



# PROJECT IDENTIFICATION FORM (PIF).

TYPE OF TRUST FUND: GEF Trust Fund

PROJECT TYPE: Full-sized Project

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## PART I: PROJECT INFORMATION

Project Title:	Conservation and sustainable use of globally important agro-biodiversity		
Country(ies):	Azerbaijan	GEF Project ID: <sup>1</sup>	6943
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5482
Other Executing Partner(s):	Ministry of Agriculture	Submission Date:	August 22, 2014
GEF Focal Area(s):	Biodiversity	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> Corporate Program: SGP <input type="checkbox"/>		
Name of parent program:	NA	Agency fee (\$)	395,248

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
LD-1 Program 1	GEFTF	1,075,384	8,000,000
BD-3 Program 7	GEFTF	3,085,118	12,700,000
<b>Total Project Cost</b>		<b>4,160,502</b>	<b>20,700,000</b>

### B. INDICATIVE PROJECT DESCRIPTION SUMMARY

**Project Objective:** To ensure conservation and sustainable use of globally threatened varieties important for biodiversity, food security and sustainable land management

Project Component	Financing Type	Project Outcomes <sup>2</sup>	Trust Fund	(in \$)	
				GEF Project Financing	Co-financing
<i>Component I. In-situ and ex-situ conservation of genetic biodiversity</i>	Inv	Long-term protection secured for targeted genetic resources ( <u>Annex A</u> ) through: <ul style="list-style-type: none"> <li>70 hectares of Crop Wild Relative Mini-Reserves established and operational</li> <li>Native Seed Depository established and operational</li> <li>Local seed distribution system established and operational</li> </ul>	GEFTF	1,162,383	8,490,000
<i>Component II. Investment in community-based intensified agricultural practices using traditional crop material</i>	Inv	Improved state of agricultural lands at over 0.1 mln ha of productive landscapes in three districts evidenced by: <ul style="list-style-type: none"> <li>Regional Associations of Small Scale Farmers and three Rayon Agriculture Centers established as vehicles to implement sustainable land management through intensified native crop agriculture and take it to markets.</li> <li>Training of farmers and subsequent</li> </ul>	GEFTF	2,400,000	9,500,000

<sup>1</sup> Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

<sup>2</sup> Details of outcomes and outputs are described further in the text. Ecological indicators of incremental values are described in the section on Global Benefits.

		cultivation of native seeds through intensive agriculture at 0.1 mln ha			
		<ul style="list-style-type: none"> <li>Market access mechanisms and local brands promoted</li> </ul>			
<i>Component III.</i> Enabling policy environment and setting the scene for up-scaling	TA	<p>Enabling environment created to ensure that by 2025 use of local varieties and landraces is embedded as standard agricultural practices at at over 70% (app. 0.9 mln ha) of arable agricultural land</p> <ul style="list-style-type: none"> <li>Enabling policies for subsidizing highly degraded land owners/farmers willing to apply local agro-biodiversity material,</li> <li>Information on value of local crop varieties made widely available and easily accessible to all farmers</li> <li>Post-project management plan and funding ensured for the Seed Depository</li> <li>Vocational training program for farmers in integrated land management and sustainable intensified agriculture using native seed materials</li> </ul>	GEFTF	400,000	2,500,000
Subtotal				3,962,383	20,490,000
Project Management Cost (PMC)			GEFTF	198,119	210,000
Total Project Cost				<b>4,160,502</b>	<b>20,700,000</b>

**C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
GEF Agency	UNDP	Grants	200,000
Recipient Government	Ministry of Agriculture	Grants	12,400,000
Recipient Government	Ministry of Agriculture	In-kind	1,000,000
Recipient Government	Ministry of Environment	Grants	3,500,000
Recipient Government	Ministry of Economy	Grants	3,100,000
Recipient Government	Rayon Executive authorities	Grants	500,000
<b>Total Co-financing</b>			<b>20,700,000</b>

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) <sup>b)</sup>	Total (c)=a+b
UNDP	GEFTF	Azerbaijan	Biodiversity	(select as applicable)	3,085,118	293,086	3,378,204
UNDP	GEFTF	Azerbaijan	Land Degradation	(select as applicable)	1,075,384	102,161	1,177,546
<b>Total GEF Resources</b>					<b>4,160,502</b>	<b>395,248</b>	<b>4,555,750</b>

