



PART I: PROJECT IDENTIFICATION

Project Title:	Mainstreaming of the use and conservation of agro-biodiversity in public policies through integrated strategies and <i>in situ</i> implementation in three provinces in the Andean highlands.		
Country(ies):	Ecuador	GEF Project ID:¹	4777
GEF Agency(ies):	FAO	GEF Agency Project ID:	615694
Other Executing Partner(s):	National Institute of Agricultural Research Ecuador (INIAP); Heifer Foundation Ecuador	Submission Date:	20 February 2011
GEF Focal Area (s):	BD	Project Duration (months):	36
Name of parent program (if applicable): • For SFM <input type="checkbox"/>		Agency Fee:	125,000

A. FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-Financing (\$)
BD-2	Outcome 2.1: Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation	Output 2.2: National and sub-national land-use plans that incorporate biodiversity and ecosystem services valuation Output 2.3: Certified production landscapes and seascapes (9,000 hectares)	GEFTF	860,000	3,810,000
BD-2	Outcome 2.2: Measures to conserve and sustainable use of biodiversity incorporated in policy and regulatory frameworks	Output 2.1: Three (3) policies and regulatory frameworks for production sectors	GEFTF	200,000	500,000
BD-4	Outcome 4.1: Legal and regulatory frameworks and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions	Output 4.1: One (1) access and benefit-sharing agreement that recognizes the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), including the fair and equitable sharing of benefits	GEFTF	77,000	220,000
Sub-Total				1,137,000	4,530,000
Project management cost ³				113,000	450,000
Total project costs				1,250,000	4,980,000

¹ It is very important to consult the PIF preparation guidelines when completing this template.

¹Project ID number will be assigned by GEFSEC.

³Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

³GEF will finance management cost that is solely linked to GEF financing of the project.

B. PROJECT FRAMEWORK

Project Objective: Integrate the use and conservation (*ex situ* and *in situ*) of agro-biodiversity in the Ecuadorian highland provinces of Loja, Chimborazo, and Imbabura with the aim of contributing to the sustainable management and resilience of agro-ecosystems in the Andean and other similar mountain dry-land regions.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
1. Integration of the sustainable use and conservation of agro-biodiversity in public policies and their implementation	TA	<p>1.1 Public policy and legislation integrate measures for the sustainable use and conservation of agro-biodiversity at different government levels.</p> <p>1.2 An international treaty implemented at the national level (International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), facilitating access and benefits sharing of genetic resources for agro-biodiversity</p> <p>1.3 9,000 hectares of land managed under three Land-Use and Development plans of the provincial governments of Loja, Chimborazo, and Imbabura, integrating the valuation, the sustainable use and conservation of agro-biodiversity</p>	<p>1.1.1 One (1) national strategy for the implementation of public policies on agro-biodiversity</p> <p>1.1.2 Analysis of public policies and sectorial regulations and gaps and incentives for the sustainable use and conservation of agro-biodiversity identified</p> <p>1.1.3 Three (3) public policy proposals elaborated in a participative manner at the national, provincial, and parish levels on conservation and sustainable use of agro-biodiversity.</p> <p>1.1.4 Mechanisms of coordination and strategic alliances established between INIAP, ministries, and autonomous decentralized governments (GAD) regarding policies that promote and conserve agro-biodiversity</p> <p>1.1.5 One (1) regulatory proposal for the Law on Agro-biodiversity elaborated in consultation with key stakeholders with a focus on gender and interculturality and presented to decision-makers</p> <p>1.2.1 Systematization of existing legislation regarding the application of farmer rights and the access and benefit sharing from genetic resources</p> <p>1.2.2 Development of protocols for the application of farmer rights by the pertinent state entities and the implementation at the national level of the multilateral system</p> <p>1.2.3 Execution of an advocacy campaign promoting the rights of farmers in accordance with article 9 of the ITPGRFA and the benefit sharing (article 13 of ITPGRFA) with small farmers and indigenous organizations</p> <p>1.3.1 Elaboration of priority indicators and principles of the conservation and sustainable use of agro-biodiversity in the areas of intervention.</p> <p>1.3.2 Three (3) Land-Use and Development plans integrating the valuation, the sustainable use and conservation of agro-biodiversity developed and implemented through three (3) strategic agreements between the Ministry of Agriculture and the provincial governments of Loja, Chimborazo and Imbabura and the active involvement of farmers.</p>	GEFTF	127,000	500,000
2. Scaling up of good practices in conservation and sustainable use of agro-biodiversity	INV	2.1. One (1) national gene bank functioning in accordance with international standards ensuring the mapping	2.1.1 implementation of a plan for capacity strengthening of the germplasm bank of INIAP to achieve international standards, including training of personnel, improvement of	GEFTF	860,000	3,630,000

<p><i>in situ</i> (five (5) farmers' organizations in three (3) microcenters: Loja, Chimborazo and, Imbabura) and <i>ex situ</i> (National gene bank, with its headquarters in INIAP)</p>	<p>and conservation of native plant genetic material with stress tolerant characteristics important for overcoming future climate, land degradation and other agronomic challenges in the development of Andean and similar agro-ecosystems</p> <p>2.2. Five (5) farmer and indigenous organizations have incorporated the sustainable use and conservation of agro-biodiversity in agricultural systems in nine thousand (9,000) hectares, increasing the agro-biodiversity in farmers fields by 40%</p> <p>2.3 Nine thousand (9,000) hectares of productive land are certified as being cultivated under good practices of <i>in situ</i> conservation of agro-biodiversity supported and sustained by five (5) local networks of small- and medium-sized small farmers and indigenous producers (Loja: Saraguro and Paltas; Chimborazo: Colta, Guamote; Imbabura: Cotacachi and Otavalo)</p>	<p>procedures and infrastructure, and acquisition of equipment</p> <p>2.1.2 Fifteen (15) new collections of under-used crops with important stress resistant characteristics</p> <p>2.1.3 Five (5) agreements signed between five (5) farmers'/indigenous organizations and INIAP regarding collaboration on agro-biodiversity, integrating <i>ex situ</i> and <i>in situ</i> actions applying a participative and gender-responsive approach .</p> <p>2.2.1 Nine thousand (9,000) families (including 3,000 female led households, 30%) from the three (3) microcenters of intervention (Imbabura, Chimborazo, and Loja) are trained on the conservation and the management of agro-biodiversity <i>in situ</i></p> <p>2.2.2 Three (3) local inventories have been established regarding agro-biodiversity and local knowledge present in the microcenters and five hundred (500) community registers regarding crop varieties on family farms have been established through participatory investigation</p> <p>2.2.3 Five (5) local markets for seed exchanges and agro-biodiversity products have been established in the microcenters of Loja, Chimborazo, and Imbabura, and one (1) regional market of seed exchange and agro-biodiversity products with the participation of at least sixty (60) communities from the microcenters.</p> <p>2.2.4 Two (2) agro-biodiversity gardens and five (5) community banks have been established and are functioning in order to multiply and re-introduce at least twenty (20) local representative species on the farms</p> <p>2.3.1 A portfolio of good practices regarding agro-biodiversity has been established from nine thousand (9,000) hectares of agricultural land and, as a consequence, certification criteria have been established for good practice for conservation</p> <p>2.3.2 One thousand (1,000) families (including at least 300 female led households) have been trained to produce and commercialize agro-biodiversity products with an agro-ecological approach</p> <p>2.3.3 Three (3) participatory systems of local certification have been established that certify three (3) distinctive labels for the application of good agro-biodiversity conservation practices, managed by five (5) local networks of farmer and indigenous organizations</p> <p>2.3.4 One (1) label for products conserving the native agro-biodiversity in Ecuador developed and based on the experiences of the local certifications and labels</p>			
---	---	--	--	--	--

