REQUEST FOR: CEO ENDORSMENT
PROJECT TYPE: FULL-SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title: Conservation and sustainable use of agro-biodiversity to improve human nutrition in five macro eco-regions			
Country(ies):	Bolivia	GEF Project ID:[1]	4577
GEF Agency(ies):	FAO	GEF Agency Project ID:	613864
Other Executing Partner(s):	Ministry of Environment and Water (MMAyA) through its Executing Entity for Environment and Water (EMAGUA) and the General Direction of Biodiversity and Protected Areas (DGBAP) under the Vice-Ministry of Environment, Biodiversity, Climate Change, and Forest Development (VAM)	Submission Date:	February 05, 2014
GEF Focal Area (s):	Biodiversity	Project Duration(Months)	48
Name of Parent Program (if applicable): ➢ For SFM ☐		Project Agency Fee ($):	260,000

A. FOCAL AREA STRATEGY FRAMEWORK[2]

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Co-financing ($)
BD-2	2.1 Increased sustainable managed landscapes and seascapes that integrate biodiversity conservation	2.2 National and Subnational land-use plans (15 management plans/6,000 hectars) that incorporate biodiversity and ecosystem services valuation 2.3. certified production landscapes and seascapes (1,000 hectars)	GEF TF	1,846,268	9,068,952
BD-2	2.2 Measures to conserve and sustaible use biodiversity incorpoated in policy and regulatory frameworks	2.1. Policies and regulatory frameworks (3 policies and 3 programmes/projects) for production sectors	GEF TF	627,075	4,620,203
		Subtotal		2,473,342	13,689,155
		Project management		126,658	425,866
		Total project costs		**2,600,000**	**14,115,021**

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the Focal Area/LDCF/SCCF Results Framework when completing Table A.

B. PROJECT FRAMEWORK

Project Objective: Conserve agrobiodiversity in-situ in five macro eco-regions and improve the livelihoods of local people by mainstreaming the valuation, conservation and sustainable use of agro-biodiversity in national policies, regulatory framework, and programmes (health, education, rural development and food security), provide market incentives, and a process of awareness-raising and training in the use of agro-biodiversity in sustainable management of natural resources

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount ($)	Confirmed Co-financing ($)
1. National Information System on native agro-biodiversity, its nutritional properties and resilience to climate change	TA	1.1 Increased available and easily accessible data grouped per macroregion for policy makers, consumers and local communities on Agrobiodiversity, food consumption and local native crop species resilient to climate change	1.1.1 A National Information System on native Agrobiodiversity, nutritional value and adaptability to climate change easily accessible and available to policy makers, consumers and local communities (Inserted and uploaded into the Information System at least 1,000 new documents/data collected within the fourth year of the project) 1.1.2 Food sources of Agrobiodiversity evaluated through the use of nutrition indicators for biodiversity (a. food composition and, b. food consumption) 1.1.3 At least 10 local crop/plant ecotypes important for food security and nutrition selected (through a gender-sensitive participatory approach) in each macro eco-region and their characteristics analyzed in relation to nutritional content, resilience to climate change and genetic erosion threats 1.1.4 Database on the nutritional content of agricultural biodiversity, in accordance with international norms and standards (INFOODS-FAO) developed	GEF TF	385,576	4,550,610
2. Ensure support for in- situ conservation of agro-biodiversity linking the selected ecotypes to markets	TA	2.1 In-situ conservation of selected local ecotypes important for nutrition and food security is practiced in 50 communities/6,000 ha in 5 macro eco-regions (indirectly 125 communities/15,000 ha will be impacted after the end of the project through	2.1.1 Assessment of local methodologies and practices on conservation of Agrobiodiversity and classification of 100 cultivated ecotypes/varieties, wild species and native seeds and associated traditional knowledge in five macro-ecoregions 2.1.2 At least 50 communities practice development and implementation of 15 Management	GEF TF	1,243,196	4,518,342

		scaling up) 2.2a Income generated (approximately US$ 500/year/family representing a 25% increase in annual income) in participating communities (3,000 farming families) from production, processing and marketing of agro-biodiversity-friendly and nutrition labeled products from selected crop/plant ecotypes 2.2b 1,000 ha under agrobiodiversity production standards and nutrition labels (monitored through the application of the GEF BD-2 tracking tool). Partner Ministries committed to facilitate the extension to 2,500 ha at the end of the project	Plans and participatory monitoring system for in situ conservation and sustainable use of selected underutilized crop/plant ecotypes and their wild relatives 2.1.3 35 new best practices for cultivation and management of selected crop/plant ecotypes documented (based on community implementation in the 5 macro eco-regions under output 2.1.2) including: local seed multiplication, conservation, improvement and exchange; pest and disease control, and strategies for sustainable production intensification 2.1.4 Strategy and financed action plan for MMAyA and MDRyT to scale up the in-situ conservation and sustainable use model developed by the project (in at least 125 additional communities) 2.1.5 Permanent Monitoring Centre focused on the selected species of cultivated and wild varieties, ensuring continuous monitoring of genetic and climatic trends established 2.2.1 Agrobiodiversity-friendly product certification and origin and nutrition label mechanism developed and used by farmers from 50 communitites for selected crop ecotypes based on SENASAG product standards and agreed criteria for agrobiodiversity production practices. 2.2.2 Market opportunities for food products from local Agrobiodiversity analyzed and market links for Agrobiodiversity-friendly food products strengthened through a "Participatory Market Approach". (On completion of the project, at least 5 agrobiodiversity food products with added value and agrobiodiversity and nutritional labels have strengthened market linkages measured in increased sales).			
3.	TA	3.1 Measures to conserve	3.1.1 Multi-sectoral Platform at	GEF	246,062	1,480,401

Mainstreaming the conservation of agro-biodiversity in policies and regulatory frameworks, especially in relation to food security and nutrition		and sustainable use Agrobiodiversity incorporated in agriculture, nutrition, health, education and food security policies, programmes, and regulatory frameworks. (Scores on policy framework incorporating conservation of agrobiodiversity in the GEF tracking tool increased to 10 (out of 12 possible scores. Baseline score: 4)	national level established and operating within CONAN to promote and monitor the integration of agrobiodiversity into policies and programmes in the agriculture, nutrition, education, health and food security sectors 3.1.2 Three new/adapted policies (Biodiversity Law, Law of the Rights of Mother Earth, Law 144/ Agricultural Community Productive Revolution Law) will be adopted and implemented to support conservation and sustainable use of Agrobiodiversity, considering its importance for nutrition, food security and health 3.1.3 Agrobiodiversity conservation and sustainable use mainstreamed into at least 6 programmes and projects implemented by Ministries member of the Multisectoral Platform at local and national level.	TF		
4. Communication and Capacity Building	TA	4.1 Increased awareness of conservation and sustainable use and the nutritional benefits of Agrobiodiversity (measured through survey documenting level of awareness among institutional staff, consumers and producers who were the target groups of awareness campaigns and training courses in the 9 departments of Bolivia). (30% of institutional staff, consumers and producers who were the target groups of awareness campaigns and training courses have awareness about the nutritional benefits of local agrobiodiversity, measured through two surveys on a sample group).	4.1.1 Promotional material on Agrobiodiversity conservation, traditional knowledge, innovations and practices, product standards and Agrobiodiversity and nutrition labels, incentives for production, dietary diversity and consumption benefits, including case studies and comparative analysis in five macro ecoregions of Bolivia, elaborated and disseminated. 4.1.2 National information campaigns for promoting the value of Agrobiodiversity as a resource for food security, through official and popular media, implemented 4.1.3 Producers, processors, local government technical staff trained in conservation, use and nutritional benefits of local agro-biodiversity through training events in the 9 departments of Bolivia 4.1.4 Capacities of key policy makers, and national government technical staff on the use of Agrobiodiversity in nutrition and food security, strengthened		314,256	1,935,201

			through: a) modules of training on the use of Agrobiodiversity in nutrition and health programmes, elaborated and carried out; b) Guidelines to improve the use of products from local Agrobiodiversity in traditional food systems, elaborated and promoted			
5.Monitoring and evaluation	TA	5.1 Project implementation based on results based management and application of project findings and lessons learned in future operations facilitated	5.1.1 Project monitoring system operating providing systematic information on progress in meeting project outcome and output targets 5.1.2 Midterm and final evaluation conducted 5.1.3 Project-related "best-practices" and "lessons-learned" disseminated through the project Information System and published	GEF TF	284,252	1,204,601
			Subtotal		2,473,342	13,689,155
			Project management Cost (PMC)[3]		126,658	425,866
			Total project costs		**2,600,000**	**14,115,021**

C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME ($)

Please include letters confirming co-financing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount ($)
National Government	The Ministry of Environment and Water (National Bioculture Programme)	Cash	8,528,030
National government	EMAGUA/DGBAP	In-kind	250,000
Local Government	Regional Autonomous Government of Chaco Tarijeño – Caraparí	In-kind	1,480,310
Local Government	Regional Autonomous Government of Chaco Tarijeño – Caraparí	Cash	2,037,681
CSO	The National Council of Quinoa Traders and Producers (CONACOPROQ)	In-kind	440,000
GEF Agency	FAO	Cash	1,379,000
Total Co-financing			**13,865,021**

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL, AREA AND COUNTRY[1] N/A

1 In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

[3] PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below

2 Indicate fees related to this project

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Co-financing ($)	Project Total ($)
Local consultants	809,532	900,000	1,709,532
International consultants	42,000		42,000

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? N/A

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF[4]

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Updates Reports, etc.

There have been no changes since PIF in the consistency with the NBSAP, the articles 342, 354 of the Consitution of Bolivia, the Programs Sustentar and ADEMAF and the "Plan Nacional de Desarrollo *Bolivia Digna, Soberana, Productiva y Democrática para vivir bien,* and the "Plan Sectorial Revolucionario Rural, Agrario y Forestal".

The following information on the policies and national development plans has been added in the FSP proposal.

The "*National Strategy for Conservation and Sustainable Use of Biodiversity in Bolivia (2001)*" includes actions for the conservation, maintenance, restoration and enhancement of the natural environment, and the establishment of mechanisms and procedures to coordinate these activities reflected in the sustainable use of rural development programmes. This strategy aims to reduce the degree of threat to biodiversity, ensuring its long-term maintenance, guiding the actions for conservation and use and promoting the participation of civil society.

Law 144, with regard to its policy of protection of genetic resources, states that "the State shall protect and ensure the conservation of the genetic heritage of agricultural biodiversity". Article 13, referring to genetic resources, establishes that the National Institute of Agricultural and Forestry Innovation - *INIAF*, is the organization responsible for ensuring the conservation and management in-situ and ex situ of genetic resources of agricultural biodiversity, wild relatives and microorganisms of the different eco-regions of the country, in order to avoid genetic erosion and ensure their availability as a source of genetic variability, and the first link in agricultural production.

Article 20 emphasizes local production for complementary school meals, favoring local food production, and specifying that the State at national level and the autonomous territorial entities according to their area of competence shall "Insert in the school curriculum, food and nutrition education, the importance of preferential consumption of safe, nutritious and culturally-appropriate domestic products, under the responsibility of the Ministries of Education, Health and Sports".

The Constitution also includes the State comprehensive rural development policy. The most significant objectives of the policy to which the project will contribute are: a) ensure food security and sovereignty, prioritizing the production and consumption of agricultural products in Bolivia, b) promote the production and marketing of agro–ecological products, c) establish sustainable policies and projects, ensuring land conservation and recovery and d) establish seed banks and genetic research centres.

Genetic resources prioritized for conservation and sustainable use are: those at greatest risk of genetic erosion; those with an economic potential owing to their properties or traditional uses; and those representing the productive and food basis of local communities.

Another significant change in the new Constitution of Bolivia lies in giving value to and systematizing local knowledge, and the establishment of a scientific culture, stemming from universal access to knowledge and

[4] For question A.1-A,7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question

technology, which constitute the main purpose of the new development model, incorporating local and indigenous knowledge into the field of scientific knowledge for evaluation and application in development.

