



## PROJECT IDENTIFICATION FORM (PIF)

**PROJECT TYPE:** MEDIUM-SIZED PROJECT  
**TYPE OF TRUST FUND:** GEF TRUST FUND

### PART I: PROJECT INFORMATION

<b>Project Title:</b>	Enhancing livelihoods in rural communities of Armenia through mainstreaming and strengthening agricultural biodiversity conservation and utilization		
<b>Country(ies):</b>	Armenia	<b>GEF Project ID:</b>	5483
<b>GEF Agency(ies):</b>	UNEP	<b>GEF Agency Project ID:</b>	1145
<b>Other Executing Partner(s):</b>	The Ministry of Nature Protection of the Republic of Armenia, The Armenian National Agrarian University, Bioversity International, Rome, Italy	<b>Submission Date:</b> <b>Resubmission date</b>	03/07/2013 05/08/2013
<b>GEF Focal Area (s):</b>	Biodiversity	<b>Project Duration(Months)</b>	36
<b>Name of parent programme (if applicable):</b> For SFM/REDD+	NA	<b>Agency Fee (US\$):</b>	83,908

#### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Grant Financing (\$)	Indicative Co-financing (\$)
BD-2	GEF TF	883,242	3,740,000
<b>Total project costs</b>		<b>883,242</b>	<b>3,740,000</b>

#### B. INDICATIVE PROJECT FRAMEWORK

**Project Objective:** Enhanced conservation of the agricultural biodiversity in Armenia that supports adaptation to environmental and agricultural challenges, including markets, in the country and provides a sustainable basis for enhanced utilization to improve rural livelihoods

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
1. Improving national capacity and institutional framework to strengthen national cooperation and coordination for sustainable management of agricultural biodiversity.	STA	National coordination and cooperation for effective management of agricultural biodiversity is strengthened through mainstreaming integrated approaches to agricultural biodiversity conservation and use into Armenia's policy framework	(i) National agricultural biodiversity coordination mechanism at policy making level is established and national agricultural biodiversity strategy developed that takes account of unique diversity, ecosystem function and	GEF TF	194,644	894,000

			<p>opportunities for sustainable intensification .</p> <p>(ii) National institutional arrangements in place and capacity developed to mainstream and promote agricultural biodiversity in relevant land use sectors</p> <p>(iii) Agriculture and environment programmes adopt a participatory approach to include all relevant stakeholders for planning, implementation and management, and good practices are scaled-up to other locations.</p>			
2.Mainstreaming agricultural biodiversity practices and procedures at the District, local and community level.	TA	The area devoted to sustainably managed agricultural biodiversity is increased through the mainstreaming of diversified practices and products.	<p>(i) Farmers and local communities in the project pilot sites have enhanced skills and capacity to undertake agricultural biodiversity friendly farming and other relevant agricultural biodiversity friendly practices that support traditional crop varieties, crop wild relatives, medicinal species, pollinators and other beneficial insects.</p> <p>(ii) Participatory and sustainable management practices identified and developed to improve local diversity for marginal environments in the project site location.</p> <p>(iii) Guidelines and standards for sustainably managing</p>	GEF TF	266,328	950,000

			and harvesting economically wild plants and other relevant products are established and implemented in the project site locations1pilot location.  (iv) National extension <sup>1</sup> capacity strengthened in areas of farmer and community-based approaches for sustainable agricultural biodiversity conservation and utilization strategies.			
3. Improving market opportunities for agricultural biodiversity and other productsandinitiativesbased on agricultural biodiversity friendly practices.	TA	Increased availability of agricultural biodiversity friendly products in local and international markets which provide farmers with additional rewards and income.	(i) Development of marketing programmes for certified and non-certified (including organic and geographically identifiable agriculture products) agricultural biodiversity friendly products are in place and implemented through a supply chain approach.  (ii) Appropriate standards developed for sustainable harvesting of wild plant resources in pilot locations.  (iii) International and national marketing and promotional opportunities identified for key high value Armenian agricultural products and wild medicinal and food plant products.	GEF TF	203,828	738,000
4. Project monitoring and evaluation and knowledge	TA	4.1 Project implementation based	4.1.1 Project monitoring system	GEFTF	138,147	644,000

<sup>1</sup> There are a few extension systems operating in Armenia including the Agricultural Support Republican Center of the Ministry of Agriculture, the Agrogitaspur Department of the Armenian State Agrarian University and environmental information Aarhus Centers in 14 locations throughout the country.

management		on results based management and application of project lessons learned in future operations facilitated	operating providing systematic information on progress in meeting project outcome and output targets.  4.1.2 Midterm and final evaluation conducted. 4.1.3 Project-related "best-practices" and "lessons-learned" published.  4.1.4 Website to share the experience and information dissemination.			
			Sub-Total		<b>802,947</b>	<b>3,226,000</b>
Project management cost				GEF TF	80,295	514,000
<b>Total project costs</b>					<b>883,242</b>	<b>3,740,000</b>

#### 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	Ministry of Nature Protection	In-kind	700,000
National Government	Ministry of Nature Protection	Cash	313,490
	Ministry of Agriculture	In-kind	300,000
	Ministry of Agriculture	Cash	300,000
National Government	Ministry of Territorial Administration	Cash	276,510
National Government	Armenian National Agrarian University	In-kind	500,000
National Government	Armenian National Agrarian University	Cash	200,000
CSO	Environmental Public Alliance	In-kind	300,000
CSO	Aarhus Centers of Armenia	In-kind	300,000
Private Sector	Private Sector "Harazat Ojakh" LLC	Grant	50,000
Other Multilateral Agency	Bioversity International	In-kind	300,000
Other Multilateral Agency	Bioversity International	Grant	100,000
GEF Agency	UNEP	In-kind	100,000
<b>Total Co-financing</b>			<b>3,740,000</b>

#### D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal area	Country Name/Global	Grant amount (\$) (a)	Agency Fee (\$) (b)	Total (\$) (a + b)
UNEP	GEF TF	BD	Armenia	883,242	83,908	967,150
<b>Total Grant Resources</b>				<b>883,242</b>	<b>83,908</b>	<b>967,150</b>

#### E. PROJECT PREPARATION GRANT (PPG)

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)</u>
• (upto)\$50k for projects up to & including \$1 million	<b>30,000</b>	<b>2,850</b>

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF**

GEF Agency	Type of Trust Fund	Focal area	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee(b)	Total c = a + b
UNEP	GEF TF	BD	Armenia	30,000	2,850	32,850
<b>Total PPG Amount</b>				<b>30,000</b>	<b>2,850</b>	<b>32,850</b>

**PART II: PROJECT JUSTIFICATION**

**A. PROJECT OVERVIEW**

**A.1. Project Description**

**The Global environment problems, root causes and barriers**

Armenia is the most mountainous of the Transcaucasian republics, with an average elevation of 1,800 meters above sea level. Forests and woodlands cover less than a tenth of Armenia, arid land nearly a half, and one-seventh pasture. Only ten percent of the country lies below 1,000 m, and its highest point is the 4,090 m Mt Aragats. The country has an area of some 30,000 sq km, of which less than half is suitable for agriculture, and a population of 3.0 million. The variation in altitudinal range, overlying four distinct geological regions, has resulted in a great diversity of climates and adapted habitats relative to the size of the country. As a result, Armenia hosts exceptionally rich and globally significant biodiversity. The country is situated at a biodiversity crossroads, on the junction of Circumboreal, Irano-turanian and Southern Caucasic floristic regions.