		2.4 Increase in the added-value of products derived from agro-biodiversity through local community processing enterprises (at least USD 1,200 per year in increased income per family participating in community enterprises in the provinces of Loja, Chimborazo, and Imbabura)	2.4.1 One (1) weekly local market of commercialization is established in each microcenter 2.4.2 Three (3) community agro-enterprises have increased the use of twenty-five (25) native varieties whose recuperation is sustained through the increased added-value of products 2.4.3 Nine thousand (9,000) ha of farmland belonging to two thousand (8,000) farmers (of which 600 women) are cultivated under agro-biodiversity conservation practices and processing derived products to increase added-value through community micro-enterprises 2.4.4 Three (3) agro-tourism routes (tourism of native agro-biodiversity) developed in the microcenters 2.4.5 Two (2) systemization documents of experiences have been created in the three (3) microcenters			
3. Education and awareness-raising programs for decision-makers, for teachers, and for consumers regarding the ecological, cultural, and nutritional value of native agro-biodiversity	TA	3.1 Decision-makers from four (4) governmental bodies (National Assembly, Ministry of Agriculture, Ministry of Education, and Ministry of Economic and Social Inclusion) informed and aware of the ecological, cultural, and nutritional value of agro-biodiversity 3.2. The capacities of local schools, technical colleges, and community institutions strengthened in order to support the use of local agro-biodiversity in local diets 3.3. Rural and urban populations of the microcenters of intervention recognize the value of local agro-biodiversity and consume products derived from it	3.1.1 One (1) education and awareness program for decision-makers has been developed; In this context, two (2) informational workshops and fifteen (15) training workshops on the importance of agro-biodiversity have been organized. At least 30% of participants are women. One methodological guide has been developed. 3.2.1 One hundred and twenty (120) teachers from forty-five (45) rural education centers trained regarding the nutritional value of local agro-biodiversity 3.2.2 Forty-five (45) rural education centers from the three (3) microcenters incorporate the subject of agro-biodiversity in their educational curriculum 3.3.1. At least ten (10) publications have been developed regarding the nutritional importance of agro-biodiversity with different approaches and depending on the targeted audience 3.3.2 Promotional campaign conducted on the importance of food security and sovereignty and the benefits of the conservation and use of agro-biodiversity	GEFTF	150,000	400,000
Sub-Total					1,137,000	4,530,000
Project management Cost					113,000	450,000
Total project costs⁴					1,250,000	4,980,000

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	INIAP	In-kind	500,000
National Government and other international sources	INIAP	Grant	700,000
GEF Agency	FAO	In-kind	50,000
GEF Agency	FAO	Grant	600,000
National NGO	HEIFER	In-kind	200,000

National NGO	HEIFER	Grant	200,000
National Government	SENESCYT (Secretario Nacional de Educación Superior, Ciencia, Tecnología e Innovación)	Grant	500,000
Local Government	Loja Province Government	In-kind	300,000
Local Government	Loja Province Government	Grant	270,000
Local Government	Saraguro municipal government (Loja)	In-kind	60,000
Local Government	Saraguro municipal government (Loja)	Grant	60,000
Local Government	Chimborazo Province Government	In-kind	500,000
Local Government	Chimborazo Province Government	Grant	500,000
Indigenous Organization	UNORCAC	In-kind	300,000
Indigenous Organization	UNORCAC	Grant	150,000
Indigenous Organization	Corpoandes	In-kind	60,000
Indigenous Organization	Corpoandes	Grant	30,000
Total Co-financing			4,980,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY¹

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	(in \$)		
				Project amount (a)	Agency Fee (b)	Total c=a+b
FAO	GEFTF	BD	Ecuador	1,250,000	125,000	1,375,000
Total Grant Resources						

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

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. THE GEF FOCAL AREA STRATEGIES:

The project is consistent with the objectives BD-2 “Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors” and BD-4 “Build Capacity on Access to Genetic Resources and Benefit Sharing” of the Biodiversity Strategy of GEF5.

Component 1 will contribute to objective BD-2, outcome 2.1 through: i) the elaboration of three public policies and regulations that incorporate measures for the sustainable use and conservation of agro-biodiversity at different government levels, ii) the elaboration of three development and land use plans integrating the value, sustainable use, and conservation of agro-biodiversity and its implementation through three (3) strategic alliances and nine (9) workshops with provincial governments of the provinces of Loja, Chimborazo, and Imbabura and the training of farmers. Moreover, component 1 will contribute to objective BD-4 outcome 4.1 through the implementation at the national level of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), facilitating access to and benefit sharing from agro-biodiversity genetic resources. This will include: i) revision of existing legislation regarding the application of farmer rights and access and benefit sharing from genetic resources to insure a systematic legal framework; ii) development of protocols for the application of farmer rights by the pertinent state entities and the implementation at the national level of the multilateral system; and iii) execution of an advocacy campaign promoting the rights of farmers in accordance with article 9 of the ITPGRFA and the benefit sharing (article 13 of ITPGRFA) with small farmers and indigenous organizations.

Component 2 will contribute to objective BD-2 outcome 2.2 through: i) the integration of the use and conservation of agro-biodiversity in agricultural systems of 5 small farmer and indigenous organizations through participatory investigation, local inventories, seed exchanges, the creation of seed banks and the strengthening of agro-biodiverse gardens, ii) the integration of agro-biodiversity products in local markets and community agro-enterprise initiatives and agro-tourism, including the development of a system of guarantee (label) that certifies that the products are produced applying good practices for conservation of local agro-biodiversity, and iii) the strengthening of the National Germplasm Bank of Ecuador, whose headquarters are in INIAP, for the conservation *ex situ* of agro-biodiversity.

Component 3 will equally contribute to objective BD 2 through: i) raising awareness and informing decision-makers in four Government bodies (National Assembly, Ministry of Agriculture, Ministry of Education and the Ministry of Social and Economic Inclusion) about the ecological, cultural and nutritional value of agro-biodiversity, ii) strengthening the capacities of local schools, technical colleges and community institutions in order to support the use of agro-biodiversity in local diets, and iii) a promotional campaign targeted at the

urban and rural populations of the microcenters of intervention on the importance of food security and sovereignty and the benefits of the conservation and use of agro-biodiversity.