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

Is Project Preparation Grant requested? Yes

**PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee (b)	Total c = a + b
UNDP	GEFTF	Azerbaijan	Biodiversity	(select as applicable)	111,229	10,567	121,796
UNDP	GEFTF	Azerbaijan	Land Degradation	(select as applicable)	38,771	3,683	42,454
<b>Total PPG Amount</b>					<b>150,000</b>	<b>14,250</b>	<b>164,250</b>

**F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS**

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	0.1 mln ha (size of genetic reserves to be established by the project)
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	0.9 mln ha (size of agricultural landscape in Azerbaijan alone that would benefit from project activities in the long-term, as per Component III)

**PART II: PROJECT JUSTIFICATION**

**PROJECT OVERVIEW**

**A.1. PROJECT DESCRIPTION**

**A.1.1 Global environmental problems, root causes and barriers that need to be addressed**

Azerbaijan is a traditional agrarian country: 1 million ha (52% of arable land) is covered by cereal-leguminous crops; 0.17 million ha by vegetable crops. Agriculture employs 37% of the total population. The country is one of the Vavilov's Centers of biodiversity important for agriculture<sup>3</sup>. High diversity of the soil and climatic conditions of Azerbaijan supports rich variety of plant genetic resources with more than 4,500 higher plants being registered here, 237 of which are endemic and threatened. *Durum wheat (T.durum Desf.)* is represented by 43 varieties; bread wheat (*T.aestivum L.*) by 87 varieties and races; there are 10 varieties of barley (*Hordeum L.*) and 5 varieties of rye (*Secale L.*). Added to these are numerous families of vegetable species such as *Solanaceae Hall.*, *Brassicaceae Juss.*, *Liliaceae Hall vā Chenopodiaceae Less.*, *Cucurbitaceae Hall.*, *Asteraceae*, *Portulacaceae Lindl.*, *Lamiaceae*, *Malvaceae Juss.*, and *Amaranthaceae R.Br.* etc (see Annex A). Despite this high natural genetic diversity, presently, the share of local varieties and landraces in production is only 5% for cereal crops and some 15-20% for vegetables.

The vast majority of crop and vegetable seed material is imported. Introduced species require extensive planting systems and larger planting areas. In the past 10 years, the area covered by cereal crops increased two fold and the vegetable areas 1.3 times; with this, the soil erosion increased by 25% and now over 42.5% of all agricultural lands in Azerbaijan are considered eroded. The productivity, at the same time, fell by 15%. The inability of many imported seeds to adapt to local conditions had been well documented. The rates of harvest loss to natural climatic phenomena (e.g. droughts, windstorms, pests, diseases) have proven to have risen at least 2 times compared to pre-Soviet times when local varieties and land races have been widely in use. Under proper management (as demonstrated by UNDP GEF project in neighboring Georgia), the local varieties of Caucasian Vavilov Centers demonstrate stable (and higher than imported seeds) yields, perfect soil erosion controlling qualities, excellent adaptation to poor soil conditions (including on slopes and rocky soil), less water-demanding and do not require agro-chemical input, compared to foreign seeds. The cost-effectiveness of cultivation of foreign seeds is several times higher than for local varieties. Importantly, high dependence on imported seeds is a critical national food security risk: 1.68 million people in Azerbaijan whose income depends on this sector can be considered vulnerable.

<sup>3</sup>Conservation of genetic resources and their use in traditional food production systems by small farmers of the Southern Caucasus. <http://www.fao.org/docrep/014/i1687e/i1687e.pdf>

## **Barrier 1. Loss of local varieties and land-races and absence of systemic information on location and threats of crop wild relatives**

The main phase of the loss of agrobiodiversity started in early 1900s when the Soviet Union set up a collective agricultural system. Instead of nurturing own varieties and land races, farmers were given the seeds and procedures to grow them. Instead of growing for own consumption and intensifying practices to raise rates of harvest and own income, farmers lost their individual businesses, and were brought to be part of collective farms, whereby what they grew went into common pool and came back to them from completely different distribution channels. The knowledge of the origin of food material was no longer there, except for those very small parcels each farmer would be left with to grow for his own family consumption.

An agrarian reform followed the collapse of Soviet collective agriculture in early 1990s. This included return to private land ownership and establishment of free seed market in the country. Most “new” farmers reverted to using the same seeds that were used under the Soviet system or imported seeds, with the share of the latter growing, to the extent that it currently presents 95% of all cereal crop used in production. Imported seeds turned out to be the low-hanging fruit. Even though local varieties can still be found scattered in some farms and research centers, they are in very small quantities. The result is that farmers do not have access to seeds and/or planting material of local varieties. The capacities of the regional State Sort & Test Points are limited. There is no seed depository: valuable collections and stocks of endemic varieties began to erode fast after the collapse of the Soviet system, many species are threatened and some have already become extinct<sup>4</sup>. There is no intake of seeds from areas growth of wild crop relatives, and no seed distribution and farmer exchange system for local varieties and land races. Even though local varieties would have performed much better than introduced ones in conditions of reduced agrochemicals and water inputs, these are just not available for planting.