The Armenian Plateau is considered to be one of the places where agriculture first developed, and still supports many wild relatives of crop plants and domestic livestock, and a range of agro-ecosystems. The rich agricultural biodiversity of the country includes wild relatives of crop plants, wild-growing edible plants, and a wide diversity of landraces and breeds. The diversity of wild relatives of crop plants found in Armenia is globally significant and has been used to develop new varieties through breeding and selection. A wide range of species are currently grown in Armenia – including six species of cereals, 366 fodder plants, 62 berry species, and 65 types of vegetable. Sites such as Erebuni have particular significance for agricultural biodiversity – this reserve was set up to protect the genetic diversity present in wild relatives of crops, and supports three species, and 100 sub-species of wheat. Agriculture in Armenia accounts for about 20 percent of GDP. At the national level agricultural biodiversity underpins many livelihoods and contributes substantially to national development, although this is rarely acknowledged or captured by cost benefit analysis or similar indicators. The rich diversity, especially of crop wild relatives, as a source of valuable genetic traits, represents an important element for future food security and adaptation to climate change.

A number of globally important agricultural biodiversity species are found in the agricultural landscapes of Armenia. According to a recent study conducted within the framework of the UNEP/GEF project on “*In-situ conservation of crop wild relatives through enhanced information management and field application*”, 2518 species of the flora of Armenia were evaluated as crop wild relatives, around 70% of all plant species native to the country. Due to this abundance of wild relatives of cultivated plants the country was defined by Vavilov as one of the centers of cultivated plant diversity. This diversity of wild progenitors of

cultivated plants represents a rich gene pool for the creation of new crop varieties resistant to diseases, and other adaptive characteristics. Armenia's richness of agricultural biodiversity is of national and global significance. In addition, over 200 wild plant resources are of direct economic and social value to communities through direct harvest, utilization and informal marketing:

- Over 200 species of **edible plants** are collected in Armenia, and are used fresh, cooked, pickled or dried. Commonly used plants include longleaf (*Falcaria*), asparagus (*Asparagus*), and chervil (*Chaerophyllum*).
- Around 120 species of **wild berries and nuts** are collected, including walnut (*Juglans*), hazelnut (*Corylus*), pear (*Pyrus*), apple (*Malus*), dogwood (*Cornus*), blackberry and raspberry (*Rubus*), and currant (*Ribes*).
- A great variety of plants are used for **animal fodder** (around 2,000 species), including clover (*Trifolium*), sainfoin (*Onobrychis*), and alfalfa (*Medicago sativa*).
- Around 10% of plants found in Armenia have some **medicinal use**, and species of hawthorn (*Crataegus*), buckthorn (*Rhamnus*), juniper (*Juniperus*), barberry (*Berberis*), rose (*Rosa*), and St John's wort (*Hypericum*) are collected for traditional remedies.
- Around 150 species of plants are known to produce **essential oils**, mainly species of thyme (*Thymus*), helichrysum (*Helichrysum*), and wormwood (*Artemisia*).
- Plants used in **producing dyes** (120 species) include spurge (*Euphorbia*), buckthorn (*Rhamnus*), elder (*Sambucus*), and madder (*Rubia*).
- A number of plants (c. 350 species) have an important role in **attracting bees**, including representatives of aster (*Acer*), sainfoin (*Onobrychis*), alfalfa (*Medicago*), lime (*Tilia*) and clover (*Trifolium*).
- A number of species are also used for their vitamin, tannin or resin contents.

Despite this diversity (most of which is poorly understood and researched) and the efforts of farmers to maintain it on farm, Armenia in recent times has witnessed serious problems of genetic erosion, and the loss of globally significant traits, as well as the undermining of traditional agricultural systems as a result of the spread of modern agriculture, globalization and other factors. Changes in climate are already impacting many poor smallholder farmers in the country. The main causes for the ongoing loss of genetic diversity in the region include. While the agricultural biodiversity remains important for the national economy and the livelihoods of all farmers and communities it remains constrained and threatened by a number of challenges.

The main barriers to the conservation and sustainable use of wild plant species and agrobiodiversity in Armenia are the following:

(i) *Poorly existing legislation and regulatory framework for the conservation and utilization of wild plant species used for food and medicine:* This situation means that wild plant species used for food and medicine in Armenia continue to over-exploited and face numerous threats.

(ii) *Inadequate partnerships between relevant institutions and organizations in the country:* Currently there is little collaboration and information exchange between organizations working in this area which means actions are piecemeal and many opportunities for synergies are lost.

(iii) *Lack of awareness among the general population including policy and decision-makers, farmers, producers and consumers of the value of wild plant species and agrobiodiversity:* No national policy exists to support sustainable use and conservation of wild plant species, although there is acknowledgement of the importance of such biodiversity in some policies

(iv) *Limited national research funding on wild plant species and genetic resources for food and medicine:* Little is known about the current distribution of wild plant species and genetic diversity, its status and threats it faces or the approaches and practices which farmers and communities use to maintain genetic diversity.

(v) *Lack of scientifically based proposals on conservation, reproduction and use of wild plant species for food and medicine:* All of the above factors combine to contribute to the lack of national action plans and strategies for effective conservation and use of wild plant species for food and medicine.

(vi) *Limited studies on local and foreign market demand for wild plant species for food and medicine:* To date only a select number of wild plant species have been subjected to such studies.

(vii) *Limited studies on opportunities for the development of agricultural, wild edible and medicinal products which can be marketed locally as well as for export:* There have been very few studies in this area

(viii) *Poor coordination between the various actors in the value- and market-chains for wild plant species for food and medicine:* There is little or no, collaboration and information exchange between organizations working in this area which means actions are piecemeal and many opportunities for synergies are lost.

Armenia's agricultural biodiversity (landraces, crop wild relatives and other wild plant species) have important 'option values' for the agriculture and biodiversity sectors. These values are not readily monetized and are not captured in the economic cost benefit analysis for development. As a consequence, they are threatened. Population growth, the commercialization of agriculture, changes in consumption patterns, conversion to modern, often unsustainable, high-input agriculture and the globalization of agricultural markets are all threatening wild plant species and agricultural biodiversity in Armenia, causing rapid loss of agricultural biodiversity and wild relatives from wild ecosystems.