A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

N/A

A.2 NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPS, NPFE, ETC.:

In 1992, Ecuador ratified the United Nations Convention on Biological Diversity and in 2000 it developed the National Policy and Strategy on Biodiversity and its Action Plan (NBSAP). The NBSAP mentions sustainability in agricultural and livestock production, the enhancement of production diversification, the adoption of clean technologies, and the efficiency of germplasm banks for guaranteeing the conservation of agro-biodiversity through the strategy "Consolidating and Releasing the Potential of Sustained Productive Activities Based on Native Biodiversity." The NBSAP also mentions the possibility of distributing the benefits of the sustainable use of biodiversity in local communities through, for example, sustainable community tourism. The project proposal will contribute to the diversification of production based on native agro-biodiversity through its support for agro-tourism businesses, biodiverse farms, local markets for seed exchange, local commercial markets for agro-biodiversity products, community seed banks, and increasing the added-value of agro-biodiversity products. Moreover, the project will support the efficiency of the germplasm banks by strengthening the National Germplasm Bank of INIAP.

The project is also coherent with the National Development Plan of "Buen Vivir 2009-2013," launched by the Ecuadorian government through the National Secretary of Planning and Development. The priority strategies of the Plan include the following: 6.3) Increase productivity in real terms; 6.10) Sustainability, conservation, knowledge of natural heritage and development of community tourism; 6.11) Development and territorial planning, deconcentration, and decentralization.

Finally, the National Assembly approved the Law of Food Sovereignty, which includes many sections related to the protection of agro-biodiversity, including the free exchange of seeds; research on food sovereignty; the institutionalization of research; principles for economic, social, and territorial inclusion; the principles of solidarity, equality, and interculturality; the protection of ancestral knowledge; the promotion of agroecological and organic production; the promotion of rural community associative enterprises; and incentives for consumers to purchase higher quality foods with better nutritional values.

B. PROJECT OVERVIEW:

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

Ecuador has a great biological diversity and a high degree of endemism. It has been recognized as one of the 17 megadiverse countries in the world, hosting the greatest number of plant species in relation to its size. The flora of Ecuador comprises between 20,000 and 25,000 species of vascular plants, with percentages of endemism ranging from 20 to 25%.

Ecuador also has a rich cultural diversity given the presence of 14 indigenous nations. These groups contribute with their practical knowledge on conservation and agricultural biodiversity. A study of the dynamics of the conservation of Andean roots and tubers (RTAs) in rural communities of the Las Huaconas sector of the province of Chimborazo revealed that farmers of this area conserve a large variety of RTAs, such as *mashua*, *oca*, *melloco*, potatoes, white carrots, *jicama*, and *canna*. These farmers have carried out this activity for centuries and it is important to understand the dynamics of the conservation of these resources over time.

By studying four Conservation and Seed Exchange fairs in the province of Chimborazo between 1999 and 2002, researchers have been able to identify the species and varieties grown by participating farmers and to define qualitative and quantitative characteristics of agricultural diversity during one specific year. The results supported the hypothesis that farmers manage a considerable diversity of tubers and roots. The number of tubers and roots doubled, tripled, and even increased six-fold between the first and the last fairs in terms of *melloco*, *oca*, and *mashua*. The analysis revealed that there was also a wealth of ethnobotany in relation to different names and uses that farmers assign to crops. Specific support for conservation *in situ* was also noted with a substantial increase in native potatoes eco-types – 181; *melloco* with 100; *oca* with 79; *mashua* with 70; *jicama* with 30; *achira* with 20; and *miso* with 5 eco-types. In the "Agro-biodiversity Inventory of the *Cantón* of Cotacachi" in the province of Imbabura, it was observed that corn had 35 different common names. Given

the strong corn growing culture, only 20% of farmers were found not to cultivate corn. Yellow corn is the most common (Tapia and Carrera, 2010).

Despite these favorable conditions, the country faces problems of genetic erosion (loss, abandonment, or replacement of local varieties), whose causes can be summarized as follows:

- The promotion and adoption of production systems based on monoculture and the use of "improved" varieties, agrochemicals, and synthetic fertilizers. These systems replace local varieties and leads to genetic erosion.
- The destruction of forests and other natural ecosystems impacts wild relatives of crops and natural pollinators who are important components of the evolutionary development of agro-biodiversity. In addition, edible species are lost which, in many cases, are crucial for the diet of rural communities, especially in times of crisis.
- Poor knowledge regarding the ecological, cultural, and nutritional value of native plant species. Unsustainable agricultural systems have reduced the prevalence of or even eradicated many of the species traditionally relied on by indigenous communities. The production of these species is being limited due to few marketing opportunities.

Today, most of the world's food comes from only 12 crops and 14 animal species. In this context, Ecuador and many other countries are facing serious challenges in the coming years to ensure food security, while ensuring the protection of the environment. Reduced genetic diversity means fewer opportunities for growth and innovation needed to drive sustainable agricultural practices in an era of volatile food prices. As biodiversity declines in agriculture and food, food supply becomes more vulnerable and unsustainable, particularly given environmental challenges, such as climate change land degradation and water scarcity.

In addition, if local communities lose their rich heritage of traditional varieties and associated knowledge, they will also lose control of their production systems. This would create an external dependency on seeds and external inputs and put at risk their cultural identity. In these circumstances, food security would be in danger and could even cause social instability.

Although new legislation (the Constitution of 2008; the Organic Law of Food Sovereignty) includes significant advances towards the conservation of agro-biodiversity, such legislation has not led to action and, in effect, the government continues to promote agricultural and extractive activities that deteriorate agro-biodiversity.

Approach of the proposed project

Given that biological diversity and its associated knowledge are essential for food sovereignty and the conservation of plant genetic diversity is essential for overcoming future climate, land degradation and water scarcity challenges in particular in the Andean regions and regions with similar agro-ecosystems, the project objective is *to integrate the use and conservation of agro-biodiversity (ex situ and in situ) in the Ecuadorian highland provinces of Loja, Chimborazo, and Imbabura with the aim to contribute to the sustainable management and resilience of agro-ecosystems in the Andean and other similar mountain dry-land regions.*

This initiative is a response to the situation described above. As the World Action Plan for the Conservation and Sustainable Use of Plant Genetic Resources states, one of the most urgent actions for assuring the conservation and good use of plant genetic resources is the conservation and better use of local varieties of plants. The project will contribute to this line of actions by focusing on a group of native plants that are considered "forgotten" and are receiving little attention from the scientific and agricultural community.

The loss of agro-biodiversity could be avoided through actions taken jointly by researchers, civil society organizations, and farmers. Therefore, the project operates in alliance with the public sector (INIAP), the civil society (Heifer-Ecuador), and farmer's organizations in the three provinces. The direct beneficiaries are the members of five indigenous organizations, located in areas with high indices of poverty.