In the area of nutrition, Article 27 of the Constitution, referring to food and nutrition policy, states as its objective "ensure that the Bolivian population has an adequate nutritional status, guaranteeing the consumption of varied food products covering nutritional requirements throughout the life cycle, by establishing and strengthening culturally- appropriate food and nutrition programmes and informative and educational activities for the Bolivian people on the nutritional values of food products and their preparation, according to specific standards".[5]

Similarly, Article 75 emphasizes that users and consumers have the right to reliable information on the characteristics and contents of the products they consume and the services they are using. In the case of Bolivia, with regard to nutrition information, this includes researching and introducing more data on the composition of biodiversity into the national databases and tables on the composition of food products; creating and using dietary assessment instruments which help to describe food intake, by species and varieties/breeds; and allow food labelling that promotes awareness of plant varieties and the animal subspecies consumed as food.

The most significant initiative on nutrition is the Zero Malnutrition Sector Programme, an organizational intervention that forms part of the structure of the Ministry of Health and Sports, which is compatible with the project in terms of the objectives pursued, intervening at Central, Provincial and Municipal levels under the political, inter-sectoral responsibility of the CONAN. The health and education sectors and their actions in the National Food and Nutrition Council with other sectors of production and plural economy, makes it feasible to integrate, monitor and evaluate actions through the Departmental Food and Nutrition Councils, *CODAN* within the departmental governments and *COMAM* in the municipalities.

A.2 GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

The proposed project will support the implementation of the GEF-5 Biodiversity Strategic Objective 2 "Mainstreaming Biodiversity in Production Landscapes/Seascapes and Sectors". In particular the project will support Outcome 2.1 through: a) assessing of local methodologies and practices on conservation of agrobiodiversity and classifying of cultivated ecotypes/varieties, wild species and native seeds and associated traditional knowledge in five macro-ecoregions; b) developing and implementing 15 Management Plans for in situ conservation and sustainable use of selected underutilized crop/plant ecotypes and their wild relatives, including participatory monitoring system. Furthermore, the project will contribute to the achievement of the Outcome 2.2 through mainstreaming the conservation of agro-biodiversity in policies and regulatory frameworks, especially in relation to food security and nutrition. Specifically, the project will support the adoption and implementation of new/adapted policies and programmes to support the conservation and sustainable use of agrobiodiversity, considering its importance for nutrition, food security and health. A Multi-sectoral Platform at national level will be established with the aim of supporting and monitoring the process of integration of agrobiodiversity into sectoral programmes and policies.

The proposed project will also strengthen the significant role that Bolivia is already playing in the CBD and international forums related to hunger, health and nutrition and the implementation of the Global Cross-Cutting Initiative on Biodiversity for Food and Nutrition, as mandated in the CBD COP8 decisions on the agricultural biodiversity work programme.

Project contribution to Aichi Targets

[5] Political Constitution of the Plurinational State of Bolivia 2009

Aichi Biodiversity Target	Related Project Outputs	Selected SMART Indicators
Target 1 - By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Output 4.1.2 National information campaigns for promoting the value of agrobiodiversity as a resource for food security, through official and popular media, implemented Output 4.1.3 Producers, processors, local government technical staff trained in conservation, use and nutritional benefits of local agrobiodiversity through training events in the 9 departments of Bolivia Output 4.1.4 Capacities of key policy makers, and national government technical staff on the use of agrobiodiversity in nutrition and food security, strengthened through: a) modules of training on the use of agrobiodiversity in nutrition and health programmes, elaborated and carried out; b) Guidelines to improve the use of products from local agrobiodiversity in traditional food systems, elaborated and promoted.	• Trends in awareness and attitudes to biodiversity (C) • Trends in public engagement with biodiversity (C)
Target 2 - By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	Output 3.1.1 Multi-sectoral Platform at national level established within CONAN to promote and monitor the integration of agrobiodiversity into policies and programmes in the agriculture, nutrition, education, health and food security sectors. Output 3.1.2 Three new/adapted policies (Biodiversity Law, Law of the Rights of Mother Earth, Law 144/Agricultural Community Productive Revolution Law) will be adopted and implemented to support conservation and sustainable use of agrobiodiversity, considering its importance for nutrition, food security and health Output 3.1.3. Agrobiodiversity conservation and sustainable use mainstreamed into at least 6 programmes and projects implemented by Ministries member of the Multisectoral Platform at local and national level.	• Trends in integration of biodiversity and ecosystem service values into sectoral and development policies (C)
Target 13 - By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	Output 2.1.2 (see above) Output 2.1.4 (see above)	• Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)
Target 14 - By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	Output 1.1.1 A National Information System on native agrobiodiversity, nutritional value and adaptability to climate change easily accessible and available to policy makers, consumers and local communities. Output 1.1.2 Food sources of agrobiodiversity evaluated through the use of nutrition indicators for biodiversity (a. food composition and, b. food consumption).	• Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15) • Trends in

	Output 1.1.3 Ten local crop/plant ecotypes important for food security and nutrition selected (through a gender-sensitive participatory approach) in each macro eco-region and their characteristics analyzed in relation to nutritional content, resilience to climate change and genetic erosion threats. Output 1.1.4 Database on the nutritional content of agricultural biodiversity, in accordance with international norms and standards (INFOODS-FAO) developed. Output 2.2.1 Agrobiodiversity-friendly product certification and origin and nutrition label mechanism developed for selected crop ecotypes based on SENASAG product standards and agreed criteria for agrobiodiversity-friendly production practices.	nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)

A.3 The GEF Agency's comparative advantage:

FAO has extensive experience in supporting member countries in the analysis, conservation and sustainable use of agro-biodiversity relating to nutrition and food security. The Nutrition Division of the Department of Economic and Social Development (*ESN*) of the FAO implements technical assistance projects in food consumption, food composition, nutritional requirements, community nutrition, nutrition education and food security for households. ESN provides technical assistance for capacity building, regulatory development, training and information on indicators for assessing the composition and consumption of agro-biodiversity food products. Other FAO departments provide technical expertise in crops and forestry applied to inter-sector activities with nutrition components.

FAO has a history of supporting the government of Bolivia in national programmes on household food security incorporating agro-biodiversity, using the nutrition networks supported by the FAO Representation in Bolivia. In the policy and communication areas, FAO has a key role in supporting the integration of nutrition and agro-biodiversity in food security practices in the household and in agricultural development.

ESN has developed tools to assess dietary diversity, integrating information about the specific agro-biodiversity of different food systems. Furthermore, a database has been developed and published on food composition for biodiversity and two nutrition indicators related to biodiversity (one on food consumption and another on the composition of foods), are under development.

Another comparative advantage relates to one of the main mandates of the FAO Production and Protection Division (AGP), which promotes sustainable intensification of agricultural production. This approach requires the integration and harmonization of all policies for adequate crop production and practices directed at increasing crop productivity sustainably, the key to conserving natural resources and the environment for future use. The focus of the activities is to develop and strengthen: effective and strategic decisions that increase crop production with the ecosystem approach; national capacity to monitor and respond effectively to cross-border pests and other major infestations; policies and technologies appropriate to the needs of the country to reduce the negative impact of pesticides; and conservation and sustainable use of plant genetic resources with strong links between phytogenetics-improvement, conservation and development of the seed sector. In addition, FAO has an interdepartmental working group on voluntary standards that includes experts in certification of organic and fair trade foods, eco-labelling, nutrition labelling and geographic indicator labelling.

The conservation of biodiversity has received a good deal of attention in the FAO work programme, through the various divisions and departments. An active interdepartmental mechanism ensures the coordination and harmonization of FAO approaches, and the work in this field. FAO supports the Convention on Biological Diversity (*CBD*) and participates in the Convention meetings. A FAO interdepartmental working group coordinates activities in the working framework of the United Nations Convention on Climate Change, generating research studies and analysis on present and predictable trends, as well as possible strategies that could be adopted to mitigate the impact of climate change processes on crop production systems. FAO guarantees technical support for the proposed project by way of these two interdisciplinary mechanisms.

Promotion of sustainable use of agrobiodiversity and focus on Plant Genetic Resources for Food and Agriculture (PGRFA) is another comparative advantage of FAO, which focuses on the diversity of seeds and planting material of traditional and modern crops, crop wild relatives, and other wild plant species, which are the biological basis of food security. AGP has the role of Secretary of the Intergovernmental Working Group in the FAO Commission on PGRFA. Through the Working Group, the Commission guides FAO activities regarding the implementation of the Second Global Plan of Action on PGRFA and monitoring conservation and sustainable use of PGRFA in member countries, including Bolivia.

The FAO work on seeds and PGRFA, directly and through the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA-which has established its secretariat within FAO), focuses on conservation and the sustainable use of plant genetic resources for food and agriculture, contributing to food security. The objective is to integrate the concepts of conservation and sustainable use into national policies and strategies, to ensure a comprehensive response to the needs of farmers, to support sustainable intensification of agricultural production. Through the Treaty, countries agree to establish an efficient, effective and transparent multilateral system to facilitate access to plant genetic resources for food and agriculture, and share the benefits fairly and equitably.

Finally, FAO has the advantage of having an office in Bolivia, which liaises with government offices, particularly those relating to agriculture, rural development and the environment. This facilitates local contacts and the implementation of the project.

A.4 The baseline project and the problem it seeks to address:

During the full project development the baseline and the problems the project will address, jointly with co-financing initiatives, have been further analyzed. Please see the FAO Project Document section 1.1. The following is a detailed and updated description of the baseline projects and initiatives excluding only the unchanged parts of the PIF, while other parts partially changed or updated, have been included. The text has been organized differently from the PIF, grouping baseline projects by Components. The description of co-financing projects has also been further detailed and remaining barriers to be addressed by the project have been more clearly identified.

<u>Baseline projects</u>

The Bolivian government gives particular attention to initiatives relating to food security and there are efforts related to the conservation of genetic resources. Both types of initiatives are the basis upon which the project has been designed. This project is unique in that both topics will be addressed together for the first time in Bolivia.

Component 1

A major project that forms the baseline for the proposed project is the *UNEP/GEF* project (GEFID: 1259), concluded in 2006, entitled "*In-situ conservation of crop wild relatives, through information management and application in the field (USD 1 100 000)*". The data and methodology developed for the conservation of crop

wild relatives and the capacities build are an important baseline for the proposed project. The UNEP/GEF project provided important data on the characteristics and diagnosis of crop species and their wild relatives, which is important for Bolivia's contribution to the conservation of agro-biodiversity worldwide. The project collected basic information on around 200 species belonging to 16 priority genii, including their geographical distribution and their taxonomic classification. It also identified Biological Diversity Centres, endangered species, and strategies for the conservation of genetic resources. However, the data and information gathered did not include the species and varieties capacity to adapt to climate change and their nutritional value.

The techniques and skills acquired will be very useful for the identification of crop wild relatives to be conserved in this project. One of the main products of the UNEP/GEF project has been the publication of a manual for the in-situ conservation of crop wild relatives.[6] The proposed project will complement the *UNEP/GEF* project by including information on the capacity to adapt to climate change and nutritional value of cultivated and conserved crop species. A subcomponent of Component 1 is entirely dedicated to building an information gateway on agro-biodiversity that unifies data and information from the *UNEP/GEF* project, with databases of the composition of biodiversity food products, as well as data being developed in the *IADB/GEF* project (described in section 4.1) and all data and information produced by this project.

Currently, the General Directorate of Biodiversity and Protected Areas of the Vice-Ministry is working to unify information and databases developed through projects on biodiversity co-financed by the *GEF* and others, to establish a system to ensure coordination through shared and centralized management. The *BioCAN* Programme, currently under implementation, has offered the Vice-Ministry the opportunity to implement this shared and centralized system. This Programme is directed at integrated information management, including strengthening the information systems of member countries, to articulate a Regional Amazon Environmental Information Platform. The *SpBioCAN* Application serves to support information management processes and increase knowledge on species.

The Information Platform of Component 1 of the proposed project, using the *BioCAN* Programme model, will allow for the collection, organization and sharing of all information, data, experiences, methodologies, knowledge and practices of the indigenous peoples, from the *BioCAN* initiative itself, the *IDB/GEF* project on vertical Andean ecosystems and other projects on agro-biodiversity, in a single source.

Component 2

In Bolivia, specific institutional experiences relating to in-situ conservation processes exist in each of the macro-regions. One example is the *PROINPA* Foundation that is implementing projects in the Highland and Valley macro-regions for conservation and the use of agro-biodiversity in roots and tubers and other Andean crops of high nutritional value, to strengthen the resilience of poor communities to food insecurity, poverty and climate change. All of these aim to recover, develop and apply agronomic innovations to improve productivity and promote native resources and market linkages. The principles are based on the *agro-ecosystemic* approach that takes into account all ecosystems with agricultural value, along with other biotic populations interacting with them and the physical and socioeconomic environment. Moreover, *PROINPA* applies the participative marketing chain approach that has been developed in the Andean region by the International Centre of Potatoes – *CIP*. This is focused on the involvement of all public and private actors for agro-biodiversity-friendly products, in the identification and implementation of actions to improve market access.