The main factors contributing to loss of agricultural biodiversity that are directly or indirectly conditioned by anthropogenic influence are as follows:

- Reduction of habitats, natural populations and plant communities of crop wild relatives,
- Genetic erosion conditioned by introduction of new varieties as a result of the development of modern selection, as well as the illegal import of new crop varieties and hybrids,
- Disorganized gathering of medicinal, edible and decorative plants that leads to substantial reduction of natural supplies,
- Enlargement of the range of utilization of wild plant species for food and medicine and the scale of their trade and use as a result of higher market demand,
- Deterioration of natural grasslands as a result of continuous and intensive use.

Further to this, there is limited protection given to the vast majority of wild plant species in the country, especially their *in situ* management. While there has been some progress in the *in situ* conservation of selected wild relatives inside protected areas, e.g. Erebuni Reserve, this is limited and there has been little progress in relation to conservation of wild plant species outside protected areas. Natural populations of wild crop relatives and plant communities are decreasing because of the above anthropogenic influences, environmental deterioration and climatic change. Around 180 tons of wild edible and medicinal plants are harvested and sold in Yerevan markets annually. Further, there is little understanding or appreciation of sustainable approaches for their harvest and management. It has been estimated that approximately half of the Armenian flora needs to be protected, however, only 387 species are included in the Armenian Red Book. About 70% of them (268 species) are crop wild relatives. The importance of agricultural landscapes promoting management and practices friendly to agricultural biodiversity and acting as biodiversity refuges and corridors between areas of high biodiversity are important in this regard and will support other global efforts towards overall biodiversity conservation.

Armenia does not recognise the need to better support and mainstream conservation and use of wild plant species for food and medicine as a solution to protecting important landscapes and agroecosystems but also as a way to improve livelihoods by creating benefits and markets for key high value agrobiodiversity

products. Progress in this area has been limited due to the numerous constraints and threats listed above. To achieve enhanced mainstreaming of biodiversity and conservation of wild plant species for food and medicine, there is an urgent need to initiate activities that will address the following barriers:

During the implementation of this project the following main barriers that limit and minimise the conservation and sustainable use of wild plant species and agrobiodiversity in Armenia will be overcome:

**Barrier 1: Inadequate national coordination and cooperation for integrated policy and regulatory framework development and mainstreaming effective management of wild plant species and agricultural biodiversity in Armenia:** Policy awareness and recommendations are urgently needed to better support efforts for the conservation and sustainable use of wild plant species. Policies need to be cross-sectoral in nature, demonstrating the broad role and value of wild plant species diversity, and ensuring that initiatives in one sector are supportive and complementary to those in other sectors. At the same time national policy must be in place to better engage with key international policy on *in situ*/on farm conservation including the FAO-hosted International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA); Commission on Genetic Resources for Food and Agriculture (CGRFA) and the Convention on Biological Diversity (CBD).

**Barrier 2: Limited area devoted to sustainably managed wild plant species and agricultural biodiversity:** Efforts will focus on ways to strengthen community biodiversity management and community co-management of wild plant species for food and medicine and the areas where they are harvested from. This will require capacity building of national extension services, farmers and local communities to undertake agricultural biodiversity friendly farming and apply other relevant agricultural biodiversity friendly practices that support such wild plant species, crop wild relatives and medicinal species. It will also necessitate that the development of guidelines and standards for sustainably managing and harvesting of economically wild plants and other relevant products are established and implemented in-pilot locations.

**Barrier 3: Limited market share of wild plant species and agricultural biodiversity friendly products in local and international markets for ensuring with additional rewards and income to farmers and communities:** Overcoming this barrier will require a focus on the development of marketing programmes for certified and non-certified (including organic and geographically identifiable agriculture products) selected and priority wild plant species and agricultural biodiversity friendly products that are in place and implemented through a supply chain approach. This will also entail the identification of relevant products that require a process of certification and that relevant support is provided to farmers and communities, and other value chain actors, related to certification of products. It will require that appropriate standards are developed for sustainable harvesting of wild plant resources in the selected pilot site which can be taken to scale. International, regional and national marketing and promotional opportunities will also have to be identified for key high value Armenian agricultural products and wild medicinal and food plant products.

### **The baseline scenario and associated projects**

There have been a few limited initiatives which have addressed some elements of the conservation and sustainable use of wild plant species for food and medicine in Armenia. A range of policies and strategies at the national level also have some relevance. However, there is no dedicated programme, policy or regulatory support for the current proposed activities in Armenia. What has taken place has been on a piecemeal and ad hoc basis. As a result, there is little understanding of the value, need or role of conservation and sustainable use of wild plant species for food and medicine, little funding for research, limited enabling policy and regulator environments, and poor technical capacity at either regional or national level and weak linkages among value chain actors. As a result, linkages, platforms for information sharing or promoting harmonization across approaches and actions are lacking.



Six main strategic documents have been developed in Armenia which are directly connected with biodiversity and agrobiodiversity conservation and which relate to the proposed project intervention. These are: **Second National Environmental Action Programme of the Republic of Armenia**, which includes a number of actions concerning biodiversity conservation (inventory of biodiversity valuable areas, establishment of biodiversity monitoring system and database, assessment of the resources of the most significant flora and fauna species, genetic resources management etc.); **Biodiversity Strategy and Action Plan of Armenia**, the main goal of the strategy is *to ensure conservation, sustainable use and regeneration of the landscapes and biological diversity of the Republic for sustainable human development*; **National Strategy and Action Plan of the Development of Specially Protected Nature Areas of Armenia (PNAs)**, the main objectives of the in-situ conservation of biodiversity have been enlarged and clarified here. The action plan covers 5 chapters: improvement of legal field / legislation, improvement of management system, enlargement of PNAs network, improvement of financial- technical mechanisms, and improvement of staffing; **National Action Programme to Combat Desertification in Armenia**, which will address pressures from habitat loss, land use change and degradation, and unsteady water use, reduced. Minimise the rate of loss and degradation of natural habitats. Promote, conserve and restore the main forest ecosystems. Promote, conserve and restore the main wetland ecosystems. Restore the landscapes and their biodiversity degraded due to industrial activity; **Community Agroresources Management and Competitive Project (2010-2020)**, the action plan includes 4 components: community pasture and livestock management system; agricultural advisory and community animal health services; competitive grants program; and, project management and monitoring and evaluation. The project is envisaged to be implemented in 6 Marzes of the Republic (Aragatsotn, Shirak, Lori, Tavush, Gegharquniq, Syuniq); and finally, **Development of Specially Protected Nature Areas of Armenia** (UNDP-GEF medium-sized project), the objective of the project is to conserve globally important biodiversity of Armenia. The project is carried out in Vayots Dzor and Syunik regions. It is envisaged to establish Gnishik protected area in the scopes of the project, and Khustup sanctuary in Syuniqmarz. In addition to these initiatives there have been a number of short-term agricultural projects of local importance, which aim to increase the productivity of agricultural cultured plants and contribute to the production increase of livestock products, are implemented in Vayotsdzormarz.