Agro-biodiversity conserved in situ by creating agro-ecosystems based on biodiversity even though very important for local food and nutrition security and agriculture development is just as well very important for the global development of agriculture and food and nutrition security. The global benefit of agro biodiversity conservation (as explained above and in further detail in section B.2 below) is that it gives access to a diversity of plant genetic characteristics necessary to overcome future climate and other stress challenges for agriculture production and food security. The advantage of in situ conservation is that the work with farmers as partners gives access to indigenous knowledge and practices and a sustainable use of agro biodiversity allowing for continuous adaptation to climate and other stress factors.

The incremental activities proposed in the three components of the proposal are supporting and complementing each other. In order to avoid duplicating actions and to optimize economic resources and obtain positive impacts, strategic alliances will be developed and actions will be coordinated with town councils, local governments, provincial councils. Local governments have already engage in the project with an initial indicative co-financing of USD 1 690 000 (Chimborazo province Government: USD 1 000 000; Loja Province Government USD 570 000; and Saraguro Municipal Government USD 120 000). Strategic alliances will also be developed with local indigenous organizations some of which have already engage by providing an initial indicative co-financing of USD 540 000 (UNORCA: USD 450 000; and Corpades; USD 90 000) for the project. By strengthening microcenters as spaces for uniting organizations, communities and families, zonal strategies will be designed to promote the recovery of agro-biodiversity important for the future development and resilience of agro-ecosystems in the Andean and similar regions. These zonal strategies will pick up on new responsibilities of decentralized and autonomous governments by establishing spaces for local dialogue that incorporate the proposals of territorial planning, the budget and policies. These spaces will require participation of organizations united with existing microcenters and networks or generated by small seeds producers that the project also seeks to strengthen. Working within local spaces will lead to demonstrable and replicable experiences for reproduction in other local spaces or in national policies.

The success and sustainability of the project is based on the broad experience and investments of the organizations involved (see baseline section below). Through the National Department of Plant Genetic Resources, INIAP has effectively supported conservation *ex situ* and *in situ* for thirty years. Currently, the National Germplasm bank conserves around 20,000 entries. Despite this institutional effort, a considerable diversity still remains to be conserved before genetic erosion leads to the disappearance of unique materials. The proposed project will overcome specific capacity, infrastructure and equipment shortcomings in achieving international standards and procedures for plant germplasm banks which will also allow for participation in international exchange, access and benefit sharing of plant genetic diversity. Further the project will support the establishment of 15 new collections of Andean crops. In order to achieve the incremental benefit of conservation for the future of agricultural development, INIAP will provide USD 1 200 000 of its budget and resources from other international sources to co-finance the proposed project. This includes resources from the project Yachay (Ciudad del Conocimiento - knowledge city) which will begin implementation in 2012. The Yachay Project will promote investigation and knowledge and strengthen the National Germplasm Bank in the implementation of new infrastructure, human resources, and newest generation equipment. Also the SENESCYT (Secretario Nacional de Educación Superior, Ciencia, Tecnología e Innovación) has engaged in the project to support the systematic mapping of biotic and abiotic characteristics allowing for the identification of stress tolerant traits in native varieties important for the future resilience of Andean and similar agro ecosystems and will provide USD 500 000 in co-financing. The investment will be sustained after the GEF project by the national budget which has been further secured the last years by the 2008 constitution. The article 281 of the constitution makes the Ecuadorian state responsible for “promoting the conservation and recuperation of agro-biodiversity and related indigenous knowledge as well as the use, conservation and free exchange of seeds”. The constitution is complemented by the National Development Plan for the Good Living (buen vivir – Sumak Kawsay) 2009-2013 policy 1.4 J which promote “establishment of seed and gene banks to ensure the conservation and free exchange and promote the related investigation”.

The sustainability of the operation of the national Germplasm Bank is further secured through the Annual Operation Plans and Budgets of the Bank and the complementary community gene banks sustained by the communities and local government budgets in local annual Operation Plans and budgets. Plant genetic material conserved in community gene banks are duplicated and also conserved in the national Germplasm Bank.

The Heifer-Ecuador Foundation has carried out a national project of agro-biodiversity conservation with 353 families in 7 provinces, recovering 12 species- 49 varieties of these species, and achieving the conservation of 20 species on 50 family farms of seed-producers. In order to scale-up these experiences in three microcenters (in the provinces of Loja, Chimborazo, and Imbabura), Heifer Ecuador will provide USD 400 000 in co-financing for the project.

Baseline for the proposed project:

The Government of Ecuador has the last five years made progress in the legal and policy framework for enhanced conservation of agro-biodiversity and access and benefit sharing (ABS) of plant genetic resources. A new regulatory framework for ABS was approved October 3rd, 2011 implementing decision 391 of the Andean Community (Comunidad Andina de Naciones – CAN). The objective of this framework is to establish complementary norms for the implementation of the decision contributing to the conservation of biodiversity and establish conditions for a just and equal access and benefit sharing. Ecuador has also taken various

initiatives for the implementation of the multilateral system related to the International Treaty on Plant Genetic Resources for Food and Agriculture (IP PGRFA), which is another important legal ABS instrument. A guideline for its implementation has been elaborated and will be published in January 2012. Under the new legal framework a Material Transfer Agreement (MTA) has been signed and implemented for *Phaseolus lunatus* with CIAT and a collection of *Vicia faba* is about to be sent to ICARDA under a similar agreement. However, when it comes to the legal framework for farmers rights and access to plant genetic resources the legislation is unclear and needs a systematic revision to be practical applicable.

For 30 years INIAP has been working on conservation as a complementary aspect of agro-biodiversity. Thus, it has implemented a National Bank of Germplasm with more than 20,000 entries, many of which are important for food sovereignty. INIAP has developed a series of projects to secure the conservation of agro-biodiversity through *ex situ* and *in situ* strategies that have permitted farmers from various areas of the Andes and the Amazon to improve their quality of life due to native varieties of plants and animals. International funds have helped to obtain these impacts since the 1980s and 1990s. Recently, state funds amounting to USD 10 million have assisted 20 000 farmers to preserve their agro-biodiversity. A series of activities have been carried out to maximize the benefits of under-utilized plants and collect partial inventories of various eco-geographic zones and various points of great agro-biodiversity. The last three years the national government of Ecuador has invested more than USD 500 000 in agro-biodiversity conservation in different geographical areas of Ecuador including the northern Amazon (Napo, Sucumbios and Orellana), the Imbabura province, Loja province, and Caña province. In these areas markets for Exchange of seeds have been established, native varieties have been recuperated and are now used by local communities, biodiversity fields cultivated by local communities are supported, and plant genetic material has been collected for conservation *ex situ* among other activities. This initiative received the 2009 UNDP Ecuadorial Award for the best conservation and use of agro-biodiversity initiative. In the next years the government will continue this work expanding to more activities aiming at sustaining the conservation and use of agro-biodiversity. The proposed project will allow for the consolidation of the past 30 years experiences in an improved systematic combination of *in situ* and *ex situ* conservation of agro-biodiversity including in particular varieties with tress tolerant characteristics important for the future adaptation of agro-ecosystems to increased climate variability in the Andes region and other mountain regions with similar changing climate conditions.

