\$ 50,000 UNDPTRAC allocation to Chile. The Chile CO environment team counts with two environmental economists (both with PhD) one with 20 years experience in environmental management issues and leading relevant projects for the Government of Chile and the other with 10 years experience, including work in the World Bank. The team also counts with lawyer with a Master degree in environmental law and another specialist in international cooperation (with an MA in Decentralized International Cooperation and another MA in International Economic Law and Integration). All have had wide experience providing oversight to environmental projects in Chile and will be part of the supervision team for the proposed project. Relevant sections of the PIF have been adjusted.

Project design related questions

Baseline investments: Questions: Please provide greater detail on current baseline investments in IAS management and control within the project boundary that the GEF investment will build upon and complement. This is addressed only in one sentence in the box on page 5, but please provide a more ample description of the activities and an estimate of the amount of resources being invested. The problem statement provided is adequate but not well linked to current activities and investments. Please elucidate the link more clearly.

Response: The baseline actions include Government investment through its national institutions related to inspection, quarantine and protocols for IAs control as well as specific action to control and eradicate populations of aggressive IAS in vulnerable ecosystem such as Juan Fernando. These are described in each of the barriers on pages 5 and 6 of the PIF and also again in paragraph 20. They will be further detailed along with cost estimates during further project development in accordance with guidance on the incremental reasoning for GEF project development. At this stage of project development an estimate can be given for a key component of this baseline line which is Chile's strong inspection system at the main airports and ports for arrival to continental Chile from other countries. This has estimated annual recurrent costs of US\$ 15million. As indicated in the PIF this baseline action is focused on those species that are of risk to agriculture and human health. Furthermore these do not include inspection of IAS pathways to Chile's islands or internally between regions. The result is a growing risk of IAS endangering biodiversity being introduced into the country and their spread within it particularly to its islands where ecosystems are especially vulnerable. The project will build on this baseline by developing risk assessments to identify priority IAS for prevention to avoid the threat of bio-invasion and develop guides to ensure inspection for these species. It will also expand the existing baseline of protocols to ensure that early action can be taken to contain any such species if they are introduced despite inspection systems. Furthermore under the alternative scenario the the baseline regulatory framework will be expanded and know-how provided for improving procedures that reduce the risk of introduction in the practices of tourism, trade and transport that are the main pathways of introduction. Also it will expand baseline inspection putting in place procedures at entry point to Chile's islands and within the country to further strengthen prevention option. In addition to this broader baseline in JFA the proposed project will build on baseline actions that control exotic plants such as zarzamora and maqui, control measures of the insects (e.g the German Wasp (*Vespula germanica*) and of neutering of feral cats and domestic cats: investments estimated at US\$ 350,000 annually.

Project framework: Question: Given that the GEF-5 BD strategy does not place a strong emphasis or priority on control and eradication of IAS given that it is not particularly cost-effective, please specify how much of the GEF budget and co-financing is being directed toward these activities under project component two.

Response: Component 2 will establish an integrated system for IAS specifically for JFA that will provide direct benefits to globally significant biodiversity and supply tested approaches as an input to the national level IAS framework and for replication to other islands. The focus is on addressing the pathways of invasive species to the JFA and improving management frameworks to prevent the introduction of species and spread to vulnerable areas. The main investments are on prevention options and systems (Inspection and quarantine measures for controlling IAS introduction to and within JFA; Early warning system for rapid detection of new IAS in JFA; Protocols tested to control IAS spread within the JFA and an Integrated IAS Action Plan for JFA) and account for between 60 and 70% of the GEF contribution to this component. The remaining two outputs are also key to an integrated IAS management framework as they seek to determine the cost and effectiveness of two approaches to IAS management that make up an integrated system- that of controlling key IAS populations to levels that do not endanger endemic species and eradication of key IAS that

endanger endemic species. For some IAS control of populations below critical levels is often the most cost effective way of reducing the risk of spread to new areas. Similarly in some cases especially small or very localized populations of endemics the most cost effective approach to IAS management in the long term can be eradication rather than maintaining permanent control programmes. The demonstrations will provide ground based data on these two approaches so that accurate costing and feasibility can be determined and be incorporated into an integrated action plan for the JFA that assesses risks, defines costs and time scales for the range of IAS challenges in the archipelago and outlines the best approaches and funding needs for each. An estimated 30% of the GEF resources of this component (and < 15% of the total GEF budget) will be used for these demonstrations that will provide a key input to defining the overall management plan and thus contribute directly to the GEF focal area indicator - *improved management frameworks to prevent control and manage alien invasive species*. A slightly higher proportion of co-funding for component 2 is being allocated to these two outputs given that GEF has prioritized the use of its resources to solutions at the systems level. The full details of co-funding allocation to the demonstrations will be defined during further project development once the species have been selected