According to the Social Economic Development Project of the Republic of Armenia for next several years the Government will commit to natural resource management in the regions targeted by the project over US \$ 2 million. This includes investment of US\$ 323,655 directly targeting agriculture sector, distributes as follows:

- US\$ 209, 902 for Ararat valley (located in the territory of Ararat and Armavir Marzes State Administrative Units)
- US \$ 63,378 for Sevan Basin (located in Gegharkunik Marz State Administrative Unit)
- US \$ 50,372 for Zangezur region (located in Syunik Marz State Administrative Unit)

Although the baseline scenario for on effective and efficient conservation and sustainable use of wild plant species for food and medicine is very limited, these ongoing initiatives in biodiversity conservation listed above provide excellent entry points and work to build on where project resources can be better leveraged to bring about significant transformation in all three proposed areas.

### **The proposed alternative scenario**

The working hypothesis of this project is that wild plant species and associated agricultural biodiversity will only be maintained in the Republic of Armenia if agricultural biodiversity conservation is mainstreamed into supporting policies and an enabling system is created for agro-ecosystems that deliver ecosystem services, markets and support food security, sustainable livelihoods and sustainable economic development. There is an urgent need to enhance and strengthen national coordination so that sustainable conservation and management of wild plant species for food and medicine and other agricultural biodiversity is mainstreamed into Armenia's policy framework. Institutional policies and strategies must be modified and capacities and market incentives that encourage and support such agricultural

biodiversity, and the markets and ecosystem services it provides, promoted. One way to facilitate this is the establishment of a national biodiversity coordination mechanism at policy making level with an emphasis on agricultural biodiversity, conservation and sustainable use and the parallel development of a national agricultural biodiversity strategy that promotes and mainstreams biodiversity principles into government policies including environment and agriculture policies, conservation and land use policies, commercial farming, trade and industry policies and practices. The proposed project will strengthen the resilience of rural people by helping them increase and maintain agricultural production and provide the basis for value adding through relevant marketing and agri- and eco-tourism approaches. In order to achieve this, there is an urgent need to change production and business practices so that they sustain agricultural biodiversity, including crop wild relatives and other wild species, in agricultural and wild ecosystems.

The development of the necessary policy framework and enabling system will require a novel integration of agricultural science, ecosystem management and conservation practice. As described above, an approach will be developed that links different bodies of knowledge and supports an improved interface of biological science expertise in Armenia with farmers and policy makers. Conservation decisions that support the maintenance of unique biodiversity will need to be combined with maintaining ecosystem function and adoption of practices (such as conservation or no-till agriculture, organic farming etc.) that can be used to secure sustainable intensification, improved productivity and better income generation opportunities. Given the nature of its agricultural production, the existence of globally significant agricultural biodiversity, and its relative capacity in a number of key research areas, the approach is expected to provide Armenia with practical diversity rich options to support its overall development.

To achieve the objective of this project, to ensure that agricultural biodiversity is optimally conserved and supports adaptation to environmental and agricultural challenges in Armenia and provides a sustainable basis for enhanced utilization to improve rural livelihoods, this project using a participatory approach, will attempt to address these challenges, barriers and threats through strategic interventions at the national and local levels by selecting one location from the following 3 locations and through the components elaborated below. The final selected location will be defined during the PPG phase:

**1. Ararat valley** - Is a center of globally important wild relatives of cereals, feed and some vegetable crops. Three of two reserves “Erebuni” and “Khosrov Forest” are located in this region. This region is an important area of agricultural development of agriculture, At the same time, it is the most urbanized region of the country with about 70 percent of Armenian population living here. As a consequence there are major threats from human activities on the environment and biodiversity. The area is located within Ararat and Armavirmarzes (administrative units), the Ararat valley represents around 13% of Armenia’s arable lands and has an area of 32000 ha (10.8% of country’s territory). It provides almost half of total agricultural production for the country and represents a rich mixed farming system. This area is also home to the Mera Eco 99 demonstration farm and a number of protected areas containing globally important agricultural biodiversity.

**2. Sevan Basin** – located in Gerarquniqmarz the area is divided into two zones. The first involves lands with an altitude up to 2000m above sea level, while the second involves lands above 2000m. The area is an important fresh water resource which creates unique micro-climates for the Sevan region. It is a mountain-locked region which also creates exceptional conditions for unique plant populations. Most of the area is conserved in Sevan National Park. It borders with “Dilijan” National Park where many globally important wild relatives of fruit-bearing trees, feed and vegetable species are grown. Region plays great role in growing root-crop species such as potato and beet. It is one of the exceptional regions for eco-tourism but there are possible unfavorable effects of tourism on the basin. Generally the area is cultivated with potato, forages and cereals.

**3. Zangezur region** –located within SiunikMarz. The Shikahogh Reserve is located within SiunikMarz, its purpose to protect oak, hornbeam and oak-hornbeam forests, oriental beech, yew, oriental plane and

animals. According to approximate data it comprises 1100 species of vascular plants. About 70 species growing in the reserve are registered in the Red Data Book of Armenia. Zangezur region is unique for its dry-tropical wild plant-species and its cultivated national species. Goris and Sisian regions are located within the borders of Zangezur region, they represent some of the highest areas of Armenia. Goris forests are famous for their rich diversity of wild relatives of cultivated fruit-bearing trees. The area is famous for local varieties of legumes, especially grain and fodder plants. The mining industry is developing in the region, which can have negative impact on the environment. The region has a rich farming system comprising high diversity of fruits including grape, walnuts, pears, fig, plum, apple, and beans as vegetables. In the first subzone (up to 900m) crop cultivation is under irrigation.

The **project objective** is to enhance conservation of the agricultural biodiversity in Armenia that supports adaptation to environmental and agricultural challenges in the country and provides a sustainable basis for enhanced utilization to improve rural livelihoods. The project will achieve this through the following three components:

**Component 1: Improving the national capacity and institutional framework to strengthen national cooperation and coordination for sustainable management of agricultural biodiversity.**

The first component involves the development of relevant capacity and institutional frameworks to support farmers and communities and ensure that national agricultural production and conservation planning fully embeds and reflects the importance of maintenance and use of wild plant species for food and medicine and associated agricultural biodiversity and which promote appropriate market-based incentives for the ecosystem services nurtures. To facilitate this component the proposed project will undertake to establish a national agricultural biodiversity coordination mechanism that will involve policy and senior level research and extension staff for key stakeholder agencies including the Ministry of Nature Protection, the Ministry of Agriculture, Armenian State Agrarian and Yerevan State universities as well as farmer outreach agencies mentioned in footnote 3. This forum will bring together the relevant actors in the environment and agriculture sectors. It also seeks to ensure that adequate support is provided to *in situ* conservation of crop wild relatives and other wild plant resources and that connectivity between natural and agricultural landscapes is enhanced. Armenia has not developed any coherent strategies on agricultural biodiversity and this will be an additional output of Component 1. The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) contain additional specific policy recommendations, which Armenia is a signatory to. The project will identify policy elements of direct relevance to Armenia and carry out a range of activities designed to facilitate their implementation, drawing on the experience of Bioversity International's Platform for Agrobiodiversity Research. Other important actions will include: the promotion of agricultural support policies that are agricultural biodiversity friendly and recognize the ecosystem services it provides, and which are relevant to farmers needs at local, regional and national level; and the training of agricultural outreach and extension staff so that they can support the process and the development of active Research and Development programmes in Armenian institutions to provide new knowledge.