Heifer Ecuador is a non-governmental organization working in rural development in Ecuador since 1954. It is linked to Heifer International, but has been functioning independently since 1993. Since 1995, Heifer Ecuador has focused on promoting agroecology, the management of natural resources by small farmers, and the strengthening of grassroots organizations. Since 1997, a focus on gender equality was incorporated into Heifer Ecuador's project aims. In 2005, food sovereignty was incorporated as an orienting principle for Heifer Ecuador's work with farmers. This principle seeks to guarantee the self-sufficiency of farmers in terms of nutrition and, therefore, it promotes small farmer control of production, technology, and knowledge, while assuring the conservation of natural resources and protecting genetic variety among agricultural products.

In the areas covered by the current project (Loja, Chimborazo, Imbabura), Heifer-Ecuador has carried out 5 projects in the last three years investing USD 656 863 benefiting close to 4 thousand families from 28 organizations (communities, second grade organizations, indigenous NGO's, and networks). These projects have been oriented towards the sustainable management of natural resources in the hands of small farmers, the promotion and strengthening of agroecological production including the recovery of agricultural biodiversity; the support of local commercial activities; and the strengthening of organizations and networks of small farmers in terms of political action. Twenty native species, including tubers, cereals, vegetables, and fruits are being conserved *in situ* on the farms of 40 families and these species are being propagated among other small farmers as a result. Nine species (33 varieties) are being recovered, traded and propagated on community farmlands.

With the implementation of agroecological projects based on agro-biodiversity, the following achievements have also been obtained: an increase in income (100 USD monthly per family); an improvement in family nutrition (diversifying consumption from 50 to 100 products); an increase in savings due to increased self-sufficiency in dietary needs (162 USD monthly per family); an increase in savings by not purchasing chemical agricultural in-puts (240 USD yearly per family); an increase in productivity, diversity, and resilience on agroecological farms by more than 50%; 4 new strategies for commercialization; 64 local weekly markets; an increase in income obtained for agricultural products (100 USD monthly per family); and an increase in income obtained from processed products (from 3 to 10 processed products that generate an income of 100 USD monthly per family).

B.2. INCREMENTAL / ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:

The **global environmental benefits** that the proposed project will generate are all related to the increased conservation of agro-biodiversity and genetic traits in basic food crops important for the future development and resilience of mountain and dry-land agro-ecosystems similar to the ecosystems of the Andes region. The global importance of the conservation of agro-biodiversity has the last decade been reinforced by the challenges imposed by climate change on agriculture. The increased scarcity of water resources for agriculture in the Andean region is an issue this region has in common with other glacier fed agricultural regions and diversified agro-ecosystems and crop varieties important for food security more resistant to drought must be conserved and further developed and disseminated. The characterization of biotic and abiotic traits in different varieties and the conservation work made between the National Germplasm Bank and community seed banks have already provided important progress in developing drought resistant beans and wheat which can benefit other Andean countries and other regions through exchange of varieties facilitating access and benefit sharing. Similar work needs to be done for potatoes, quinoa, chocho (Andean lupin grain), corn and other Andean fruits, grains, roots and tubers. The increased climate stress also makes crops more sensitive to diseases and pests and genetic resistance often present in native crop species have become very important. Because of the biotic and abiotic characterization of native potato varieties improved disease resistant varieties are now under development.

Another important global benefit of the conservation of Andean agro-biodiversity is in relation to the global issue of land degradation and soil erosion in dry lands. To ensure future agriculture production in these areas in many cases the best option is to change the cultivation systems from monoculture and systems based on agro-chemical inputs to agro-ecological systems based on diversity to minimize risks from different stress factors, increase vegetation cover and soil organic carbon. In these systems varieties with multi tolerances to draught and plagues are important which are often only achievable by including and combining genetic characteristics from local native varieties.

The above mentioned crops (potatoes, corn, beans, wheat, quinoa, lupin but also other fruits, grains, roots and tubers), found in a great diversity of varieties in the Andean agro ecosystems but also cultivate in a range of other agro-ecosystems in the world, are very adaptable to the mentioned stress factors. The indigenous knowledge and practices related to the cultivation and conservation of these crops in situ combined with the research mapping biotic and abiotic traits of the plant genetic material undertaken by INIAP allow the stress tolerant crops to be easy adapted to different ecological zones in the Andean and other regions. Exchange with other regions facilitated by national germplasm banks backed up by community seed banks is very important to maximize diversity and access to plant genetic material useful for improved stress tolerance.

In concrete the global environmental benefits of the proposed project will include the following: i) the conservation of agro-biodiversity and mapping of genetic traits for stress tolerance in benefit of future generations of farmers primarily in mountain dry-land agro-ecosystems; ii) the contribution to conservation and recovery of genetic variety *in situ* (5 small farmers and indigenous organizations have incorporated the use and conservation of agro-biodiversity in their agricultural systems on 9,000 ha, increasing agro-biodiversity by 40% and improving the nutritional quality of small farmers diets by 10%; 9,000 ha have been certified for having complied with good production practices conserving agro-biodiversity, sustained by five local networks of small and medium farmers (Loja: Saraguro y Paltas; Chimborazo: Colta, Guamote; Imbabura: Cotacachi y Otavalo)) and *ex situ* conservation (the National Germplasm Bank, functioning according to international standards assuring the conservation of plant genetic material with importance for the future resilience of Andean and other dry-land mountain agro ecosystems, including 15 new collections of under-utilized crop varieties of fruits (tree tomatoes, blackberry, chigualcán, chamburo, mortiño, passion fruit, taxo); grains (quinoa, amaranto, ataco); roots and tubers (native potatoes, melloco, oca, mashua, jicama, white carrot, achira, miso)); iii) the identification of local genetic material with important agricultural characteristics, selected by small farmers and based on standardized studies of their local adaptation, without having to turn to the adoption of exotic varieties; and iv) the promotion of conservation, protection, and restoration of functions of eco-systems that are indispensable for the maintenance of agricultural activities, conserving agro-biodiversity in situ. Such functions include the provision and catchments of water; erosion control; the maintenance of wild species, pollinization, etc.

The incremental financing from GEF and co-financing from the project partners will allow for the development of the following incremental activities in each project component:

Component 1: Integration of the sustainable use and conservation of agro-biodiversity in public policies. In the baseline scenario Ecuador has based on the 2008 constitution made progress in developing a legal and policy framework for conservation and sustainable use of agro-biodiversity including an overall framework for ABS. However, these frameworks are still overall and national and lacks concrete sector policies and policies at province and local level, legislation that systematic protect farmers rights and access and benefit sharing is lacking, and the implementation of the framework in sectors and on the ground is very weak. The incremental cost of this project will in component 1 allow for concrete specifications for agro-biodiversity conservation and sustainable use in sector policies and programmes, implementation of policies through a concrete strategy and by integrating agro-biodiversity conservation in the planning of local territorial development and land-use, and by developing and implementing a legal framework systematically securing farmers rights in relation to ABS of plant genetic resources.