Other experiences with in-situ conservation processes are those developed by the Friends of Nature

[6] *Crop Wild Relatives: A Manual of in situ Conservation* (Eds. Hunter D., Heywood V.), Bioversity International, Earthscan, UK, 2011

Foundation (FAN) and the Foundation for the Conservation of the Chiquitano Forest (*FCBC*), the former having as the area of intervention the Tropics, Amazon and Chaco macro-regions and the latter, the Tropics. Their principles are based on the ecosystem approach that promotes sustainable human development, where access, management and use of natural resources provide equitable benefits available to all local stakeholders. The aim of FAN is that Bolivia retain its functional ecosystems for the benefit of its people and biodiversity, through projects for promoting strategies for adaptation to climate change, and to ensure food security, biodiversity conservation, hydrological-cycle stability and soil resources.

The Cochabamba Agro-ecology Foundation (*AGRUCO*) in the Valley macro-region, and the Foundation for the Promotion of Sustainability and Knowledge Sharing (*PROSUCO*) in the Highland macro-region have developed an interesting approach that recognizes the compatibility between sustainable use and conservation of biodiversity, through the renewed appreciation of local knowledge, engaging in knowledge, understanding and science exchange among local stakeholders. It is the *theoretical-methodological approach to sustainable, endogenous development*, which applies an intercultural, trans-disciplinary principle of sustainable productive innovations.

Another interesting approach has been developed by the Pairumani Phyto-ecogenic Research Centre (USD 3 000 000 per year), which prioritizes the need to increase the income of farmers who conserve germplasm. The Research Centre has focused its strategy on improving crop yields through participatory pre-breeding, or by incorporating useful genes to native varieties, through molecular assessments within species, to assess tolerance or resistance to major diseases and pests in a specific area.

German Cooperation plays an important role in the conservation and preservation of the natural and cultural heritage of Bolivia in the 22 protected areas declared to be of national interest by the National Service of Protected Areas (*SERNAP*). While the present project does not intervene directly in protected areas, the approach, methodologies and tools used by the German Cooperation will be shared, identifying in each macro-region actions related to the work being developed in the buffer zones to support indigenous people and involve them in land decisions and planning, and in supporting municipal governments, inter-municipal and regional instances, for the use and conservation of natural resources in a sustainable way.

Component 2 of the project will complement and reinforce the results achieved by the FAO implemented *GCP/BOL/037/ITA* project (completed December 2008), entitled "*Strengthening the plant germoplasm banks of the national system of plant genetic resources for food and agriculture*". In particular, it will build on the technical capacity developed by the project in inventory, study and characterization of native germplasm.

Component 3
In recent decades, the Bolivian government has supported programmes (*Multi-sector Zero Malnutrition* (USD 3 000 000), *SUSTENTAR* and *ADEMAF*, which promote local agro-biodiversity products with significant nutritional value. MDRyT is a member of the National Council for Food and Nutrition (*CONAN*), which aims to implement joint policies contributing to food and nutrition security, and food sovereignty. As a result of the first National Meeting of Food Sovereignty (June 2010), the National Committee for Food Sovereignty (*CONSA*) was established. In this context, the MDRyT leads several projects and programmes relating to food security and sovereignty, following the approach of the National Development Plan. These projects give priority to the recovery and use of local products with high nutritional value. One example is the project entitled, "*Strengthening local response capacity for inter-sectoral implementation of the Zero Malnutrition multi-sectoral programme*".

Among baseline initiatives promoting native products recognized for their nutritional properties, the most relevant to the project are:

a) "*Supplementary School Meals Programme with Native Products in the Municipality of La Paz*" (USD 3 640 000 per year of expenditure on organic native foods), initiated by nutritionists and small organic food producers supplying schools, diversifying the school breakfasts or snacks with Andean and Amazon products (e.g. cereals, honey, amaranth, nuts, *carabola* fruit juices). This programme developed production chains with 15 small businesses, 7 of these associations are from the departments of La Paz, Cochabamba, Santa Cruz and Pando. Seven processors and distributors provide 170 000 daily food rations.

b) The "*INASES* (National Health Insurance Institute) *programme for the subsidy of foods with native products*" has restructured a maternal lactation subsidy package incorporating native foods. Crop wild products that have been included are raw, unprocessed almond seeds and honey. By 2013 it is proposed to incorporate palm hearts and peanuts from the Tropics and the Amazon regions. Each food is selected for their nutritional qualities.

c) From 2002 to 2005, through the Department of Nutrition of the Ministry of Justice, the *"National Programme for the Attention to Children under Six – PAN"* purchased processed food products developed from native products important to food security such as quinoa, *tarwi* (lupin) and maize through farmers' associations and other producers. This activity originated in the 1990s to provide food to the school meals programme in the municipality of La Paz. This experience is now applied through the departmental and municipal governments with jurisdiction over the *PAN* centres (USD 70 000 per year expenditure for native food products).

d) The "*Municipal Committee Food and Nutrition of the community of Caripujo"* project (USD 500 000), developed through *CONAN*, has supported the work of the Municipal Committee for Food and Nutrition of the Caripujo community in the Department of Potosi, which has high rates of malnutrition. With farming organizations, the Municipal Incentive project is promoting the cultivation of important native products and products for infants, targeting children under two years of age, contributing to its Zero Malnutrition goal.

Numerous government initiatives on food security, such as the "*Multi-sector Zero Malnutrition Programme*", and *CONAN* initiatives, as well as food programmes developed through many municipalities, will provide a basis for the development of Component 3 of the present project. Timely coordination will be developed through the Multi-sectoral Platform, which will formalize specific linkages aimed at mainstreaming agro-biodiversity in food security policies and the inclusion of native species selected by this project in school meals programmes.

Component 4

The FIDA-funded project on underutilized Andean grains completed in 2010 provided a conceptual framework which has been instrumental in formulating this proposal. The *FIDA* project followed three main lines of action: a) evaluation of the nutrient contents of native varieties of selected crops (raw and processed), b) develop more attractive products, especially for young people, and c) conduct informative campaigns to promote the selected crops and their nutritional properties.

Through a coordinated effort with the Bolivian Institute of Standardization and Quality - *IBNORCA*, technical standards for the promotion of quinoa and cañahua were developed for the first time in Bolivia and the Andean region. This permits their inclusion in the export market. Through mass media such as radio, television and newspapers, awareness of the nutritional value of cañahua, quinoa and amaranth was promoted throughout Bolivia. This project provided key elements for the development of Component 4 of the project, in selecting the most appropriate media and in developing awareness–raising messages and information on the nutritional properties of native products.

In 2009, FAO and the Italian Ministry for the Environment and Land launched a joint project called "*Communication Initiative for Sustainable Development (CSDI)*" aimed at promoting communication strategies and approaches related to climate change and food security. The CSDI outcome is an important part of the baseline of Component 4 of the proposed project in terms of the selection of stakeholders and implementing partners for the information campaign, and in the methodology for awareness-raising and capacity building for strengthening the ability to facilitate dialogue between institutions and smallholders. The Communication and Training Strategy developed during the project preparation phase has been set up through capacities built in the CSDI.

Particularly significant for the implementation of Component 4 of the project are the Catholic Church initiatives developed in departments such as Chuquisaca, Potosi, Tarija and Santa Cruz. Since the early 1960s, the Loyola Cultural Action Foundation (*ACLO*), with Radio ACLO, the *Fe y Alegría* Radiophonic Institute (*IRFA*) and Radio "Santa Cruz" have developed numerous literacy campaigns in rural areas, training peasant and indigenous leaders, who were assisted by the radio to fight illiteracy, drawing on highly participatory tools, methodologies and processes. In terms of the recovery of knowledge for the in-situ conservation of underutilized species and / or ecotypes, these experiences, strategies, methodologies and tools, could be used through agreements and partnerships with these radiophonic services.

Co-financing projects

The activities, programmes and projects that will provide co-financing for this project will be oriented towards combining biodiversity conservation with resilience to climate change and recognition of the nutritional value of agro-biodiversity products. As contributions from the Bolivian government, the FAO and Bolivian non-governmental institutions, the following programmes and projects will provide co-financing to the incremental costs of the current project.

The MMAyA – Vice-Ministry of the Environment, Biodiversity and Climate Change (*VMABCC*), will provide USD 8 000 000 in co-financing through the National Bioculture Programme. This initiative focuses on the renewed appreciation of traditional knowledge of the use of biodiversity and productive systems, and supporting standard regulations and policy for the environment and biodiversity (Highlands and Valley Macro-regions). The Bioculture Programme highlights the participatory approach, where local communities participate in conservation decisions and strategies, with a commitment to respect, conserve and maintain knowledge, innovations and the practices of indigenous and local communities, embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promoting their wider application, with the approval and involvement of the holders of such knowledge, innovations and practices.

The Bioculture Programme has potential for supporting the four components of the proposed project in the Andean region (above all the Highlands and Valley macro-regions), through its objectives to: improve human nutrition, reducing malnutrition by 10% in 20 municipalities (related to Component 1); improve processes of Andean ecosystem conservation, through participatory development of Management Plans, including species with some degree of threat, and renewed appreciation of the knowledge and traditional practices of production and use of agro-biodiversity (related to Component 2); create political, economic and institutional conditions for the sustainable management of Andean ecosystems by developing public policies, regulatory framework and institutionalism aimed at sustainable use and conservation of biodiversity (related to Component 3); build capacities of all implementers of the Bioculture Programme, communities and indigenous peoples, to ensure efficient, effective and sustainable management, a monitoring, evaluation and follow-up system, and a system for communication, dissemination and exchange of experiences (related to Component 4). The work plans for

this project will be designed in close collaboration with the project managers of the Bioculture Project, to strengthen results reciprocally and avoid duplication.

The Regional Autonomous Government of the Tarija Chaco - Caraparí will provide USD 3 517 991 in co-financing via the following initiatives: the *Integrated Support and Nutrition Programme*; *Re-population of timber species, Sylvo-pastoral Management System*, 2nd Section G. Chaco; *Grain Production Support* – Carapari, 2nd Section; *Implementation and Management of Fruit Tree Germoplasm*, 2nd Section of Gran Chaco; *Programme for the Recovery and Dissemination of the Guarani and Carapari Cultures, Support for Agricultural Fairs*, 2nd Section, Gran Chaco Province; *Cultural Revaluation in Communities in the Rural Area and Indigenous Populations, Plant Protection and Support to Farmers*, 2nd Section, Gran Chaco; *Support and Training for Production of Species (vegetables)* in the 2nd Section, Gran Chaco Province; *Construction of the Carapari Botanic Centre* and *Support for the Production and Marketing of Potato Crops*, 2nd Section, Carapari. All activities and products relating to Component 2 of the proposed project in the Chaco macro-region will be supported through a joint effort to be developed between the current project and the Autonomous Regional Government of the Tarija Chaco-Carapari.

The National Council of Quinoa Traders and Producers (*CONACOPROQ*) will provide USD 440 000 in co-financing from the following initiatives: *Programme for In-situ Conservation of the Black Quinoa Species in the Municipality of Salinas de Garci Mendoza, Sigualaca Community*; *Programme to Determine the Nutritional Value of Black Quinoa; Support for the Implementation of the 2nd Festival of Quinoa and Lama Meat*; *Incentives to Promote Black Quinoa Consumption in the Country; Support and Training for the Production of Black Quinoa*; *Support for School Meals with Quinoa and Lama Meat in School Centres*, Tambillo, Chaiua, Challuma, Jayacota, Puqui and Lakasa communities. The CONACOPROQ projects are in synergy with Components 1 and 2 of this project, with various activities related to quinoa. In particular, the synergies will be established in the methodologies and experiences of in-situ conservation of black quinoa, in determining its nutritional value and in organizing quinoa festivals and incentives to promote the consumption of black quinoa in the country. *CONACOPROQ* support will also be provided through training in quinoa production and introduction of quinoa into school meals in some municipalities in the Highlands.