**Component 2: Mainstreaming agricultural biodiversity practices and procedures at the district, local and community level.**

This component will involve support for those agricultural biodiversity rich practices that are already part of the livelihood strategies of target communities (through support both for the management practices themselves and for the social institutions which are essential to their operation – such as informal seed systems). The component will also involve the development, testing and integration of a range of relevant adaptive management practices that fall under the umbrella of community biodiversity management (CBM). The emphasis will be on how these different practices can best be brought together, on identifying any associated tradeoffs and, in particular, on which practices are most sensitive to, or useful under, changing climate and other biotic and abiotic threats. The component will be concerned both with provisioning of ecosystem services through the adoption of farming practices that support the joint practice of biodiversity conservation with agricultural products, enhance wildlife habitats on farm, which integrate perennial plants and generally modify land management practices which improve habitat quality

in and around agricultural land. Mainstreaming of agricultural biodiversity practices will also strengthen the provisioning of better water quality, availability of wild food sources in and around farms and non-lethal pest control practices which minimize threats from hazardous chemicals. Practices which strengthen adaptability, stability and resilience will be particularly important, having been identified as significantly at risk in IPCC reports. The work will involve participatory and multidisciplinary approaches focused on farmers and communities and will pay particular attention to strengthening social institutions involved in diversity maintenance (e.g. informal seed systems) and current unsustainable harvesting of wild resources. The results will be the adoption by farmers of practices which improve stability, resilience and diversity in production systems where these are identified as improving livelihood options and adaptability. A variety of participatory learning and action approaches have already been developed and tested to enhance learning with farmers and communities in different international projects such as Farmer Field Schools. These will be considered in Armenia by the active national and regional outreach programmes and will provide farmers and communities with new knowledge as well as helping to sustain and share traditional skills and wisdom. Such approaches will also be encouraged to work with communities active in the harvest of wild plant resources, especially those at risk from overharvesting. In such contexts options and guidelines will be sought for the sustainable management and harvesting of such resources.

**Component 3.Improving market opportunities for agricultural biodiversity and other products and initiatives based on agricultural biodiversity friendly practices:**This component seeks to identify and promote markets (supported by relevant policy and capacity building) which will increase trading and marketing in agricultural biodiversity friendly products and which will reinforce farmers in adopting sustainable production practices.. This will apply to agricultural production systems and the harvesting of wild plant resources in wild ecosystems. Activities will include; conducting research studies to assess the present status of wild plant species and associated agricultural biodiversity utilization; establishing networks and collaborations between public and private sectors involved in aspects of agricultural biodiversity utilization and marketing; conducting training in market assessment and implementation of market assessment studies; development of standards and marketing programmes for certified and non-certified agricultural biodiversity products (including geographically identifiable origin); national and international<sup>2</sup> awareness and marketing campaigns and facilitating access to existing credit schemes by small farmers. Specific outcomes will include increased availability of agricultural biodiversity friendly products. There will also be a focus on the development of agri- and eco-tourism schemes which build on aspects of agricultural biodiversity in both natural and agricultural landscapes. Tourism represents one of the few sectors in which biodiversity-rich areas, including mountains, have a comparative advantage, and there is growing interest in initiatives in this area. This component will build on the experience of Bioversity International in on-farm management of agricultural biodiversity and the *in situ* conservation of crop wild relatives and other wild plant species inside and outside protected areas.

#### **The incremental cost reasoning and expected baseline contributions**

Armenia has a strong commitment to conservation and sustainable utilization of biodiversity and in the past some key organizations within the environmental and agricultural communities have occasionally come together and collaborated on initiatives such as the UNEP GEF supported project on crop wild relatives. However, within both agricultural and environmental sectors the approaches remain poorly linked and coordinated and the different organizations, responsible for different aspects of policy, production, extension and marketing, often work in isolation of each other. There are also weak linkages to relevant private and NGO sector actors. This proposed project will provide the required stimulus and operational framework to bring these different actors together in ways that are relevant to the small farmers and local communities involved.

In addition to the direct benefits to Armenian agricultural biodiversity maintenance and mainstreaming and conservation of unique biodiversity, the project will provide global benefits through the links with the

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<sup>2</sup> The project will work with the Ministry of Agriculture, Bioresources Management Agency of the Ministry of Nature Protection, the State Agrarian University, farmer organizations and private sector to facilitate this activity. Bioversity International also has considerably experience in the international marketing and campaigning to promote agricultural biodiversity.

Platform for Agrobiodiversity Research (PAR) which will make tools, experiences and methodologies available as part of its ongoing commitment to supporting maintenance and use of agricultural biodiversity. In addition, the Platform will provide substantial benefits through applying its experiences and networks in facilitating action between NGOs and small farmer organizations and local community groups through lessons learned and good practices.

Without implementation of this project there will continue to be a lack of integration, coordination and collaboration among the relevant stakeholders in Armenia which would result in the continuation of many of the barriers and policies that are not conducive to the successful mainstreaming of agricultural biodiversity. This is the important value-added nature of a GEF intervention which will contribute substantially to a reduction of important barriers and constraints and will have important positive knock-on effects in securing the successful conservation of previously highlighted globally significant biodiversity, securing associated global environmental benefits and contributing to well-being and livelihoods in Armenia. Without this project, an opportunity to improve the conservation and sustainable use of valuable agricultural biodiversity to address development and environmental goals in Armenia will be lost.

The considerable global value of Armenia's agricultural biodiversity resources suggests that the proposed project investment of \$3.74 million of which \$883,242 will be provided by the GEF is not an excessive investment and that the project rationale would be cost-effective. By facilitating coordination and multi-stakeholder involvement, and building an enabling context as outlined in Section A, the participatory approach of the proposed intervention would remove the identified barriers and constraints to the efficient mainstreaming of agricultural biodiversity into Armenian agricultural production systems and landscapes. Mainstreaming of conservation of agricultural biodiversity into the agriculture and environment sectors through the proposed community-based approaches, outlined in component 2, and identified technologies would enable farmers and communities to benefit from biodiversity rich solutions to income generation and other benefits. The coordinated approach would guarantee cost-effectiveness for the conservation and management of relevant agricultural biodiversity outside of agricultural landscapes also by bringing to bear the skills and resources of broader range of relevant actors. Overall, this provides a much more cost-effective approach than the conventional top-down and centralized project planning models of the past which have invariably not been responsive to, nor addressed the needs of, those they intended to serve and the communities in which they were located. The value of agricultural biodiversity although poorly quantified can be illustrated and in Armenia the project will derive its cost effectiveness not only from future benefits of particular genes or varieties conserved but also from the value of the medicinal and other economically important wild species maintained, utilised and marketed, as well as the associated ecosystem services which will be maintained. The mainstreaming of agricultural biodiversity into production practices will result in benefits in terms of the health, well being and incomes of farmers and communities and will reduce the costs of the country's adaptation to climate change.