Component 2: Scaling up of good practices in conservation and sustainable use of agro-biodiversity in situ and ex situ. In the baseline scenario Ecuador has through NGOs, farmers and indigenous organizations, and the work of INIAP developed and implemented good practices and approaches for in situ conservation of agro-biodiversity important for food and nutrition security. INIAP has for more than 30 years built an ex situ collection of plant genetic resources in the National Germplasm Bank and is also conducting mapping of biotic and abiotic characteristics allowing for the identification of stress tolerant traits. However, with the new challenges of climate change and land degradation and decertification the scaling up of systematic use of agro-biodiversity to built resilient agro-ecosystems has become even more urgent as an alternative to failed monoculture systems dependent on high and predictable inputs of agro chemicals and water. Systematic mapping of stress tolerant traits in native crops and the participation of the Germ Plasm Bank in exchange of plant genetic material to insure access and benefit sharing to overcome future agronomic and climate challenges in Andean and similar agro-ecosystems has become very important. The INIAP germplasm bank collection lacks important varieties and mapping of resistant traits of native crops in Andean agro-ecosystems. The Bank also has weaknesses in human and equipment capacities in relation to comply with international standards and procedures for germplasm banks. The incremental resources of the proposed project will in component two finance scaling-up of agro-ecosystems based on sustainable conservation and use of native agrobiodiversity combined with systematic ex situ conservation by INIAP and mapping of important stress tolerant traits to overcome climate, land degradation and other agronomic challenges.

Component 2 will through partnerships between INIAP, SENESCYT, local governments, NGO, indigenous and farmer's organizations in three Andean provinces (Loja, Chimborazo, and Imbaburo) promote: i) implementation of local territorial development and land-use plan incorporating in situ conservation of agro biodiversity; ii) systematic mapping of characteristics of local varieties important for the future resilience of Andean and similar agro ecosystems; iii) strengthening of local seed banks and seed systems multiplying and distributing agro-biodiversity varieties through seed exchange fairs and sustaining the up-scaling of the use and conservation of agro-biodiversity; iv) up-scaling of sustainable incorporation of best practices for agro-biodiversity conservation and use in agro-ecosystems, product processing adding value, and markets through a lable system guaranteeing that the products come from production systems and practices favourable to the maintenance of agro-biodiversity. The three provinces include a range of sub Andean agro-ecosystems allowing for the conservation of varieties with a range of characteristics supporting the adaptation of agro-ecosystems at a global level. The emphases is on taking advantage of the extraordinary ecological and agro-biodiversity richness of these Andean provinces and the related indigenous knowledge and transform its agro-ecosystems into a living bank of diversity in constant transformation conserving varieties and important genetic characteristics backed up by ex situ duplications in the National Gene Bank. Through INIAP, which will be strengthened in its capacities and procedures to meet international standards, this work will allow for a permanent access to new genetic material for other Andean countries and countries with similar agro-ecosystem conditions. The incremental resources will also allow for the incorporation and biotic and abiotic mapping of 15 new collections of Andean native fruits, grains and roots and tubers not yet represented in the germplasm bank collection.

Component 3: Education and awareness-raising programs for decision-makers, for teachers, and for consumers. In the baseline scenario most in situ conservation initiatives are still focused at farmer's adoption of best conservation practices and exchange of seeds and products. However, in order to support and sustain the scaling up of incorporation of conservation and use of agro-biodiversity in farming systems key actors in the wider society needs to be aware of the benefits of the derivated products for health and the future development of agriculture. The incremental resources will in component three focus at three key actors in this process: decision-makers (national assembly, ministerial and local government), teachers and consumers. Through education, awareness raising and training programmes and incorporation in the curriculum of rural

education centers these actors will get increased knowledge and awareness of ecological, cultural, and nutritional value of native agro-biodiversity.

B.3. 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) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ“MAINSTREAMING GENDER AT THE GEF”.

The project includes a focus on gender equality oriented towards strengthening women’s access to agro-biodiversity. Women play a fundamental role in the selection, conservation and use of agro-biodiversity for nutritional and medicinal purposes. Women maintain knowledge of agro-biodiversity that they apply on a daily basis in the provision of food to families and communities. In addition, they are the principal actors involved in the commercialization of produce in local markets.

The project seeks to highlight the important roles of women in the conservation of agro-biodiversity, strengthening existing capacities and generating other skills that allow them to obtain greater benefits from the uses of agro-biodiversity. Affirmative action measures will be employed to guarantee their participation during the execution of the project, especially in training activities and the administrative and financial management of community agro enterprises.

These criteria are the product of prior experiences of Heifer Ecuador that have provided positive results regarding the empowerment of women.

Project Beneficiaries:

The five selected beneficiary organizations have more than 10 years experience in local organizing processes and their members promote productive activities in terms of crop and handicraft production. The direct and indirect beneficiaries are described in Table 1. The project will carry out activities in the rural sector, which suggests that the identified population is dedicated principally to agricultural and livestock activities.

Table 1. Number of direct and indirect beneficiaries.

Provinces	Activities	Direct Beneficiaries	Indirect Beneficiaries
Loja Chimborazo Imbabura	Training	1,500	600
	Agroindustry	600	500
	Biodiverse farms	500	150
	Agro-tourism	150	800
	Local fairs	500	2,000
	Barter fairs	1,000	500
	Education	3,000	1,500
Total		7,250	6,050

Direct socioeconomic benefits:

The farmers of the counties of Saraguro and Paltas (Loja); Cotacachi, and San Pablo (Imbabura); and Colta and Guamote (Chimborazo) will be able to enrich and diversify the agro-biodiversity of their farms through the creation of communal seed banks and productive initiatives in agro-tourism and local agroindustry in order to deal with their food insecurity, the degradation of their environment, and their low incomes. The benefits will include the following:

- Access to seeds selected by the families involved
- Conservation and promotion of under-utilized varieties
- Strengthening of local human talent for the production of seeds
- Provision of strategic seed reserve
- Production of high quality seeds in semi-formal systems
- Guarantee of security of seeds on the farm

- Conservation of traditional varieties through the promotion of their value (medicinal, cultural, religious, nutritional)
- Establishment of ties with national seed systems and germplasm banks
- The exchange of germplasm, information, innovations and technologies between farmers and researchers
- The increase of incomes among producers through actions that recover and conserve agro-biodiversity, improve productive risk mitigation through diversification, improve market access and added value through post harvest processing community enterprises and labeling of agrobiodiversity friendly products
- Improvement of the diets of local consumers through the production of crops without chemical inputs

Indirect Beneficiaries:

Agro-biodiversity in productive systems reduces the incidence of pests and diseases. Therefore, the consumers of products from agro-biodiverse conditions will be able to access products free of pesticides.