FAO will provide USD 1 379 000 in co-financing for the implementation of the project through the following initiatives: *An exploratory study of a regional research alliance on quinoa and other Andean grains and legumes in Bolivia* (3401 TCPF Baby); National technical unit of the national urban agriculture Programme (TCPF 3401 Baby); *Capacity building for institutions and productive organizations on topics of productive development and employment generation, with sustainable management of natural resources and the environment* (UNJP/BOL/045/UNREDD); Technical *assistance for sustainable crop protection and improvement of pesticide management capacity and strengthening technical and institutional capacity for recording and post-registration monitoring / control of pesticides in the Andean countries* (TCP/RLA/3402, TCP/RLA/3212 Phase II-*D); Technical assistance for sustainable crop production and improving pesticide management capacity* TCP/BOL/3402, TCP/BOL/3203 Phase II), *Programme to support rural family agriculture in Peru, Bolivia and Ecuador, to improve the availability, access and use of quality seed in Andean Highlands (*GCP/RLA/183/SPA); *Integration of the right to food and good governance in policy, roles, laws and institutions (*GCP/GLO/324/NUR*); Strengthening human security in indigenous communities (*OSRO/BOL/105/UNO*).*

Ongoing FAO initiatives are developing close collaboration with farmers and indigenous communities. They are strengthening institutional and community capacities in the management of pesticides, and supporting organic production of six key products - quinoa, amaranth, *tarwi* (*lupins*), *maca*, sweet onions, and beans- in poor areas with high potential for growing these products as well as their promotion in the markets, through partnership mechanisms, standards, policies and financial and non-financial services. The projects supported

by FAO are implemented primarily in the Andean region. Specific labelling has not been developed, although a goal of these projects is to facilitate access for producers to agricultural biodiversity and nutrition labelling. Some food products are being marketed as organic, but currently have no specific label as such. Central government authorities, the public and private sectors, local leaders, municipalities and producers are working together on FAO projects for the development of a *green* certification system for the domestic market which will benefit component 2 of the present project. The current project will also benefit from organic production systems, and from partnership mechanisms, standards and policies developed, and will provide information to the FAO projects on the development of a specific label for agro-biodiversity-friendly products with high nutritional value, in association with already-existing private initiatives in the area of processing foods with high nutritional content, which are marketed as agro-biodiversity produce.

The initiatives considered for co-financing, while playing an important role, have a different focus and the GEF project will stimulate synergies and better linkages among the projects. These initiatives can support the four Components, but with a different strategy that does not combine the conservation of agro-biodiversity with nutrition, climate change and increased income. They are projects developed only in the Andean region and in the Chaco (through the Autonomous Regional Government of the Tarija-Caraparí Chaco), and they lack a multi-sectoral approach and association with initiatives in other regions of Bolivia.

Remaining barriers to be addressed by the project

The five macro-regions face different problems and threats within their farming communities and indigenous populations. During project preparation local workshops were conducted to gather information on needs and barriers for agrobiodiversity conservation and sustainable use in each of the macro-regions (for details see Annex 3). These workshops used a participatory approach which included the involvement of researchers and field technicians linked to biodiversity conservation processes. Barriers common to the five macro-regions and other, more general obstacles of an institutional nature, to be addressed by the project, have been summarized below.

Insufficient systematization and accessibility of information on foods from agro-biodiversity. Relevant information is fragmented and scattered among various publications and database reports. There is no management of information on biodiversity species, their conservation status and main qualities for human food that guarantees a simple mechanism for public access. There is a lack of a system to centralize and systematize information on potential of underutilized species and / or ecotypes and their climate change adaptation characteristics and nutritional value that could facilitate their use, and which would be a vital tool for decision makers. There is weak institutional capacity to survey, collect and systematize nutritional data on agro-biodiversity food products, and to analyze the chemical composition of foods and manage food composition data according to INFOODS/FAO international standards. The production and marketing of native foods have been promoted by governmental and non-governmental institutions, small businesses and community farming associations that do not take into account knowledge of the nutritional properties of agro-biodiversity food products. Foods are marketed according to the ancestral knowledge of some of their beneficial properties. There is a low consumption of local biodiversity food products in rural communities due to a lack of knowledge of the importance of dietary variety and the potential benefits of native species for health.

Process of knowledge erosion on native species and traditional practices of production and agrobiodiversity conservation with a concentration of local knowledge among few people and a lack of inter-generational transfer of knowledge. This is accompanied by loss of ancestral perceptions and dietary practices and shifts to eating habits which may be less healthy. Production and agrobiodiversity conservation systems are weakened because of: limited information on methodologies and technologies that enhance

conservation and production processes specific to native crops, in accordance with traditional practices; ignorance of ethno-botanical and agro-botanical descriptors of the genetic diversity of crops, crop wild relatives and wild species, classified on the basis of peasant knowledge and experience; effects of climate change which alter cycles and production processes, or generate adverse conditions and concomitant lack of knowledge on native species with greater capacity to adapt to climate change; and the lack of management plans for the sustainable use of natural resources and biodiversity conservation.

Lack of incentives to promote strengthening of production and marketing processes for native crop products and insufficient cooperative work to strengthen community relations and productive collective strategies to overcome locally-identified problems and access to markets. Even though many successful experiences exist supported by NGOs and foundations, a more consolidated model to be replicated supported by the government and sustained by a labelling scheme are still lacking. The marketing of native species confronts several barriers including: absence of consumer awareness of the nutritional value of agricultural biodiversity products; lack of consumer differentiation between native agro-biodiversity species and agricultural species that have been introduced; low purchasing power which leads to choices of low-cost food regardless of nutritional quality; lack of awareness of the characteristics of the demand, with respect to the appreciation of products with high nutritional value. There has only been limited market research to guide product development, strategies for opening markets for new products or pricing strategies. In terms of price, it is not known how much the consumer is willing to pay for a product of high-nutritional value deriving from agro-biodiversity conservation.

Absence of a consolidated system able to locate / monitor and quantify the information necessary for the conservation of agrobiodiversity, and with the capacity to support the sustainable use of biodiversity resources: a system with the capacity to identify areas rich in agro-biodiversity in terms of species important for their contribution to human nutrition, and adaptation to the impacts of climate change.

Weak application of state policies for the conservation and sustainable use of agrobiodiversity and policy instruments are precarious. National State and Municipal Policies which encourage and/or promote the conservation and consumption of local agro-biodiversity species are rare. Furthermore, there is an absence of policies that combine the value of agrobiodiversity, the need for its conservation and sustainable use, with the improvement of food security, taking into consideration and promoting native species with high nutritional value and capable of adapting to climate change.

Public institutions lack information regarding native species with significant nutritional value, with the consequent weakness of sector policies and programmes combining the sustainable use of biodiversity with food security. There is little inter-institutional collaboration in the implementation of national, departmental and municipal programmes on the conservation of biodiversity, and food and nutrition security. This is due to the lack of the appointment of an inter-institutional and multi-sectoral organism responsible for tracking and monitoring actions directed at improving food security, using nutritious agro-biodiversity native species.

Food consumption patterns in urban and rural communities do not appear to include agro biodiversity foods, as a result of insufficient public awareness of the existence of these species/ecotypes and their benefits for nutrition and health. This is due to a lack of strategies and communication programmes aimed at raising the appreciation of the native species in agro-biodiversity to improve food security. There are prejudices towards certain food species and/or ecotypes. This is further complicated by situations that idealize the Western diet, even in rural areas, where the use of a wide range of "foreign" foods has affected customs and traditions in food production. Consumption of traditional foods may also be discouraged because the products are perceived to be of low quality.

Needs and demands for training and knowledge on methodologies for in-situ conservation of cultivated and wild agro-biodiversity, through an understanding of the agro-physiological conduct of native crops, and ethno-botanical and agro-botanical classification of the native species. Furthermore, a high demand has been identified for training in marketing strategies and marketing agro-biodiversity produce. With respect to nutrition, there is a need for training in selecting and promoting a diversified diet containing native products, and to acquire knowledge on the specific health effects of the consumption of agro-biodiversity foods. In addition, a more specific training are needed in good laboratory practice, in the use of databases on food composition, and in nutrition indicators for agrobiodiversity.

A.5 Incremental / Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

Linking agro-biodiversity to improved livelihoods can be a potent driving force to enhance the conservation and sustainable use of unique and globally important agro-biodiversity. The model proposed in this project provides a strong motivation to smallholders for in-situ conservation, through the consideration of issues such as improving production and diets, as well as through the marketing of products and increased income.

Bolivia has commitments for the mobilization of local agricultural biodiversity to address nutritional problems. However, experiences are limited in duration and are confined to a small number of agricultural products. There has been a lack of capacity to carry out the complex inter-sectoral work needed to capture information about the nutritional value of food from agrobiodiversity to support the sustainable use and conservation of these resources and to fully integrate this information in food and nutrition security strategies and national policies. With the incremental financing from GEF, the proposed project will reinforce this approach, including a larger number of local ecotypes and products related to the different macro-regions, with greater resilience to climate variability. It will take the approach to a national scale for inclusion in health and nutrition policies and programmes and in the agricultural sector.

Component 1 of the project will update, collect, organize and improve accessibility to the currently very fragmented and difficult accessible information on the agro-biodiversity of Bolivia currently not systematically shared between institutions. A system of centralized information, shared among different institutions, will be established, and agro-biodiversity data will be combined with nutritional data and information related to ecosystems and climate change. The varieties of crops already inventoried and their wild relatives will be evaluated, and the analysis of the nutritional content of the selected groups and their resilience to climate change will be carried out for each of the macro-regions, in order to select ecotypes for in-situ conservation.

Through Component 2, community management plans will be developed in the five macro-regions for in-situ conservation, as well as labelling systems and market links for agro-biodiversity and nutritionally rich products, taking into account, and following, methodologies and practices developed by previous experiences, based on approaches in management plans developed by the *PROINPA* Foundation and other national institutions. The added value of the proposed project will be to update these management plans and support the expansion of the areas of development, and the implementation of the plans, to all macro-regions, with special emphasis on the plant/crop ecotypes with high nutritional value and resilience to climate change. This will be incremental to the current sustainable use and conservation initiatives in some macro-regions such as the Highlands and Valleys, the areas with the greatest experience. In these areas actions are developed at local level, without the possibility of methodological and informative exchange and comparison with similar experiences implemented in different environments.

Traditional indigenous knowledge of the management of agro-biodiversity resources and their conservation will be recognized, retrieved and systematized. This will be related to scientific knowledge and included in the Information System in Component 1. Through Component 2, Bolivian agro-biodiversity will be explicitly recognized, highlighting the benefits of derived foods through product labelling. Apart from private initiatives, nutrition labelling is not developed in Bolivia, and the incremental value of the project will be the development and implementation of a public labelling scheme for nutritious agro-biodiversity products, within the regulatory framework of the Bolivian institution, *SENESAG*.

In order to identify and monitor conservation priorities and actions, genetic erosion trends and threats will be analyzed in relation to each of plant/crop ecotypes, and the geographic potential for crop expansion will be identified with Geographic Information System (GIS) support.

Component 3 will improve the agrobiodiversity chapter of the National Biodiversity Strategy and Action Plan (*NBSAP*), the National Development Plans and other relevant national strategies, and will develop multi-sectoral policies and regulatory frameworks, adopting the conservation and sustainable use of agro-biodiversity for food security and nutrition. The incremental value of this Component is to strengthen conservation policies and programmes, accentuating the role of agro-biodiversity with greater evidence, and encouraging its application, including measures to give incentives to producers and those involved in conservation. Furthermore, this Component intends to enhance these policies, with the aim of incorporating native agro-biodiversity in food security and nutrition programmes, and integrating and enhance the coordination among the different sectors through an inter-institutional Multi-sectoral Platform.

This will be incremental to the current situation where small-scale initiatives are implemented, without a strategy developed at different institutional levels (local, departmental and national) and without combining agro-biodiversity and nutrition. These existing projects would not include the valorisation/selection/ marketing of agro-biodiversity products with high nutritional value and good potential for adaptability to climate change. There are projects that value native species (particularly at municipal level), but they are fragmented. Policies and programmes implemented currently do not have a clear and strong link between biodiversity conservation and diversification of diet and they lack a multi-sectoral, integrated approach. Component 3 will also enable Bolivia to contribute to global knowledge benefits, through the systematic incorporation of biodiversity in nutrition policies, following international nutrition guidelines.