### **Global environmental benefits**

As highlighted above, the many environmental services and benefits that will be derived from this project will go beyond the country level and will contribute to a number of global environmental benefits. By promoting greater coordination, collaboration and enhancing capacity, the project will promote an exemplary enabling policy environment which will reduce many of the barriers to the successful mainstreaming of agricultural biodiversity. It will do this by developing principles for effective capacity building and institutional frameworks for sustainable management of agricultural biodiversity. The project will produce a model for *in situ* conservation of globally important biodiversity, which connects wild and natural landscapes, by embedding wild plant species for food and medicine in both agricultural and conservation planning. The protection of Armenia's rich portfolio of globally important wild relatives, and associated evolutionary processes represents a global good of vital importance to the future of the planet and its inhabitants. Such unique germplasm harbours important genetic traits that can help the world cope with climate change and contribute to future food security. In this respect it will identify and test 'best practices' which strengthen adaptability, stability and resilience of the natural resources. Increased protection, conservation and use of agricultural biodiversity will contribute to enhanced ecosystem services such as

improved soil fertility, enhanced pollination and biocontrol services. To this end, the project will ensure the development, testing and integration of a range of adaptive community based management practices for ecosystem benefits— including trade-offs— which can be replicated elsewhere. By generating local income and economic development that rewards the provision of ecosystem services in some of the most impoverished areas of Armenia the project will contribute to reducing poverty and enhancing well-being and thus reduce future pressure on vulnerable ecosystems. The lessons learned about creating demand for agrobiodiversity-friendly products in order to bolster biodiversity conservation through market mechanisms will be useful in other contexts. The project will provide evidence about effective market mechanisms and incentives for agricultural biodiversity conservation through use, a model which can be up-scaled to global levels. In addition to the direct benefits to Armenian agricultural biodiversity maintenance and mainstreaming and conservation of unique biodiversity, the project will provide global benefits through the links with the Platform for Agrobiodiversity Research which will make tools, experiences and methodologies, developed in the project, available globally as part of its ongoing commitment to supporting maintenance and use of agricultural biodiversity.

### **Innovativeness, sustainability and potential for scaling up**

The proposed project is highly innovative for the country in that for the first time it will undertake to support and develop the effective and sustainable management of wild plant species for food and medicine using community-based conservation models for a Armenia, a country with important and threatened globally important plant diversity, but which has, to date, been neglected in this key area. This will be backed up by strengthened policy and regulatory frameworks and market opportunities to enhance livelihoods and well-being. Further, it will bring to bear an extensive knowledge base and cadre of experts with experience of supporting such models elsewhere. The opportunity for the proposed project to build on this, and further develop innovative models for other parts of the country, and possibly elsewhere in the regional context, is good. The proposed project will help identify plant diversity with globally significant adaptation traits and properties. It will develop options for farmers and communities, and other value-chain actors to add value to this plant diversity as well as gain other benefits from its conservation and use. It will establish a wide network of farmers, researchers and extension workers, value chain actors, skilled in community biodiversity management that will greatly empower local communities. Such models and methods will demonstrate innovative approaches to dealing with the problem of over-exploitation of wild plant species for food and medicine.

Sustainability of project outputs will be ensured through embedding community biodiversity management approaches in the country through mainstreaming into relevant strategies and action plans including capacity building plans which will see for the first time in the country the benefits that community biodiversity management and community co-management can provide in terms of sustainable harvesting and exploitation of wild plant diversity. Incentives provided through marketing and ABS will also contribute to this. The proposed project will endeavour to build on the outputs of other relevant projects currently supporting the development of market enterprises in the country and region around wild plant diversity. Sustainability will be further supported through mainstreaming and cross-sectoral, multi-stakeholder recognition of the role that wild plant species for food and medicine can play in addressing many of the development challenges Armenia faces. The project goal and objectives are fully consistent with Armenia's NBSAP and this contributes to financial stability beyond the project. The proposed project will put in place the policies and regulatory frameworks and linkages that have been lacking in the area of wild plant species conservation and sustainable use to date, and in doing so will better connect farmers, communities and value chain actors to decision-makers in the country.

Scaling-up will be achieved through the establishment of a network of communities trained and empowered in sustainable management and harvesting processes. Community-to-community networks and training will be established which will strengthen the capacity of farmers and communities to better conserve and use wild plant species for food and agriculture. It will also be achieved in country through the inter-agency collaboration that will be established, and through collaboration and cooperation with other related projects and programmes. This project will provide the data and the methodology to enable

Armenia partners to incorporate the use of wild plant species for food and medicine into their ongoing work programmes. Linkages with technical and educational institutions will also support innovation, sustainability and scaling-up in these areas.

### **A.2. Stakeholders**

The major stakeholders of the project include as follows: **Ministry of Nature Protection, Ministry of Agriculture and Ministry of Education** (Representatives of the different Ministries will participate in project management and be invited to take part in Project consultations, seminars, workshops etc. They will also be provided with relevant training on mainstreaming plant diversity and agricultural biodiversity based on wild plant species for food and medicine); **National Extension and outreach services of Ministries of Agriculture and Nature Protection** (Will participate in project implementation working alongside communities. Will support provision of appropriate additional biodiversity and will support marketing initiatives); **Scientific community (including academic and national institutions) – Institute of Botany, Armenian National Agrarian University and Yerevan State University** (Will support the Project in providing scientific and technical inputs and collaboration in research and in the development of methods and approaches. Will be invited to participate in Project consultations, seminars, conferences and workshops and to assist with development and delivery of training. Will support provision of additional diversity to project sites where needed. Collaborate in the development of outreach materials and the dissemination and up-scaling of Project outputs through peer-reviewed scientific publications. Will contribute to identification of major knowledge gaps and through the development of research proposals); **Non-governmental organizations and civil society** (Will help facilitate consultations and collaborations with communities at pilot sites and assist in mobilizing participatory action research. Will be invited to take part in Project consultations and meetings and will be used extensively in the dissemination of outreach materials at the grassroots level. Will particularly support the maintenance and mobilization of relevant traditional knowledge); **Local communities - Community-based organizations, Women's Groups, Farmer's Organizations and Groups and Youth Groups** (Will be involved in participatory appraisals and community based activities to map biodiversity and sustainable practices and to mobilize relevant biodiversity-based interventions (practices and materials). They will have access to training and capacity building and other benefits arising through the Project. Will assist in the documentation of information and the maintenance and use of traditional knowledge and will also be involved in activities pertaining to conservation and sustainable management of local biodiversity)

An informal coordination unit involving Institute of Genetics and Plant Experimental Biology, Ministry of Environment and Nature Protection, State Committee of Nature Protection, Republican Association of Farmers and Bioversity International has already been established for this project to oversee project preparation and ensure full participation of stakeholders during project preparation. During the Project preparation, all the stakeholders listed above will be consulted on a bilateral basis in a regular manner. In addition, at least three workshops will be held with all stakeholders – to consult, to generate and analyze the information and to validate the approach for the proposed project intervention. In addition, consultation with representatives of local communities in the agro-ecoregions targeted by the project will be undertaken.