The provincial or local governments will be able to scale-up this initiative among other communities given that they will have access to communal seed banks and agro-biodiverse farms. Other farmers will need new varieties of crops in the future as they adapt to new climactic conditions in terms of temperature, rainfall patterns, solar radiation, and diseases. Community seed banks will support small farmers as they adapt to such changes.

B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:

Risk	Rating	Mitigation
Insufficient political and technical infrastructure to support processes of agro-biodiverse production, management, transformation, and commercialization	M	Maintain the promotion of agro-biodiversity as a crosscutting activity in the framework of food security and sovereignty. Establish bridges between institutions with different responsibilities in the value chain. Exchange information. Participate in food sovereignty initiatives, taking full advantage of all available media
Lack of motivation and commitment among local actors to take actions to promote agro-biodiversity	L	Develop awareness activities and involve numerous allies and decision-makers in their implementation
Risks related to climate change	H	Several experiences (among others documented by FAO) show that agro-ecosystem resilience is closely related to their degree of diversity. Agro-ecosystems with high diversity and high vegetation cover integrating local and traditional varieties are less impacted by extreme weather events and they also recover faster after such events. This has among others been demonstrated in relation to the hurricane Mitch that hit Central America in 1998 and also the prolonged drought that hit the Uruguayan grasslands in 2008 where grassland with a diversity of native grass varieties was less affected and recovered significantly faster than grassland with high yielding introduced grass varieties. As such the resilience of agro-ecosystems is at the core of this proposed project aiming at increasing the agro-biodiversity managed by farmers based on indigenous knowledge and local varieties. The Project will promote the resilience of agro-ecosystems by supporting the implementation of agro-ecological principles building on diversity in farmers fields. This approach will allow for increased soil stability and fertility which supports: increased crop resistance to diseases and pests; increased capacity for regulating shortage or excess of water; establishment of microclimates that mitigate extreme temperatures by using living hedges, greater diversity and dynamics between different crops and varieties in crop rotation schemes that ensures continuous management and adaptation of biodiversity. The experienced Heifer technical team will, with technical backstopping from FAO, support the implementation of biodiversity agro-ecological plots in three micro centers and articulate the process of adaptation and seed multiplication in community banks in close collaboration with INIAP. INIAP has a training program and a validated technical assistance support system in the field that ensures the formation of groups of farmers managing the

		<p>multiplication of seeds and planting material in each community that is reinforced by a system of exchange "farmer to farmer" and seed exchange fairs.</p> <p>In summery the Project will seek to enhance agro-ecosystem resilience by:</p> <ul style="list-style-type: none"> - Establishing seed banks in three microcentros, this allows recovery of varieties that are being lost, adaptation, and identification of species and varieties with greater resilience characteristics. - Providing technical assistance to seed producing farmers to facilitate their incorporation of this diversity and promising species in their seed multiplication systems, their management of records to validate the processes of adaptation, and their participation in an inventory of agro-biodiversity to look for characteristics important for climate resilience. - Promoting the adoption of the locally multiplied seeds by farmers in their diversified production systems based on agro-ecological principles and enabling a production adapted to climate variability and ecosystem conditions favorable for the spread of this biodiversity.
--	--	---

B.5 IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, NGOS, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

The project includes an ample component regarding the participation of the civil society. On the one hand, one of the executors of the project is a non-governmental organization, Heifer-Ecuador, which offers its experiences, knowledge, and abilities it has developed through work alongside indigenous and small farmer organizations, as well as national and international networks, for nearly 18 years. On the other hand, the project will be carried out along with indigenous and small farmer organizations in order to maximize agro-biodiversity and strengthen their own abilities to participate and influence public policies in favor of agro-biodiversity conservation.

The active participation of the civil society guarantees the sustainability of the project given that their involvement allows executors of the project to respond to needs and expectations.

The participant organizations were selected according to the following criteria:

- Their ecological importance, given their level of biodiversity: Colta, Paltas, and Cotacachi are among the "hotspots" of global biodiversity.
- Their importance in terms of food sovereignty or varieties of traditional crops: For example, in Cotacachi 12 species of corn have been identified (of 29 in Ecuador); in Colta, a wide variety of roots and tubers have been identified, including potato, *mel loco*, *oca*, *mashua*, *jicama*, white carrot, *achira*, and *miso*; in Loja, there exists the greatest diversity of tomatoes, as well as a large diversity of peanuts and fruits important for nutrition (sse main crops cultivated in each area in the table below).
- Their cultural importance, given the presence of indigenous nations and groups with traditions of agro-biodiversity conservation.

Province	Cantón	Organizations	Crops
Loja	Saraguro and Paltas	<p><i>Federación Interprovincial de Indígenas Saraguro (FIIS)</i> is a Kichwa organization that includes 12 communities with about 1,000 families</p> <p><i>La Unión Cantonal de Organizaciones Campesinas de Paltas (UCOCP)</i> is a small farmer second grade organization that includes 12 grassroots organizations from Paltas and 180 families in total</p>	Fruits and oils
Chimborazo	Colta and Guamote	<p><i>Centro de Desarrollo Indígena (CEDEIN)</i> is an indigenous NGO based in Cajabamba, Chimborazo. It is legally recognized by MIES and has been working in Colta and Guamote since 1980. Its objectives are 1) investigation, technical assistance, training courses and the spread of information to improve the living conditions of indigenous and</p>	Roots and tubers

		farming families; 2) the promotion of conservation, soil conservation, reforestation, the use of organic fertilizers and the use of other natural products; 3) contribution to the recovery and preservation of cultural knowledge and values; and 4) support for strengthening indigenous and small farmer organizations. It is constituted by a team of 11 indigenous technicians of various backgrounds that have consolidated a methodology with Kichwa-speaking farmers. The team includes a specialist in gender relations. Their work is highly regarded by local community members.	
Imbabura	Cotacachi and San Pablo	<p><i>Unión de Organizaciones Campesinas Indígenas de Cotacachi (UNORCAC)</i> is an organization of 43 indigenous, <i>mestizo</i>, and afro-Ecuadorian communities of the western part of Imbabura. It has ample experience in the recovery and conservation of agro-biodiversity.</p> <p><i>Directorio de Agua de la Parroquia la Esperanza</i> is an organization of farmers from 9 areas of the parish <i>La Esperanza</i>, consisting of 858 families. It has an agroecology school for its members and includes seed producers associated with seed nurseries</p>	Cereals Leguminous

Management Committee.