Through Component 4, all stakeholders (policy makers, technical government staff, social organizations, indigenous and local communities, producers, processors and consumers) will be informed, trained and sensitized. This component will support the development of the other three components through a communication, awareness-raising and training strategy to reach beneficiaries through different mass media, and specific and differentiated messages. The overriding key message will be the enhancement of the production and preservation of native agro-biodiversity products, emphasizing their potential to improve and diversify diets, address the consequences of climate change and generate additional income.

The incremental cost provided by GEF funds will enable Bolivia to continue to address the threat of genetic erosion and loss of valuable species. These valuable resources must be preserved and integrated into the effort to reduce hunger, poverty and malnutrition. The additional GEF resources will also enable the country to seize the opportunity to make progress in significantly expanding the conservation and use of local agro-biodiversity of plant / crop ecotypes, with high nutritional value and the capacity to address climate variability. There will be an increase focus at national level through inclusion in sectoral policies and strategies of the regulatory framework, and by providing local economic incentives, by strengthening market links for the products of agro-biodiversity.

Global Environment Benefits

The project aims to achieve the following global environmental benefits:

1. Increased in situ conservation of selected local ecotypes important for nutrition and food security in 50 communities covering 6 000 ha in 5 macro-ecoregions (indirectly 125 communities covering 15 000 ha will be impacted after the end of the project through scaling up (Outcome 2.1)
2. At least 1 000 ha. under agrobiodiversity production standards and nutrition labels (monitored through the application of the GEF BD-2 tracking tool). Partner Ministries committed to facilitate the expansion to 2 500 additional ha. at the end of the project (Outcome 2.2.b).
3. Measures to conserve and sustainable use Agrobiodiversity incorporated in agriculture, nutrition, health, education and food security policies, programmes, and regulatory frameworks (Outcome 3.1).
4. Further, through the above mentioned outcomes the project will contribute to the achievement of the following global environmental benefits: (i) documentation and systematic organization of knowledge and best practices associated with conservation of genetic diversity in-situ; (ii) conservation of globally important habitats due to their nutritionally-rich agro-biodiversity; (iii) local communities put into practice improved livelihood and production systems based on agrobiodiversity, reducing pressures on natural systems and resources associated with biodiversity; (iv) potential is identified for the application of the piloted intervention model in similar agro-environments, based on the ecosystem approach to conserve and use biodiversity sustainably, select species nutritionally-rich and resilient to climate change, and promoted through product labels and collective brands on biodiversity conservation.

An additional global environmental benefit of the project will be that it will strengthen Bolivia's capacities to directly assist the implementation of the programme of work adopted at CBD COP8 "Cross-cutting initiative on biodiversity for food and nutrition". The proposed project, through its assessment of nutritional and livelihood benefits from local food products derived from the rich agro-biodiversity in Bolivia, will contribute to international efforts to address global food concerns such as the effect of globalization of diets on health and the increasing awareness of the need to adopt approaches based on sustainable use of local agro-biodiversity. The international efforts of the government of Bolivia in supporting the implementation of these initiatives under the CBD will be facilitated by two project outcomes: systematic information on food sources from agro-biodiversity and the nutritional and health value of plant/crop ecotypes available for policymakers, consumers and local communities (for each macro eco-region 5 plant/crop ecotypes are identified, analysed and incorporated into the database); and increased awareness of conservation and sustainable use and the nutritional benefits of agro-biodiversity (measured through questionnaire survey documenting level of awareness among institutional staff, consumers, processors and producers being the target group of awareness campaigns and training causes in the nine departments of Bolivia). Materials and methodologies used in awareness raising campaigns and capacity building are easily reproducible in similar contexts in other countries in the region. The transfer of information and data regarding Bolivia's agrobiodiversity towards other countries, mainly in Latin America, with similar macro eco-regions (particularly regarding the analysis of resistance to climatic variability, nutritional content, and genetic erosion and trends of plant/crop ecotypes) will be an important aspect of the global benefits

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Risks and mitigation measures

The risks associated with this project include: limited collaboration between ministries dealing with biodiversity conservation, food security and nutrition;, difficulty of introducing agrobiodiversity products selected by the project into the market; limited institutional and technical capacity to manage agrobiodiversity

resources, and to meet standards and regulations for conservation and sustainable use. The project design includes specific measures to mitigate these risks to achieve environmental and development objectives. The main risks identified during project preparation are listed in the following table together with mitigation measures:

Project risks, their rating and mitigation measures

Risks	Rating	Mitigation measures
Climate change may threaten nutritionally rich local crops due to lack of adaptation to changing environmental conditions.	L	The project gives priority to the selection of species capable of addressing potential climate change in the different macro-regions, as well as nutritional value.
Project technicians may be unable to obtain the trust and engagement of the communities involved, resulting in poor uptake of the information and training provided by the project.	L	The project will work with local organizations that understand the socioeconomic and cultural aspects of local communities in each macro-region, encouraging the participation of women, organizations representing indigenous communities and civil society
Agrobiodiversity products have difficulties entering the market and competing with other food products, resulting in little increased income for farmers.	M	Market studies will be completed to guide the selection of products and information and awareness–raising campaign. Through the "Participatory Marketing Approach", agrobiodiversity- products *will be sold to* school meal programmes, providing a more secure source of income for farmers.
Lack of political will for effective integration of conservation and sustainable use of biodiversity for human nutrition in regulatory frameworks in force in the country.	L	There will be permanent coordination between the Executive and Legislative powers to promulgate these regulations, and constant inter-sectoral work through the Multi-.sectoral Platform, accompanied by training and awareness-raising with decision makers.
Change of senior staff in the project coordinating partner, the Ministry of the Environment and Water, could delay the implementation of activities, disorient the other project partners and lead to a modification of the established approach for the management of natural resources.	S	The project is linked to a national plan that coordinates different agrobiodiversity programmes and there is strong involvement of the departmental governments of the five macro-regions and local communities involved. These factors, which are outside the ministry, may ensure that whatever staff changes occur in the ministry, the project plans must be followed. In addition, FAO Bolivia will participate in the selection of senior project staff.
Limited engagement of the Ministry of Agriculture, including INIAF (seed bank) would result in lost opportunities for synergies between the two projects. Lack of coordination between in situ and ex situ conservation.	M	The critical importance of collaboration among the relevant technical agencies will be strongly emphasized in planning meetings and by the FAO Bolivia and LTU.

H= High (greater than 75% probability that the result will not be achieved)
S =Substantial (50-75% probability that the result will not be achieved)

M =Moderate (25-50% probability that the result will not be achieved)
L=Low (less than 25% probability that the result will not be achieved)

A.7 Coordination with other relevant GEF financed initiatives

FAO and EMAGUA/DGBAP will work in close collaboration with executing agencies of other projects to identify opportunities and facilitate mechanisms to achieve synergies with relevant GEF-supported projects and projects supported by other donors, organizations or the government of Bolivia. These efforts will be facilitated through: (i) informal communications between the GEF Agencies; (ii) sharing of data and dissemination materials between projects; and (iii) strengthening of the CONAN Biodiversity Technical Committee and other existing fora composed of representatives of government agencies, private sector and civil society to address issues of common concern that effect the conservation and sustainable use of agro-biodiversity. To ensure that existing opportunities from coordination and collaboration between different initiatives are realized explicit coordination requirements have been included in the Project Coordination Unit's scope of work (see below). Inter-agency and project coordination will be facilitated by FAO's participation in agency coordination platforms, project staff participation in relevant public fora, cross-site visits, exchange of information, postings on the project website and mailings of relevant publications and newsletter. In particular the project should seek coordination and exchange with the following institutions and initiatives:

1. The IADB/GEF project, under implementation, on the Conservation and Sustainable use of Biodiversity and Land in the Vertical Andean Ecosystems (GEFID: 3831, USD 6 000 000 in GEF resources) is an important reference point for comparing data and methodologies in the Highland macro-region. The MMAyA is the executing partner of both the IADB/GEF project and the proposed project. A committee will be established through the VMA to coordinate the work plans of the projects to avoid duplication and to ensure that skills in data management and information systems are part of a single coordinated and shared intervention strategy. The IADB/GEF project will provide information on the state of the ecosystems and threats to agricultural biodiversity in a specific area of the Andean region (North Potosí and Oruro). However, in the in-situ component (Component 3), this project focuses only on soil degradation, loss of biodiversity and recovery of traditional knowledge, to improve the sustainable use of ecosystems. The two projects are complementary for the in situ conservation of agro-biodiversity in this macro-region and will be sharing methodologies, knowledge and practices.

   The proposed project will complement the IADB/GEF project with information on climate change resilience and the nutritional value of plant/crop ecotypes, and will provide information on the labelling scheme that could strengthen market linkages for the agro-biodiversity products of the IADB/GEF project. The IADB/GEF project will demonstrate best practices regarding the in-situ conservation of this macro-region, to be used in the conservation strategy for selected ecotypes with resilience to climate change and high nutritional value. Besides the potential to collaborate in methodologies for in-situ conservation in the Andean region, the most significant cooperation between the two projects will be developed around data and information-sharing, which form part of Component 1 of both projects, building a single information system.

2. Internationally, this project will relate to the UNEP-FAO/GEF (GEFID: 3808) Global Project titled, "Mainstreaming the conservation and sustainable use of biodiversity for improved human nutrition and well-being" with the participation of Brazil, Sri Lanka, Kenya and Turkey, which has a very similar approach. This project started implementation in 2012 and FAO will facilitate exchange between the

two projects including exchange visits in order to share the experiences, approaches and methodologies developed in the two projects.

3. FAO is also the GEF agency for the Ecuador project "Mainstreaming of the use and conservation of agro-biodiversity in public policies through integrated strategies and in situ implementation in three provinces in the Andean highlands" (GEF ID 4777). This project is in the final stage of preparation and will be operational almost at the same time as the present project. The Ecuador project is different in the approach because it focuses at combining in situ and ex situ conservation strategies and is led by INIAP-Ecuador which is the sister Institute to INIAF in Bolivia. However, both the Ecuador project and the present project will try to develop mechanisms for labeling or local guaranties for agrobiodiversity products and create added value and market links. FAO will be facilitating the exchange of approaches and lessons learned between the two projects, and if feasible exchange visits.

4. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1. Describe how the stakeholders will be engaged in project implementation:

The project will be a national project with the participation of municipal governments, local NGOs and foundations, and local communities in the 19 municipalities where project intervention areas have been selected covering all 5 macroregions of the country (please see table 1.4 in the FAO Project Document). At the national level the main institutions involved in the project will be the Ministry of Environment and Water (MMAyA), through the General Directorate of Biodiversity and Protected Areas (DGBAP) of the Vice-ministry of Environment, Biodiversity, Climate Change and Management and Forestry (VMA) and the Executing Entity for Environment and Water (EMAGUA); the Ministry of Rural Development and Land (MDRyT) and its National Institute for Agriculture and Forestry Innovation (INIAF) and the National Service for Agricultural Health and Food Safety (SENASAG) in particular in relation to component 2; and the National Institute for Health Laboratories (INLASA) in particular in relation to component 1. EMAGUA will be lead government counterpart and Executing Agency in close collaboration with DGBAP with overall responsibility for the project and insuring coordination and collaboration between all project partners in the implementation of the 4 technical components. A Project Coordination Unit (PCU) will be established in DGBAP to undertake day-to-day project coordination and execution in collaboration with all partners and insuring the involvement of key stakeholders.

The main instrument for engaging the principal stakeholders will be the Multisectorial Platform (created under the Technical Biodiversity Committee) described in the project document section 2.4, output 3.1.1, which will include the institutions and national civil society organizations relevant for the project. The main tasks of the Platform will be: a) support the identification and involvement of other executive stakeholders for implementing specific activities; b) provide technical guidance for project implementation; c) lead the process for mainstreaming the agrobiodiversity conservation in policies and programmes. Further, a Technical and Scientific Support Committee (TSSC) will accompany the project execution, which will be composed of representatives of the Technical Committee on Biodiversity of the Multi-sectoral Platform, which brings together members of the following ministries: Ministry of the Environment and Water, Ministry of Rural Development and Territory, Ministry of Health and Sports, Ministry of Education, Ministry of Productive and Economic Rural Development, Ministry of Finance and the Ministry of the Presidency. Furthermore, a representative of FAO, INIAF, SENASAG and key stakeholders (NGOs / foundations and universities) will be part of the TSSC when needed and will give support on the following topics: nutritional and food composition aspects; INFOODS international standards and regulations, methodologies and knowledge of in-situ agro-biodiversity conservation and how to link it to seed systems and ex situ conservation and

development of genetic resources, Agrobiodiversity product marketing, the impact of climate change on agro-biodiversity and the resilience of native species, and the adaptation of policies and programmes to mainstream the use of agro-biodiversity.