### **A.3. Risks**

The potential risks to project implementation and mitigation measures that will be taken are as follows:

<b>Risk</b>	<b>Level</b>	<b>Mitigation Strategy</b>
Climate change or other environmental events remove diversity and lead to expansion of desert and arid zones in Armenia	M	Necessary mitigation measures and good practices of mitigation will be identified and included in the National Agricultural Biodiversity Strategy and national policies to be developed within framework of the project. Emphasis will be placed on the active participation of local communities in the identification and implementation of adaptation measures. This will help the proposed project design measures aimed at increasing the resilience and adaptability of important agroecosystems in Armenia.
The political and security environment deteriorates	L	Armenia has a stable government system in place.
There is failure of the private sector and NGOs to engage	M	Past experience has shown that it is difficult to engage the private sector in production of crops without, or little, monetary value. This might be aggravated by inadequately developed markets for potential agricultural biodiversity products. However, there is growing demand for products that can demonstrate a sustainable production base.
Communities and farmers do not wish to participate	L	Farmers and local communities will be involved in a participatory manner at all stages of project development so that their problems and concerns are realistically identified and measures are embedded to address these. Project implementation experiences from over 20 countries have shown this risk is overcome by adoption of appropriate participatory approaches during project planning and implementation phases
Commitment to <i>in situ</i> and on farm conservation of agricultural biodiversity may not be desirable to all farmers and communities.	M	To mitigate this, the project will explore the use of incentive measures to make this more attractive to farmers.
The national agriculture and environment sectors do not cooperate and do not demonstrate effective coordination	L	National stakeholders have expressed a strong desire for this project and project development will rely on significant representative partnerships comprised of stakeholders at all levels.

**A.4. Coordination.** Outline the coordination with other relevant GEF financed and other initiatives:

The project will take forward some of the major outputs and results from the UNEP/GEF project ‘*In-situ Conservation of Crop Wild Relatives through Enhanced Information Management and Field Application*’ undertaken in part in Armenia in collaboration with 4 other countries. This project, due to be completed during 2009, has demonstrated the critical importance of agro-ecosystems and natural protected areas in conserving crop wild relatives. The expertise mobilized in this project will provide essential inputs to the work proposed here, especially the task of trying to provide better connectivity between agricultural and natural landscapes. The Ministry of Nature Protection have recently spearheaded national efforts to conserve *in situ* important crop wild relatives and other agricultural biodiversity, they are well placed to promote greater connectivity between natural and agricultural landscapes in Armenia. This would also lead to greater cooperation with other GEF supported initiatives, such as UNDP GEF projects *Developing the Protected Area System* and *Catalyzing Financial Sustainability of Armenia’s Protected Areas System* to ensure greater mainstreaming of agricultural biodiversity into management and monitoring plans and



related information and education programmes. Within the framework of other GEF supported projects implemented through the Ministry of Nature Protection, as national executing agency for UNDP/GEF, the proposed project will seek close cooperation with the “Adaptation to Climate Change Impacts in Mountain Forest Ecosystems of Armenia” project especially in the area of reducing vulnerability and increasing adaptive capacity to cope with the adverse impact of climate change and with the UNDP/GEF project “Developing Institutional and Legal Capacity to Optimize Information and Monitoring System for Global Environmental Management in Armenia”. The project will also utilize and monitor relevant data from the Climate Change Information Center that has been established under UNDP/GEF project on “Armenia- Country Study on Climate Change”, data from the UNDP/GEF project on “National Biodiversity Strategy, Action Plan and First National Report to CBD” as well GEF financed National Reports to the Convention of Biological Diversity up to the fourth report. The proposed project will also complement and build on relevant aspects of the work carried out under the “Natural Resource Management and Poverty Reduction” project. Through the aforementioned national executing agency of the project this project will seek to use all available experience, data and analysis on planning, rehabilitation, protection and sustainable management of state forests in the project area will be used while developing full project document for this PIF.

Similarly it is intended that links are developed with other similar initiatives on specific parts of the agro-ecosystem such as fruit bearing crops and their wild relative’s conservation and utilization governmental research project at the Faculty of Biology of Yerevan State University. The proposed project will also work closely with relevant initiatives and activities underway at the Armenian State Agrarian University and coordinate work with the German-Armenian technical cooperation programme "*Sustainable management of biodiversity in the Southern Caucasus*" implemented by the Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ).

Models such as Mera Eco 99 sustainable farm in the Ararat Valley, demonstrate that agricultural productivity can be sustainably enhanced by integrating greater agricultural biodiversity into farming systems and through greater consolidation and cooperation of small farms for more effective management of land and resources. Such approaches can be scaled up to other locations. The proposed project would also align its activities with relevant existing extension and information disseminating services in Armenia including the Agricultural Republican Center, the Agrogitaspur Department and Aarhus Centers.

In order to bring the necessary experience to bear for effective project implementation, the proposed project will draw on the experience of the Platform for Agrobiodiversity Research which brings together those working on all aspects of agricultural biodiversity, sharing information and experiences and facilitating partnerships to make available tools, practices and experiences on how to optimally maintain and use agricultural biodiversity ([www.agrobiodiversityplatform.org](http://www.agrobiodiversityplatform.org)).

## **B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

**B.1.National strategies and plans or reports and assessments under relevant conventions**, if applicable, i.e. NAPAs, NAPs, NBSAPs, National Communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc:

The Republic of Armenia signed the Convention on Biological Diversity in 1992, and the Convention was ratified in May 1993. The National Biodiversity Strategy and Action Plan (NBSAP) was developed with the GEF support in 1999 where *in situ* management improvement got a particular attention. The NBSAP has been developed using information collated in a comprehensive review of the existing situation for biodiversity and its conservation, and social and economic factors affecting the biodiversity in the country. All issues relating to biodiversity, including research, education, conservation, management, staff and legislation have been assessed and analyzed, and an integrated plan for the improved future management of biodiversity in the country has been developed.

In its NBSAP Armenia recognizes the following major needs and objectives in its genetic resources conservation strategy: improving legal and institutional frameworks for the conservation and management

of natural resources; increasing the environmental awareness and educational programs at all levels of society, especially within NGOs and the National Ministry of Environment; upgrading the national capacity for biodiversity and ecological monitoring and for the planning, management and administration of protected areas; guaranteeing the long-term financial support of PGR conservation and maximizing actions likely to lead to economically, ecologically, and socially sustainable solutions for agricultural biodiversity conservation; and ensuring that biodiversity concerns are incorporated into agricultural and pastureland practices.