Incremental case: Question: The incremental activities are appropriate to address the identified problem, however, only if the focus of the intervention is appropriately targeted to the establishment of systems. Thus, clarification on the level of investment being placed in systemic solutions as opposed to site eradication is important as noted above, please clarify

Response: As indicated above the focus of the intervention is targeted to the establishment of systems for IAS management. While there is a small investment in site demonstrations for control and eradication (<15% of budget) these are being undertaken principally to determine feasible and cost effective management approaches to feed into systemic solutions for an integrated IAS management framework in the Juan Fernandez Archipelago. This will enable the deployment of the most cost effective and relevant IAS actions over the long term in the islands. It will also feed into the national framework for integrated IAS management generating further benefits across Chile (see response below). The selection of species for these demonstrations will be completed during further project preparation but will include the potential direct benefit to biodiversity by removing pressures on endemic flora and fauna either from reduced competition of overcrowding or predation pressures according to the species that is selected for demonstration. The relevant section of the PIF has been adjusted accordingly.

Global environmental benefits: Question: The PIF describes benefits to all of Chile, which may happen sometime in the future if the experiences from this project are replicated in other islands and the mainland and if the NIAPIS is fully implemented. However, it appears that the project is only focusing on establishing the NIAPIS, establishing protocols etc. Therefore, given the targeted focus on the Juan Fernandez Archipelago please augment the current global benefits description and provide more details on the global benefits to be generated from the intervention on JFA

Response: The global benefits to be derived through this project stretch beyond the Juan Fernandez Archipelago. In the baseline scenario the invasive species threat to vulnerable ecosystems particularly islands but also on the mainland (eg high mountain areas and protected parks where large areas of native habitat are still in tact) will continue as there is currently no inspection of the main pathways for introduction (tourism; trade and transport) nor do their practices of these sectors take into account the danger of IAS to biodiversity (eg handling procedures of goods; specific rules of conduct for tourists etc). Furthermore as there is no early warning systems for these IAS, detection of the new species may only occur when populations are high and control measures less feasible. Through the project at the national level the NIAPIS, the Protocols, institutional strengthening and awareness campaigns will reduce the rate of introduction of new species to continental Chile and their spread abating the increasing risk of IAS on biodiversity. At the regional levels IAS risk assessment results, best practices for effective control practices and defined funding sources will be incorporated into regional biodiversity action plans and with this improved IAS control will be deployed to the vulnerable ecosystems in each region starting primarily with protected areas. During further project development more details will be included on these vulnerable ecosystems on the continent where these benefits will occur first. At the PIF stage emphasis was placed on identifying the islands ecosystem where the specific JFA model will be replicated as these are most likely to benefit during the life cycle of the project through new regulatory frameworks that will enable inspection internally in Chile and set new standards for transport, trade and tourism to these islands. Global benefits in these ecosystems include increased protection to the native forest of *Notofagus* of Tierra del Fuego Island which are threatened by beaver invasion, to the native flora and birds of the San Felix and San Ambrosio Islands (Desventuradas), to native flora and the endangered Pinkfooted shearwater bird in Isla Mocha and to endemic ferns of Easter Island. In terms of Juan Fernandez the estimated reduction of new introduced species and the containment of the spread of existing species through new handling procedures, direct demonstration and improved awareness, will reduce pressure on an unique ecoregion. The selection of species for demonstration will be based on potential for direct delivery of GEBs benefits and will be finalized in further development but may include rats ,cats, rabbits, goats, coati, zarzamora, maqui in the Robinson Crusoe and Alejandro Selkirk Islands. Benefits will be achieved by reducing pressures from invasive herbivores (eg rabbits) and from overcrowding (e.g. blackberry). 62% of the vascular plants are endemic to JFA and benefits will be incurred in emblematic species such as endemic trees from the *Myrceugenia*, *Fagara*, *Coprosma* and *Drimys gerera*, and the Juan Fernández cabbage tree (*Dendroseris* spp.). Conservation of flora in turn will protect habitats key for endemic fauna such as the only