At macroregion level 5 Project Planning Subcommittes (PPS) will be established, which will be the local instance at macro-region level for coordination, consultation of opinions and follow-up on the operationalization of the project. Each PPS will consist of the following members:

- A representative of the government of the macro-region
- Two representatives of beneficiary Rural Producer Organizations
- A representative of the beneficiary municipalities
- A representative of the MMAyA and the regional office of EMAGUA
- A representative of MDRyT and regional entities of INIAF y SENASAG
- The Project Technical Coordinator (PTC).

The PPSs will be the forum for analysis, discussion and planning activities for the implementation of the project in each of the macro-regions, and at the same time it will be the space for generating commitments and agreements with local stakeholders, in order to implement multi-sectoral actions. Each PPS will be related directly to the PCU, where the Technical Coordinator of the project will have a coordinating role between the different instances.

For further information on stakeholders and their interest and foreseen role in the project please see table 1.5 section 1.1.3 in the FAO Project Document.

B. 2. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):

The project emphasizes a high regard for the local indigenous and rural communities, their social organizations, practices and knowledge relating to the use of natural resources and biodiversity. The participation of communities in the selection of species, and in the development and implementation of the Management Plans for the different species selected will be coordinated by community leaders who are supported by local institutions, ensuring direct appropriation and self-sufficiency of the communities.

The project is based on a high participation of women in the management of species, especially in terms of selection, harvesting and processing. Their capacities will be complemented and strengthened by training courses and workshops. Gender relations play a key role in the access to, and use of biological resources. The attention to gender will take into account that women often have different knowledge and preferences in terms of crops than men, and women play a key role in seed selection, seed storage and the use of wild plants for food. Since the project refers to the family's basic needs, such as better health, nutrition and food security, women will be encouraged to participate in project activities.

Social sustainability is also guaranteed by the direct benefits that project implementation will produce for participating families. The direct socio-economic benefits for local communities will be achieved by greater household income, through increased production and marketing of agro-biodiversity products (monitored through outcome 2.2a). Institutional support, public awareness campaigns, labelling incentives and the adoption of policies and programmes that promote these products, will help to achieve these benefits. Families will also benefit from the improved, more diverse diet, based on nutritious foods, with the potential for positive effects on health and nutritional status. The selection of varieties resilient to climate change and

extreme weather events will help increasing local community adaptation to climate change. Benefits and social sustainability are also highlighted through the inclusion of the species targeted by the project in food security policies and, supported by municipal governments, through the inclusion of these foods in school meals.

B.3 Explain how cost-effectiveness is reflected in the project design:

Alternative strategy considered

The project contemplated three instead of five macro-regions as an alternative to the proposed project. The justification for a reduction in macro-regions has been posed as a possibility to concentrate the investments, and develop the opportunity to enhance the activities of Component 2, in terms of in-situ conservation and marketing of selected biodiversity products. This alternative would have permitted reallocation of an extra USD 300 000 to only three regions in Component 2, with the possibility of increasing the level of impact on the communities located in these three macro-regions.

The alternative option was rejected because of the following disadvantages:

Great reduction of advantages of scale;

- Loss of the possibility to develop a pilot model at country level;
- Great reduction of the potential to develop a method and strategy based on the ecosystem approach, considering that each macro-region includes different eco-regions and maintains different agroecological characteristics;
- Loss of comparative potential;
- Consistent decrease of the level of global benefits, caused by a reduction in terms of the diversity and number of agro-biodiversity products to be conserved in-situ;
- Reduction of projects and programmes with the potential to be strengthened and providing co-financing.

The strategy selected, to include five Bolivian macro-regions under a national project, will result in significant tangible benefits for the investment and generation of global benefits. Each macro-region supports the key benefit of cross-learning that will arise from a national project. The macro-regions benefit by sharing methods, approaches and lessons that the common Multi-sectoral Platform enables. This also reinforces the outcomes and outputs of the project and will result in economies of scale. The national Multi-sectoral Platform, including the main relevant institutions and organizations, offers the project enormous potential in terms of outreach and scaling-up which would not be possible without including all five macro-regions. The global environmental benefits listed for the project cannot be achieved individually by a single macro-region.

The ability of a national project to mobilize over USD 13 000 000 in co-financing is a significant investment and a clear measure of the cost-effectiveness of a national approach. With fewer macro-regions the project could not mobilize this level of resource. The co-financing mobilized is adequate given the scope of the project. The three macro-regions (Chaco, Highlands and Valleys) which will receive a higher amount of co-financing will achieve more consistent results on a much more extensive scale. Amazonia and Tropics macro-regions will benefit from the other three macro-regions co-financing, because the lessons and scale that they can attain in this project could provide them with valuable lessons that would not be affordable given their more limited co-financing.

A project approach based on including all the five macro-regions, will make it possible to have more effective exchange of project experiences, methods and tools developed by stakeholders specialized in a single macro-region (as mentioned in the project document, specifically regarding the NGOs/Foundations projects on in-

situ conservation) and stimulate the identification and spreading of lessons learned and best practices that can be built upon as a national project.

By employing standardized methodologies and approaches to assess nutritional values and organize information on agro-biodiversity for its conservation and sustainable use, and collecting data using the same definitions, questionnaires and methods, will result in a more rigorous and comparable knowledge base available to policy makers and technicians devoted to agro-biodiversity resources management and in-situ conservation.

The major differences between macro-regions on the level of information available, the marketing potential of products, experiences and capacities developed in terms of in-situ conservation, are all reinforcing elements, taking into consideration a greater number of macro-regions. Where one macro-region has significant gaps and weaknesses, support at the level of methods and skills developed in the others offers good opportunities to fill gaps and strengthen weaknesses.

Through a national approach the project will be in a greater position to contribute significantly to the tracking of relevant global indicators in the area of agrobiodiversity, health, agriculture and food security. FAO, as the Agency responsible for implementation, is adequately embedded in the relevant global processes and mechanisms to ensure that project results and outcomes feed into the achievement of the CBD Strategic Plan for Biodiversity 2011-2020, the CBD's Cross-cutting initiative on biodiversity for food and nutrition, and monitoring of relevant global indicators, such as the Aichi Biodiversity Targets, the revised Global Strategy for Plant Conservation (GSPC) indicators, the indicators on agricultural biodiversity embedded in the Global Plan of Action (GPA) of the ITPGRFA, as well as the relevant core indicators of the Millennium Development Goals and the Committee on World Food Security, of which FAO is member. The Global Information Systems on PGRFA of the international Treaty would benefit from the establishment of the national project portal and other knowledge products and tools to be developed by the Project.

C. DESCRIBE THE BUDGETED M&E PLAN

The Monitoring and Evaluation (M&E) of progress towards achieving the project objectives and results will be carried out on the basis of output and outcome target indicators established in the Results Matrix (Appendix 1 of the FAO project document). The project's Monitoring and Evaluation Plan has been budgeted at USD 215 040 in GEF resources which will be complemented by co-financing and agency fee resources (see table below). Monitoring and evaluation activities will follow FAO and GEF monitoring and evaluation policies and guidelines. Supported by component 5 the project monitoring and evaluation system will also facilitate learning and mainstreaming of project outcomes and lessons learned in relation to community agrobiodiversity conservation plans, added value and market links for agrobiodiversity products based on nutrition labels, and mainstreaming of agrobiodiversity conservation in sector policies and programmes.

Oversight and monitoring responsibilities

The M&E tasks and responsibilities, clearly defined in the Projects Monitoring Plan (see below), will be achieved through: (i) day-to-day monitoring and supervision missions of project progress (PCU, EMAGUA and DGBAP staff); (ii) technical monitoring of nutrition indicators for agrobiodiversity and the coverage and impact of in situ conservation practices (PCU and PPS in coordination with other relevant participating technical partners); (iii) specific monitoring plans for the implementation of agrobiodiversity management plans (PCU and PPS with support from local communities and other stakeholders); (iv) midterm and final evaluations (independent consultants and FAO Evaluation Office); and (v) continual oversight, monitoring and supervision missions (FAO).

At the initiation of implementation of the Project, the PCU will set up a project progress monitoring system strictly coordinated with subsystems for the intervention areas in each macro ecoregion. Participatory mechanisms and methodologies for systematic data collection and recording will be developed in support of monitoring and evaluation of outcome and output indicators. During the inception workshop (see section 4.5.3 below), M&E related tasks to be addressed will include: (i) presentation and clarification (if needed) of the project's Results framework with all project stakeholders; (ii) review of indicators and their baseline; (iii) drafting the required clauses to include in consultants' contracts to ensure they complete their monitoring reporting functions (if relevant); and (iv) clarification of the respective M&E tasks among the Project's different stakeholders. One of the main outputs of the workshop will be a detailed monitoring plan agreed to by all stakeholders based on the monitoring and evaluation plan summery presented in section 4.5.4 below.

The day-to-day monitoring of the Project implementation will be the responsibility of the PCU driven by the preparation and implementation of an AWP/B followed up through six-monthly PPRs. The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project partners. As tools for results-based-management (RBM), the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output targets.PPS specific inputs to the AWP/B and the PPRs will be prepared based on participatory planning and progress review with local stakeholders and coordinated through the PCU and the PPS and facilitated through project planning and progress review workshops. These inputs would be consolidated by the respective macro ecoregion coordinators before forwarding them to the PCU who will consolidate into a draft AWP/B and PPRs. An annual project progress review and planning meeting should be held with the participation of PCU, EMAGUA, DGBAP and macro ecoregion coordinators to finalize the AWP/B and PPRs. Subsequently, the AWP/B and PPRs are submitted to the PSC for approval (AWP/B) and Review (PPRs) and to FAO for approval. The AWP/B will be developed in a manner consistent with the project's Results Framework to ensure adequate fulfilment and monitoring of project outputs and outcomes.

Following the approval of the Project the project's first year AWP/B will be adjusted (either reduced or expanded in time) to synchronize it with an annual reporting calendar. In subsequent years, the work plan and budget will follow an annual preparation and reporting cycle as specified in section 4.5.3 below.

Indigenous and local communities will participate in the monitoring and evaluation process making visual to them the impacts of in situ agrobuiodiversity use and conservation practices. Communities will participate in the identification of indicators to monitor progress in implementing the Management Plans for the conservation of agro-biodiversity, the collection of baseline data and periodic monitoring of impact indicators tailored to specific conservation practices and genetic erosion threats, identified in each macro region during the planning process.

Beyond the project monitoring system, the project will also support the establishment of more long-term monitoring systems that will support the Government of Bolivia in continuously improving the conservation and sustainable use of agrobiodiversity resources for improved nutrition and resilience to climate change This include indicators to be included in database on the nutritional content of agricultural biodiversity, in accordance with international norms and standards (INFOODS-FAO) and 2 Nutrition Indicators for agrobiodiversity and diet diversity.

Indicators and information sources

To monitor project outputs and outcomes including contributions to global environmental benefits specific indicators have been established in the Results Framework (see Appendix 1). The framework's indicators and means of verification will be applied to monitor both project performance and impact. Following FAO's monitoring procedures and progress reporting formats data collected will be of sufficient detail to be able to track specific outputs and outcomes and flag project risks early on. Output target indicators will be monitored on a six-monthly basis and outcome target indicators will be monitored on an annual basis, if possible, or as part of the mid-term and final evaluations.

The indicators for monitoring the results of the first Component of the project were selected to monitor the information collected, systematized and made available to the public on agro-biodiversity food products and their nutritional characteristics and knowledge and traditional in-situ conservation practices. The level of inter-institutional cooperation will also be evaluated regarding data and information sharing on agro-biodiversity, through the construction of an Institutional Information system (measured by user traffic meter).