The project is fully in line with the Armenian **Agricultural Sustainable Development Strategy** (Revised Version, 2006) covers the main directions of the state policy in agriculture for the period 2006-2015. The overall objective of the strategy for the agriculture sector development is to promote sustainable agricultural development, increase food security level and income of the rural population through the creation of favourable environments for the entities operating in the agricultural sector. The project also supports the **Armenian Sustainable Development Program** (2008) that includes strategies for both Environmental Protection and the development of sustainable livelihoods through support to agriculture and value-adding. Further, the project is in line with the **Law for the Republic of Armenia on Organic Agriculture** (adopted April 8, 2008) which recognizes the main principles of organic agriculture, including the formation of a favourable environment for the preservation of biodiversity as a result of selective breeding of plants and livestock, as well as reduction of risks caused by human activity. The law also provides for certification in the field of organic agriculture.

A Plant Genetic Resources for Food and Agriculture (PGRFA) National Programme has not yet been developed in the country. However, elaboration of a national PGRFA programme is considered a priority as a long-term platform for implementation of international agreements, such as the Global Plan of Action on the Conservation and Sustainable Utilization of PGRFA, as well as the relevant obligations of the CBD, Framework Convention on Climate Change and Convention to Combat Desertification. Moreover the Government of Armenia recognizes the need of an effective and strong coordination both horizontally and vertically in order to minimize duplication of efforts and functions of stakeholders dealing the PGR conservation and use. In 2007 the elements of a national strategy for management and use of PGR in Armenia were developed within the framework of the FAO supported project on *Designing an Integrated Strategy to for Improved Utilisation of Plant Genetic Resources for Food Security in Armenia*. The proposed key recommendations targeted on improvement of the national integrated system will serve as a basis for elaboration of a National PGRFA Programme.

The proposed project is fully consistent with the national priorities and directly addresses its concern with promotion of research and development of agricultural biodiversity including wild relative's genetic resources, strengthening capacity to support maintenance of agricultural biodiversity, enhanced benefit sharing and promotion of conservation and use through marketing and management. The project would enable Armenia to accelerate the implementation of national priorities and policies listed above. The project reflects the importance given by the Armenian government to maintenance of diversity in productions systems and wild ecosystems, livelihood and income generation and related policy development, the three major components of this project.

The project is in line with Armenia's contribution to the CBD's Strategic Plan, and the Aichi Targets adopted at the 10th Conference of the Parties of the CBD, and the Nagoya Protocols. Most directly it will contribute to the Aichi Target 7 on sustainable management of areas under agriculture and to the maintenance of the diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically, as well as culturally valuable, species (Target 13). The project will also contribute to the indicators, being developed under the Biodiversity Indicators Partnership, led by UNEP/WCMC, for monitoring progress towards these targets. The project will also make material contributions to other targets through for example integrating biodiversity values into national and local development and poverty reduction strategies (Target 2).

### **B.2. GEF Focal area and/or fund(s) strategies, eligibility criteria and priorities:**

The project is designed to address local circumstances, integrating interventions to enhance *in situ* and on farm conservation with market based approaches. It contributes primarily to GEF Strategic Objective 2, “Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors” through the improved sustainable production of agricultural biodiversity rich products (as assessed by numbers of varieties and numbers of different crop, livestock and other the diversity of other products). The project supports Outcome 2.1: *Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation* through the development of a set of specific targeted activities aimed at improving the sustainable marketing of the products of agricultural biodiversity rich production systems and wild ecosystems – particularly medicinal species, spices, fruits and vegetables and also value-adding through agri- and eco-tourism. The ways in which certification schemes might be developed will be explored and where appropriate sustainable management and harvesting strategies and practices developed and adopted. Community driven approaches will be central to this work. The project also contributes to Outcome 2.2: *Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks* through its focus on policy aspects at local and national levels.

### **B.3. The GEF Agency’s comparative advantage for implementing this project:**

This proposed project is in line with UNEP’s role in the GEF to catalyze the development of scientific and technical analysis and advancing environmental management in GEF-financed activities. In particular, the project complements UNEP’s aim to promote specific technologies and demonstrate methodologies and policy tools that could be replicated on a larger scale by other partners.

The proposed project will benefit from UNEP’s extensive work on conservation and management of natural resources within the ecosystem context. The Project will establish synergies with UNEP’s Programme of Work, sub-programme 3: *Ecosystem Management* through Projects 4 and 9. Project 4, *Biodiversity and Ecosystem Functioning*, which seeks to develop practical tools to improve understanding of the relationship between biodiversity, ecosystem functioning and ecosystem services and apply this knowledge to ecosystem management. It also aims to develop biodiversity targets and indicators that link biodiversity and ecosystem services and integrate them into sectoral management plans. Project 9, *Evaluating the Trade-offs and Benefits of Sustainable Food Production Systems*, which aims to strengthen the capacity of national policy makers and planners to understand the linkages between food security and environmental degradation, undertake economic valuation of ecosystem services relevant to food security and analyze the trade-offs and distributive impacts of food security policies. as well as other relevant UNEP-hosted ongoing initiatives such as TEEB, IPBES, the UNEP/UNDP PEI (Poverty and Environment Initiative) and providing linkages with the broader portfolio of UNEP/GEF projects focusing i.e. on Ecosystem Services (e.g. ProEcoServ, Danube PES, etc.).

The United Nations Environment Programme (UNEP) will implement the Project and bring to bear its combined body of scientific and empirical experience of critical relevance to the objectives of the project. UNEP has provided global leadership and encourages partnership in biodiversity conservation including agricultural biodiversity conservation as well as a wealth of experience on mainstreaming biodiversity into policies, programmes and practice. Over the last decade, UNEP through the Global Environment Facility (GEF) has partnered with national and international organizations on a set of national and multi-country projects, focusing on different components of agricultural biodiversity<sup>3</sup>. As the GEF Agency for this project UNEP will provide a platform for a collaborative partnership between several national and international organizations which will bring the best available expertise in science and knowledge from the scientific community to partners who are working at the development interface at the national level, with the overall aim of mainstreaming biodiversity into sustainable development and specifically climate change planning and management.

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<sup>3</sup> See ‘Securing sustainability through the conservation and use of agricultural biodiversity – the UNEP-GEF contribution’ [http://www.unep.org/dgef/Portals/43/AgBD\\_publication\\_FINAL.pdf](http://www.unep.org/dgef/Portals/43/AgBD_publication_FINAL.pdf)

**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)
Mr. Aram Harutyunyan	Minister GEF Operational and Political Focal Point	Ministry of Nature Protection of the Republic of Armenia	06/10/2013

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE(MM/dd /yyyy)	Project Contact Person	Telephone	Email Address
Maryam Niamir-Fuller, Director, GEF Coordination Office, UNEP, Nairobi		08/05/2013	Marieta Sakalian, UNEP Senior Programme Management /Liaison Officer (CGIAR/FAO), Biodiversity	+39 06570 55969	Marieta.Sakalian @unep.org