humming bird species known from oceanic islands. Pressures would also be reduced on other native birds by controlling invasives that feed on their eggs (rats and coati) enabling an increase in reproduction success for example in species such as the Masafuera rayadito as well as sea birds that are not endemic but have their principal nesting sites on the islands (*Puffinus creatopus*, *Pterodroma longirostris*, *Pterodroma externa* y *Pterodroma defillippiana*).

Stakeholders: Question: PIF refers to footnote 5 as a reference to the key stakeholders. Since footnote 5 does not exist, are you referring to footnote 4 as the list of stakeholders? Please clarify. Please be more specific as to what entities are the key stakeholders outside the Government agencies

Response: The governmental institutional stakeholders will be the 9 government agencies that constitute the COCEI indicated in the footnote 4 of the PIF (PIF has been corrected). In addition a key stakeholder will be the municipal government of Juan Fernandez and its mayor that has confirmed support to the JFA based initiatives of this proposal. Non-governmental stakeholders include the residents of Juan Fernandez that will be involved both as part of the early warning systems and that take part in new approaches to tourism (e.g guided tours). There will also be a number of non-governmental stakeholders including the collaborating partners and co-funders OIKONOS, Biodiversa, Union de Ornitologos de Chile and Island Conservation. A broader range of stakeholders will also be important as the target of awareness campaigns at national and JFA levels including private sectors in particularly in tourism and transport (for example hotels and hostels in JFA, restaurants , Lassa and ATA airlines, and the Chilean navy).

Risks: Question: please also discuss whether climate change is seen as a risk and how the project proposes to address it vis a vis IAS control and management within the action plan that the project will develop.

Response: Climate change is likely to increase the threat of IAS in vulnerable ecosystems where invasive species are more resistant to new climate conditions and also through increased risk of introduction due to increased extreme climatic events such as increased floods and storms. In addition as climatic conditions change native populations may come under increased stress and reach coping level limits becoming less resilient to the threat of invasive. The project will address this risk by including climate change as one of the variables to consider in the risk analysis that would form the basis for determining priorities for IAS management. Proactive responses through early warning systems and funded protocols would also provide a more robust IAS system that could contain the increased threat envisaged with climate change. The relevant section of the PIF have been revised accordingly

Coordination with other related activities: Question: Please more clearly describe the proposed collaboration with existing projects at the higher level of the NIAPIS and the work in the JFA.

Response: The new Ministry of the environment will enter into operation on October 1st 2010 and within this the Division of Natural Resources and Biodiversity will be the Executive Secretary and Coordinator of the National Operational Committee for Invasive Species Control that includes 9 line Ministries and Governmental agencies. The project will consolidate this Committee and it will be the key mechanism through which inter-ministerial coordination for the development and implementation of the NIASIP will take place. The proposed project is thus nested within public institutional set up and the results will directly strengthening public policy for IAS management in Chile. In addition the management of IAS that affect biodiversity will be the specific role of the National Service for Protected Areas and Biodiversity, proposed for 2011, and this will be the first time a Government Institution has IAS as a specific part of their mandate. The final implementation arrangements for the project will take into account these emerging institutional changes and ensure that coordination occurs at this higher level. At the level of operations within Juan Fernandez the project will be directly coordinated with the municipality and with the regional staff of the national agencies with IAS mandates. Furthermore the main partners that have undertaken IAS control pilots in JFA in the baseline are already confirmed partners and co-funders of this project thus providing vehicles for coordination at the ground level.

Project Financing

Questions: Please clarify, as noted above, the amounts invested in component two on control and eradication and the biodiversity outcomes that will be generated through this investment. Please clarify how much funding is being invested in eradication as mentioned above. In addition, please provide an indicative amount of co-financing UNDP will provide to the project

Response: Please see the responses on these issues under the questions on the project framework, Global benefits and agency comparative advantages.