A central management committee will be established for the project, including Hieffer-Ecuador, INIAP, FAO, and several other strategic partners, such as the Ministry of Environment (the Sub-secretary of Planning and Investment, Climate Change, and Natural Heritage), Ministry of Agriculture (MAGAP -the Vice-ministry of Rural Development and the Sub-secretary of Agricultural Promotion), the Sub-secretary of the Sierra, CONGOPE, CONAJUPARE, and universities. Each of the three microcenters will include a local management committee of technicians associated with the execution entities, delegates of the second grade organizations and seed producers. These local management committees will be in charge of operational planning and monitoring, and will dialogue with local governments, educative centers, and NGOs in order to incorporate local proposals and provide local awareness. They will also provide a space for the generation of agreements and consensus about the selection of alternative production techniques and the identification of educative centers for the implementation of programs in environmental education. They will maintain coordination with the central management committee. Members will be identified during the initial inventories of agro-biodiversity and they will be the ones to make decisions about the crop varieties to be conserved.

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

Fortunately, during recent years, parallel actions have been observed between governmental and numerous non-governmental organizations, as well as universities, indigenous communities and individual projects that have been geared towards the conservation of agro-biodiversity and the recovery of related values, knowledge and practices. For example, several gene banks are now active, such as INIAP's National Germplasm Bank, the collection of fruits in the National University of Loja and the Technological University of Ambato, and ESPOCH's bank of pasture and forage lands. In the same way, other valuable initiatives related to flora and fauna inventories, the recovery of knowledge about biodiversity, training on gender relations, etc., have been developed by the Ministry of the Environment, EcoCiencia, and the Ecuadorian Coordination of Agroecology, just to name a few entities.

Coordination with these initiatives will take place at two levels: 1) at the local level in three microcenters, other actors, programs, and projects will be invited to participate in local committees and share annual work plans in order to seek complementary forms of operating and securing sustainability; 2) at the national level, through the management committee. In order to achieve the integration of agro-biodiversity in national policies and regulations, this coordination will be fundamental.

Coordination will also be established with the Natural Resource Management project in the Chimborazo province executed by the Provincial Government of Chimborazo (CHPC), financed by GEF and a World Bank Loan and implemented by FAO. The Chimborazo GEF/CHPC/FAO project has specific focus at the conservation of the unique paramo ecosystem as part of an integrated community land management of micro watersheds. The proposed project will focus at enhanced agro-biodiversity conservation and use in farmers fields as a key element in creating more resilient agro-ecosystems and conserve plant genetic material important for future climate and agronomic challenges. As such the two projects differ in objectives, however the conservation of the water production service of the paramo ecosystem will have an important indirect impact on the conservation of agro-biodiversity considering that water is often the limiting factor in the Andean agro-ecosystems. The community organization and leadership of processes adopting conservation and NR management practices will also be mutual beneficial between the two projects in Chimborazo. The coordination of planning and implementation of project activities will be ensured by CHPC involved in the execution of both projects. Through FAO technical backstopping and supervision synergies and avoidance of duplication will also be insured. In particular the annual work plans and budgets will be coordinated and experiences with good practices documented in project progress reports and supervision mission and technical reports will also be exchanged.

An interesting collaboration and exchange could be developed at the bi-national level. FAO/GEF is supporting a similar project in Bolivia however with a slightly different focus and FAO could facilitate such a coordination and exchange.

During the project preparation, modalities of coordination will be articulated in greater detail in order to avoid duplications and maximize synergies for the systematic advance of the conservation of agro-biodiversity in the country.

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

FAO has developed a strong expertise in the sustainable use of agricultural biodiversity as a means to enhance food and nutrition security, improve soil conditions and enhance the resilience of agro-ecosystems to climate shocks, stress from diseases and pests and market volatility. The FAO Plant Production and Protection Division has extensive expertise and experience in sustainable intensification of agriculture production building on crop diversity and taking advantage of genetic characteristics of native varieties providing resistance to different stress factors. FAO's mandate on Plant Genetic Resources for Food and Agriculture (PGRFA) include the promotion and exchange of diversity of seeds and planting material of traditional and modern cultivars, crop wild relatives and other wild plant species, which are the biological basis of local and global food security. Its aim is to integrate the concepts of conservation and sustainable use into national policies and strategies that ensure a comprehensive response to the needs of farmers and underpin sustainable intensification of crop production. FAO

FAO has been chosen as the GEF Agency due to its active involvement with the central theme of the project in Ecuador. FAO has been active in the process of establishing proposals and studies leading to a national policy and strategy on biodiversity, with an emphasis on policies for agro-biodiversity. At the field level FAO has supported numerous projects strengthening farming systems of small holders through enhanced use and management of agro-biodiversity including: the MAGAP-FAO plan for the management of highland areas of the UNOCANC for the development of economic activities compatible with an integrated management of the Cutuchi and Toachi basins; support for the rehabilitation and enrichment of the forest structure necessary for agro-forest systems; the project "Recovering and Valuing Ancestral Knowledge" related to the use and management of agro-biodiversity; the project "Secure Healthy Nutrition for Indigenous Families of Cotopaxi and Chimborazo" also through the use and management of native agro-biodiversity; and the project "Agroecological Production, Commercialization, Defense of the Páramo and Water in Cotopaxi, Tungurahua, and Chimborazo" also including activities supporting a better incorporation of agro-biodiversity in farming systems.

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

The amount of co-financing from FAO will be USD 300 000 (USD 50 000 in kind and USD 600 000 in cash) from projects supporting increased incorporation of biodiversity to enhance resilience of poor farmers farming systems and a project supporting INIAP in the incorporation of quality seeds of local varieties in national seed systems.

C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

The day-to-day implementation of the project will be supported by a FAO Project Task Manager (PTM) based in the FAO office in Ecuador which is a technical person with solid experience in NRM related to resource poor farmers' farming systems including the use of plant genetic diversity for food and nutrition security and enhanced agro-ecosystem resilience. The PTM will be backed up by a Lead technical officer from the FAO headquarters Agriculture and Consumer Protection Department specialized in the conservation of plant genetic resources in diversified agro-ecosystems and the implementation of the CBD including the Nagoya protocol. The lead technical officer is the ultimate responsible for the close monitoring of project progress and technical quality of project outputs in collaboration with project partners and the FAO PTM and will through revision and comments and advice on technical documents, skype conferences, and supervision and technical backstopping missions provide technical guidance and support to the project in addition to the PTM day-to-day guidance. The FAO Representation in Ecuador in addition to the PTM also has a Programs and Projects Assistants, a Finance officers, a technical Program Officer, and the FAO Representative to Ecuador whom will all support the implementation of the project. Finally the project implementation will be followed and supported by an inter divisional technical Task Force and the FAO-GEF Coordination Unit in the Investment Centre Division in Headquarters.

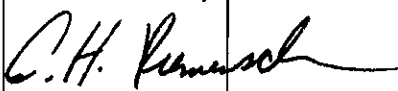
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY (IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the country or regional endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
Marcella Aguiñaga Vallejo	Minister of Environment	Ministry of Environment of Ecuador	November, 25, 2011

B. GEF AGENCY (IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Charles Riemenschneider Director, Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla 00153, Rome, Italy		20 February, 2012	Rikke Olivera, NR Programme Officer, Investment Centre Division, FAO, Rome	+39 06570 55701	Rikke.Olivera@fao.org
Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org org Tel: +3906 5705 5478					