The indicators for monitoring the results of the second Component include indicators for in-situ conservation practices and the use of agro-biodiversity (number of new practices), the hectares of land used for in situ conservation and for the production of selected ecotypes (measured through the *GEF BD-2* monitoring tool), the implementation of Management Plans (hectares covered supported by the project and potential ha for replication of the implementation of the Plans developed for each species), increased income of participating communities and farming families, through the sale of agrobiodiversity products and verification of the labeling system used for nutrition and agro-biodiversity. Monitoring of two nutrition indicators for biodiversity will allow for tracking composition and consumption of agro-biodiversity food products, and trends and changes to agro-biodiversity food consumption.

The indicators for monitoring the results of the third Component will monitor the work done by the Multi-Sector Platform in terms of policies and programmes (new and / or adapted laws and programmes), which have integrated the conservation of agro-biodiversity and nutritional properties of native species. Locally, municipal projects and initiatives (including municipal ordinances) that have integrated native products selected by the project in school meal programmes will also be monitored.

Finally, for monitoring the results of the fourth Component indicators have been selected to evaluate the impact of the communication and information campaign on people and institutions that have been sensitized through the dissemination of materials and implementation of communication/information plans. Furthermore, these indicators enable evaluation of the capacities strengthened and applied at the level of producers, processors, technical and political institutional staff regarding the conservation of agro-biodiversity, and the nutritional and health benefits of ecotypes selected by the project.

Sources of information and means of verification to support the M&E programme will be: (i) the National Information System on native Agrobiodiversity, nutritional value and adaptability to climate change and the Database on the nutritional content of agricultural biodiversity; (ii) participative progress monitoring and workshops with beneficiaries; (iii) on-site monitoring of the implementation of management plans and

agrobiodiveristy conservation and use practices; (iv) project progress reports prepared by the PTC with inputs from the focal points for each macro ecoregion; (v) consultants reports; (vi) participants training tests and evaluations; (vii) mid-term and final evaluations completed by independent consultants; (viii) financial reports and budget revisions; (ix) Project Implementation Reviews prepared by the FAO Lead Technical Officer supported by the Project Task Manager in the FAO Office in Bolivia Beijing and the PCU; and (ix) FAO supervision mission reports.

An independent Mid-Term Evaluation (MTE) will be held at the beginning of the third year of the project. The evaluation will review progress and effectiveness of implementation in terms of achieving project objective, outcomes and outputs. Findings and recommendation of this evaluation will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term if necessary. FAO will arrange for the MTE in consultation with project management. The evaluation will, *inter alia*:
a) review the effectiveness, efficiency and timeliness of project implementation;
b) analyze the effectiveness of partnership arrangements;
c) identify issues requiring decisions and remedial actions;
d) identify lessons learned on design, implementation and management;
e) highlight technical achievements and experience acquired, and
f) propose any mid-course corrections and / or adjustments to the implementation strategy, as required.

An independent final evaluation (FE) will take place three months before the terminal review meeting with all project partners. The FE will aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This Evaluation would also have the purpose of indicating future actions needed to sustain project results, expand on the existing Project in subsequent phases, mainstream and up-scale its products and practices, and disseminate information to authorities responsible for in situ and ex situ conservation and use of agrobiodiversity in Bolivia to assure continuity of the processes initiated by the Project.

Some critical issues to be evaluated in the midterm and final evaluations will be:
(i) the level of representation and participation of women and male farmers in conservaton and sustainable use practicess and the implementation of the Management Plans for in-situ conservation;
(ii) the level of understanding among local communities of the climate change adaptation and agroecological benefits from agrobiodiversity conservation and sustainable use practicess;
(iii) the level of understanding among local communities of advantages emerging from the cultivation of ecotypes with high nutritional value;
(iv) increase in the diversification of diet and level of dietary inclusion of the new species conserved;
(v) number of communities and families participating in the in situ conservation of agro-biodiversity and adoption of technologies for biodiversity conservation, and new best practice identified;
(vii) the extent to which the project has managed to create synergies with the programme strengthening INIAF including linking the Management Plans for in-situ Conservation with improved seed supply systems supported by INIAF as well as creating links and synergies between the in situ conservation strategies and ex situ conservation in the national network of germoplasm Banks managed by INIAF.
(viii) level of capacities built of communities to promote and market the products of agro-biodiversity, sustainability of created market links and degree of increase in income generated;
(ix) the level of inclusion of selected species in food security policies, programmes and projects, and school meals.

The FAO Project Task Manager will prepare the draft Terms of Reference (*TOR*) for the interim and final evaluations and consult with and incorporate comments from EMAGUA/DGBAP/PCU, the FAO BH,

LTU/LTO, and the FAO-GEF Coordination Unit. Subsequently the TORs will be sent to the FAO Office of Evaluation for finalization, in accordance with FAO evaluation procedures and taking into consideration evolving guidance from the GEF Evaluation Office. The TORs and the reports will be discussed with and commented upon by the project partners.

Monitoring and evaluation plan summary

The table below provides a summary of the main M&E activities reports, responsible parties and timeframe.

Type of M&E activity	Responsible Parties	Time-frame	Budgeted costs
Inception Workshop	EMAGUA and DGBAP/PCU, FAO Project Task Manager supported by the FAO LTO, BH, and the GEF Coordination Unit.	Within two months of project start up	USD 2 590
Project Inception Report	EMAGUA and DGBAP/PCU, FAO Project Task Manager cleared by the FAO LTO, LTU, BH and the GEF Coordination Unit.	Immediately after workshop	-
Design and set-up of project monitoring system (outcomes, progress and performance indicators, GEF Tracking Tool) including training of staff	EMAGUA and DGBAP/PCU, FAO Project Task Manager with training provided by the FAO LTO and the GEF Coordination Unit.	Before the second disbursement of funds	USD 5 100 (1 month Project monitoring Expert)
Field based impact monitoring	EMAGUA/DGBAP/PCU, other partners supporting the implementation of component 2, local beneficiary communities, and farmers	Continually	USD 103 350 (7 months of Project Technical Coordinator, 2 months of Project Monitoring Expert, 10 months of driver, 10 months of Macroregion Coordinators, Ex-ante and ex-post socio-economic investigation on producers income generation, and Ex-ante and expost investigation on dietary diversity per macroregion)
Supervision visits and rating of progress in PPRs and PIRs	EMAGUA/DGBAP/PCU, FAO Project task amaneger, LTO/LTU and the GEF Coordination Unit	Annual or as required	The visits of the FAO LTU/LTO and the GEF Coordination Unit will be paid by GEF agency fee. The visits of the EMAGUA//PCU and DGBAP will be paid from the project travel budget and their co-financing
Project Progress Reports - PPRs	EMAGUA/DGBAP/PCU with inputs from PPS	Six-monthly	USD 7 100 (2 months of Project Technical Coordinator, 1 month Project Monitoring Expert,)
Project Implementation Review - PIR	FAO PTM and LTO supported by the LTU, EMAGUA/DGBAP/PCU and cleared and submitted by the GEF Coordination Unit to the GEF Secretariat	Annual	Paid by GEF Agency fee
Cofinancing Reports	EMAGUA/DGBAP/PCU	Annualy	USD 2 400 (2 months of Finance Officer)

Technical reports	EMAGUA/DGBAP/PCU, FAO Project Task manager, LTO/LTU	As appropriate	-
Mid-term evaluation	External Consultant, FAO independent evaluation unit in consultation with the project team including the GEF Coordination Unit and other partners	At mid-point of project implementation	USD 40 000 for external consultant. In addition, either FAO staff time and travel or an additional consultant will be paid through the agency fee
Final evaluation	External Consultant, FAO independent evaluation unit in consultation with the project team and other partners	At the end of project implementation	USD 40 000 for external consultant. In addition, either FAO staff time and travel or an additional consultant will be paid through the agency fee
Annual audit report of project account	External independent auditor selected by the FAO office in Bolivia in consultation with the FAO GEF Coordination Unit and contracted by EMAGUA	Annually	USD 12 000
Terminal Report	EMAGUA/DGBAP/PCU, FAO Project task Manager, LTO/LTU, TSCR report UnitFAO LTO	At least one month before end of the Execution Agreeement	USD 2 500 (1 month of Project Technical Coordinator)
Total Budget			**USD 175 040**

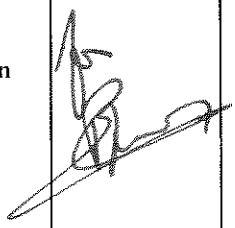
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Cynthia Viviana Silva Maturana	GEF Operational Focal Point	VICEMINISTRY OF ENVIRONMENT, BIODIVERSITY, CLIMATE CHANGE AND FORESTRY MANAGEMENT	03/29/2011

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	**Signature**	**Date** *(Month, day, year)*	**Project Contact Person**	**Telephone**	**Email Address**
Gustavo Merino, Director Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy TCI-Director@fao.org		February 05, 2014	Janice Albert	+39 0657053552	Janice. Albert@fao.org
Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org Tel: +3906 5705 5478					

ANNEX A:PROJECT RESULTS FRAMEWORK (either copy and paste the framework from the Agency document, or provide reference to the page in the project document where the framework could be found)

Please see Appendix 1 of the FAO GEF Project Document.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments from Council members at GEF Work Program inclusion

Canada

Comments

On the **Bolivia Conservation and Sustainable Use of Agrobiodiversity to Improve Human Nutrition in Five Macro Eco-regions** project, we note the comment made by the STAP that numerous agrobiodiversity projects have been supported in Bolivia over the years. While coordination and complementarity are clearly explained, we wonder if indeed another GEF-supported agrobiodiversity project in Bolivia is needed, given all of the new priorities and targets established at the CBD COP-10. We also note that the proposal focuses on agrobiodiversity for food security in Bolivia, and focuses on several key local crops. While this is certainly important for Bolivia's food security and should be supported, we wonder if it should be the GEF, with its focus on global environmental benefits, that should be called upon to provide this support.

Responses

1. While there have been a number of agro-biodiversity projects supported in Bolivia, the approach proposed by the FAO/GEF/DGBAP project will provide significant added value because of its focus at the importance of conserving agrobiodiversity with high nutritional value and resilience to climate change, as well as market incentives to conserve biodiversity. Once made aware of the benefits, the local population may have stronger incentives to conserve biodiversity.
2. Regarding the new priorities and targets established at the CBD COP-10, several points mentioned in the COP 10 Decision X/17, X/32, X/34, X/40 are addressed under the objectives of the project. For example, the COP Decision X/34 (Agricultural biodiversity), point 5 mentions: "The Conference of the Parties...*Requests* the Executive Secretary and invites the Food and Agriculture Organization of the United Nations and its Commission on Genetic Resources for Food and Agriculture to work together ... as necessary, *inter alia*: a) Underutilized crops, wild relatives of cultivated plants and other potential food sources, to improve human nutrition, to address the impacts of climate change and other pressures as well as to contribute to food security; b) On-farm, in situ and ex situ conservation of agricultural biodiversity; in accordance with decision IX/1 of the Conference of the Parties".
3. The project aims to achieve the following global environmental benefits: conservation and systematic organization of knowledge and best practices associated with genetic diversity conserved in-situ; conservation of globally important habitats due to their nutritionally-rich agro-biodiversity; local communities put into practice improved livelihood and production systems respectful of biodiversity, reducing pressures on natural systems and resources associated with biodiversity; strategy is identified for the replication of a pilot intervention model in other similar agro-ecologies, based on the ecosystem approach to conserve and use biodiversity sustainably, select species nutritionally-rich and resilient to climate change, and promoted through nutrition and agro-biodiversity labels.
4. The project will strengthen Bolivia's capacities to directly assist the implementation of the programme of work adopted at CBD COP8 "Cross-cutting initiative on biodiversity for food and nutrition". Through the assessment of nutritional benefits from local agro-biodiversity food products, it will contribute to international efforts to address global concerns related to diets and health and the increasing appreciation of sustainable use of local agro-biodiversity. The international efforts of the government of Bolivia in supporting the implementation of these initiatives under the CBD will be facilitated by two project outcomes: improved access to systematic information on food sources from agro-biodiversity and the nutritional and health value of plant/crop ecotypes for policymakers,

consumers and local communities; and increased awareness of conservation and sustainable use and the nutritional benefits of agro-biodiversity among government institutions, consumers, processors and producers. Materials and methodologies used in awareness raising campaigns and capacity building may be replicated in similar contexts in the region. The transfer of information and data regarding Bolivia's agrobiodiversity to other countries, mainly in Latin America, with similar macro eco-regions (particularly regarding the analysis of resistance to climatic variability, nutritional content, and genetic erosion and trends of plant/crop ecotypes) will be an important aspect of the global benefits.

France

Questions

We support this project which is globally well designed.

We share and would like to emphasize STAP's questions on the project which should be addressed during project development:

a) - the project should better establish the baseline status of agrobiodiversity and how agrobiodiversity monitoring will be implemented and sustainably financed beyond the project?

b) - the profitability of the agrobiodiversity-friendly cultivation practices compared to current agricultural systems should be thoroughly assessed from a micro-economic point of view (level of the smallholders). If this profitability is not secured (which is usually the case, because payment of certification of agrobiodiversity-friendly cultivation practices are usually beyond market prices acceptability), the project should establish a sustainable financing strategy for the agrobiodiversity-friendly cultivation practices (probably a mix of market prices, labels and transversal assistance from taxes or conservation trust funds to the conservation of Agrobiodiversity).

Opinion: favourable, if the above recommendations (a) and (b) are addressed during project development.

Responses

a) The baseline status of agrobiodiversity has been defined in the 5 macro-ecoregions and the species to be conserved were pre-selected. Regarding the agrobiodiversity monitoring, an indicator for food consumption was developed by FAO and this will be used for monitoring the contribution of agrobiodiversity in nutritious and diversified diets. The project partners will be trained on the application of these indicators.

Also, a Permanent Monitoring Centre will be set up supported by the Project and a Monitoring Protocol will be developed (output 2.1.5). The Center will perform annual evaluations of the species listed in the register of ecotypes of cultivated and wild varieties, and will be sustained by the agreements between Universities, DGBAP and INIAF all participating in the monitoring centers ensuring continuous monitoring of genetic and climatic trends and threats after the project. The Protocol will define method, strategy and responsibilities for monitoring climate change, the temporal and spatial distribution of seed flow of ecotypes and varieties. It will be signed by the *DGPAB* Unit of the Vice-Ministry of the Environment, the Faculty of Agronomy of the Universidad Mayor de San Andres and other universities that will be identified early on in the project.

Tools will be developed for the management, monitoring, processing, analysis and dissemination of geographical information which have the capacity to handle, capture, manage, interpret, visualize and analyze information from a territorial space. These instruments will provide Geographic Information Systems that support the monitoring of pilot areas of in-situ conservation, and provide timely information for decision-making and the operational management for monitoring the Management Plans.

b) The project includes a marketing strategy of agrobiodiversity-friendly products based on a mix of solutions to enable the smallholders to gain a premium for applying conservation practices. Once the final selection of species has been validated and analyzed, AgBD certification/ origin/ nutrition labels will be developed to

support marketing of the selected products. Using the Participatory Guarantee System (PGS) results and experiences with organic certification as a model, an analysis of options for the establishment of an AgBD certification/ origin/ nutrition label will be carried out with participation of communities. The AgBD nutrition label will be approved by SENASAG (National Service for Agricultural Health and Food Safety) and will contain nutritional information scientifically verified by INLASA and be in compliance with in-situ conservation of agro-biodiversity criteria.

Studies developed during the *PPG* phase have identified needs related to incentives and subsidies to facilitate market integration of the selected species. Such incentives will be applied on a case by case basis, according to the specific needs and characteristics of the products. In addition, the sustainable financing strategy will be based on the inclusion of selected species in school meal programs, through which the smallholders will have access to a new market and be able to improve their incomes. An expected project outcome 2.2.a is: income generation (approximately USD 500 / year per family) in participating communities through the production, processing and agrobiodiversity-friendly marketing of selected ecotypes plants/crops.

Germany

Questions
The project aims to conserve and use agrobiodiversity in a sustainable manner to improve human nutrition in five macro-ecoregions. It is generally in line with current activities of the German development cooperation in the field of agricultural development and natural resource management in Bolivia.
Germany suggests to concentrate in BD 2 (measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks) on the implementation of already existing laws which are favorable for the conservation and sustainable use of agrobiodiversity. These laws do already exist; the problem is their implementation and the monitoring and evaluation of the implementation.
An important additional step to achieve outcome BD 2 would be to build up platforms with the participation of the private sector, the civil society, non-governmental organizations, and representatives of the government in order to coordinate the different activities in the field of agrobiodiversity.

Response
During the PPG phase, the approach which has been used in the protected areas carried out under the auspices of German Development cooperation was taken into consideration and will be included in the project as describe under Component 2 of the project document.

Following the recommendation made, the project component regarding policies and regulatory framework (Component 3) will mainly focus on the issues regarding the application of the already existing laws and the translation of them into intersectorial programmes, as this point has been recognized as one of the main barrier for the implementation of the policies. In line with the recommendation a Technical Committee on Biodiversity has been established within an already existing Multisectorial Platform on Food and Nutrition Security (Consejo Nacional de Alimentación y Nutrición-CONAN) with the participation of Governmental institutions, non-governmental organizations and civil society dealing with agro-biodiversity.

Comments from STAP

1. How is the resilience to climate change going to be assessed? What will be the role of the local communities in such assessment and how the issue of climate change vulnerability/resilience will be incorporated in the work with them?

The resilience to climate change and the role of the local communities in assessing their vulnerability and resilience has been considered through the inclusion of the following activities and products:

A. A first participatory selection of species was based on agro-environmental criteria, with experienced technical staff, producers and researchers engaged in in-situ conservation. Agro-environmental criteria were: (i) the species/crop is native to the macro-region, (ii) the species/crop is managed and used in a sustainable way, (iii) the tolerance to biotic and abiotic factors (iv) loss of genetic variability (genetic erosion).

B. Climatic data provided by the National Meteorology and Hydrology (SENAMHI) overlapped with crop requirements in the different stages of the cropping cycle will be used to verify which species among those selected for the project are better adapted to the impacts of climate change and variability.

C. If more reliable data and scientific evidence are needed, molecular evaluations to assess tolerance or resistance to major diseases and pests will be assessed through the project partner "Pairumani Research Center".

D. Other tools have been considered during the PPG phase which will be validated through a community participatory process. Most significant are the Mobile Meteorological Stations, to be positioned in selected places relevant for climate change, to monitor humidity, rainfall level, soil characteristics, etc. While each macro-region can be monitored through this tool, the macro-region Valles (where one community owns lands embracing ecological niches distributed in different altitudes) could be considered the main pilot site for monitoring climate change.

Project component 2 includes several activities that directly involve the local communities and incorporate their practices using agrobiodiversity to cope with climate variability and other biotic and abiotic stress factors. Subcomponents 2.1 and 2.2 include activities such as: (i) Conduct research and recovery of traditional knowledge and technologies on the conservation of agro-biodiversity; (ii) Develop community registry and inventory of ecotypes / varieties cultivated, wild relatives and wild species; (iii) Assess the temporal and spatial distribution of native seeds; iv) Develop participatory methodologies for in-situ classification of the native species, and ethno-botanic, morphological and physiological evaluation of these species (the process aims at achieving a consensus on knowledge and experience, in order to have agro-ethnobotanical and botanical standard descriptors); (v) Prepare 15 community Management Plans for selected underutilized crop/plant ecotypes through community participatory processes (the plan should include indicators and their targets for the implementation of the management plans); (vi) Competitive community contests for the conservation of agro-biodiversity as an incentive and to ensure the participation of communities and local producers in conservation processes.

2. One of the expected outcomes of the project is that 50% of the land of the communities will be devoted to agrobiodiversity-friendly cultivation. What is the percentage now, what is the management of the land which is not managed in that way at present and what would be the socio-economic consequences of the planned change?

In the selected project sites, currently there are no communities with land devoted to AgBD-friendly production. The project will aim to have 50 communities/6,000 has practicing in-situ conservation of selected species through the execution of Management Plans by the end of the project (indirectly 125 communities/ 15,000 ha will be impacted after the end of the project through scaling up). Moreover, one thousand hectares among the 50 communities will be under AgBD production standards and product labels (monitored through the application of the GEF BD-2 tracking tool). Partner Ministries will be committed to facilitate the

extension of areas under AgBD production standards and product labels in further 2,500 ha among 125 new communities after the end of the project.

Main socio-economic outcomes are: improving diversity of diets and the quality of school meals and income generation (approximately USD 500 / year per family) in participating communities through the production, processing and marketing of selected ecotypes plants/crops and the increased prestige and preservation of traditional cultures.

3. How will the genetic/agrobiodiversity trends be monitored in the field once the project is implemented in order to assess whether the planned changes in land use will have a significant positive impact on crop agrobiodiversity?

A Monitoring Protocol will formalize the establishment of a Permanent Monitoring Centre (output 2.1.5) capable of annual evaluation of the species listed in the register of ecotypes of cultivated and wild varieties, ensuring continuous monitoring of genetic and climatic trends and threats also after the end of the project. The Protocol will define the method, strategy and responsibilities for monitoring climate change, the temporal and spatial distribution of seed flow of ecotypes and varieties. It will be signed by the *DGPAB* Unit of the Vice-Ministry of the Environment, the Faculty of Agronomy of the Universidad Mayor de San Andres and other universities that will be identified early on in the project which institutions will sustain the Center and monitoring activities after the end of the project.

The Permanent Monitoring Centre will provide technical and operational tools, such as Geographic Information Systems, that support the management of pilot areas of in-situ conservation, and provide timely information for decision-making and the operational management of the project, including thematic maps of the location and a description of areas of native species for biodiversity use, agro-ecological zoning, land use, genetic trends, and the distribution of variability and diversity and climate vulnerability per crop/species. This will ensure to monitoring of in situ conservation Management Plans and to readjust the ongoing in situ conservation activities.

The classification methodology on genetic trends and agro-biodiversity threats will be those used by the Ministry of Environment and Water in the "Red Book of endangered flora of Bolivia. Andean Zone". The publication takes into account and classifies threatened species using the International Union for Conservation of Nature (IUCN) characterization methodology. Among the pre-selected species for the project, five are already recognized as threatened as Vulnerable (VU) and Endangered (EN). These species are: Carob (VU), Janchicoco Palma (VU), Valley Chile (EN), Sahuko (EN), Pacay (EN).

4. Wild crop relatives are mentioned, although they are clearly not the main target of the proposed intervention. The project will benefit for a clearer explanation as to how these will be considered.

The in-situ conservation of crop wild relatives will take advantage of the experience gained through the UNEP/*GEF* project on "*Crop Wild Relatives*" implemented by the Ministry of the Environment and Water, to identify species with important nutritional content that could be considered for conservation (e.g. *quinoa ahara*). For the Management Plans of crop wild relatives, differentiated from the conservation plans for the other species, the Conservation Manual developed in the "*Crop Wild Relatives*" Project will be taken into account, along with a set of tools that includes guidelines on how to conduct inventories of Creole varieties and crop wild relatives that the *FAO* Plant Production and Protection Division is developing. For crop wild relatives with wider distribution and a very large population, some sampling methodologies will involve the use of *GIS* to identify populations most likely to contain the main features prioritized by the project. Such

features will be identified beforehand in consultation with farmers and those engaged in conservation according to specific requirements (resistance to pests / diseases / tolerance, and abiotic stress).

5. How will the market benefits be assessed, with respect to the current situation?

To assess the income generated by the project, an ex-ante and an ex-post investigation will be carried out among the beneficiary communities to assess the impact on incomes/livelihoods. There will be food consumption surveys in the first and fourth years of project which will show the changes in food availability and intakes. More agrobiodiversity foods will be provided in the school meal programmes, this can be demonstrated by school procurement records. The yields from farms participating in the project will be recorded over time. Through product differentiation (labeled as AgBD and nutrition labels) the market will provide higher value for local products.

GEF Secretariat comments to be addressed at CEO endorsement

No comments pending for CEO endorsement

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[7]

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG GRANT APPROVED AT PIF:			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
5011 Salaries Professional (Parent)	0,00	0,00	0,00
5012 Salaries General Service (Parent)	5.985,00	5.985,00	0,00
5013 Consultants (Parent)	72.600,00	60.868,00	10.000,00
5014 Contracts (Parent)	2.511,00	2.511,00	0,00
5021 Travel (Parent)	7.328,00	7.328,00	0,00
5023 Training (Parent)	16.547,00	14.059,00	4.221,00
5028 General Operating Expenses (Parent)	29,00	29,00	0,00
Total	**105.000,00**	**90,779**	**14.221,00**

[7] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent funds, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)