Knowledge of areas where crop wild relatives grew was quickly lost and presently remains with only few experts and specialized research institutions. Much of this area was lost by now, and the attention to the need to identify and conserve the areas of growth of wild relatives of local land races and varieties returned only recently under the pressure of UN Convention on Biological Diversity. The challenges rest with lack of adequate coordination among agencies responsible for the preservation of the local genetic diversity, and no work for identification and protection of wild crop relative areas.

## **Barrier 2. Missing on-farm know-how on characteristics and growing methods of local land races and varieties**

The knowledge about characteristics of local varieties has been eroded significantly during the Soviet planned economy. The Soviet system of agricultural production was dominated by the use of a handful of introduced varieties under conditions of substantial application of agrochemical and water inputs. Knowledge about different characteristics of local varieties, which would greatly contribute to farmer’s food security (e.g. resistance to water stress; acceptable yields under limited or absence of agrochemical inputs), has been lost and was not restored after the re-introduction of private land ownership in early 1990s.

After a period of 70 years endemic varieties remained restricted mainly to research and agricultural extension centers<sup>5</sup>. Consequently, information about the benefits and growing conditions for local varieties become restricted to the technical staff of research and extension centers and the few families that kept local varieties of crops. Farmers lack the know-how to re-initiate the cycle of production and planting of local seeds. The new land owners (40% of total population = 870,000 household) who received their land shares as a result of reform in 1996 are not aware of local varieties and land races since most of them have never worked in agriculture or ecology (teachers, builders, cultural workers, medical workers, those working in the field of legislative bodies and other professions) and have a-priori no experience in farm management. Farmers lack the necessary knowledge for seed selection and tend to choose introduced crop variety seeds often available in the market at low cost. The crop yields from these seeds maybe productive and profitable in the short run, but introduced species are not well adapted to local climate circumstances in the long run. With some help from extension services, recently 10% of farmers started to use hybrids with local varieties and this helped to maximize crop yields, but there is no system for sharing the knowledge across the farmers’ community, and the number of farmers who use local seeds remains low. Very few extension services have capacities to reach out to a larger share of farmers with know-how on characteristics and planing methods of local varieties and land races. The lack of awareness about the

<sup>4</sup> Conservation of genetic resources and their use in traditional food production systems by small farmers of the Southern Caucasus. <http://www.fao.org/docrep/014/i1687e/i1687e.pdf>

<sup>5</sup> Research and extension centers experimented with crossing of local and introduced varieties.

characteristics of local varieties combined with their scarcity in the field constitutes a major barrier for their re-introduction on farm.

Though the current main advantage of local varieties lies in their contribution to increasing farmers' food security, they also have the capacity to enter premium markets in Azerbaijan and abroad. Local varieties under threat that are produced following organic agriculture protocols would appeal to a selected consumer groups. However, the production techniques (including storage, sorting, packaging, transportation), certification procedures and contacts with premium markets are beyond the current capacity of local farmers and this further discourages the adoption of local and threatened varieties.

### **Barrier 3. Inadequate policy and legal framework**

There are gaps in the policies governing the agricultural sector. While the central institution for the development of the agricultural policy is the Ministry of Agriculture, it has no presence at the rayon level. Instead, agricultural policies are implemented by the local executive powers offices, most of the time without proper coordination with the Ministry of Agriculture. Shortcomings in this direction led to the issue of a Decree by the President on "Improvement of agricultural management and acceleration of institutional reforms" (April 2014) which calls for the establishment of the Rayon Agriculture Centers. However, there is an evident lack of expertise in the country on establishment of such centers and their subsequent operation plan and Terms of Operation.

There are no incentives for farmers to be engaged in production of local varieties and those who cultivate products in land plots which are threatened by erosion. Some further gaps in the current legislation include lack of policies on cross farmer cooperatives, on protection of the domestic seed material, on establishment of eco-businesses in the agricultural sector and standards in conformity with international biodiversity requirements. Inadequate level of vocational education in the agrarian sector, no fairs for eco-products and no exhibitions for promotion of local agro-biodiversity products all contribute to low share of use of native seeds and varieties.

#### **A.1.2 Baseline scenario and associated baseline projects**

An important Government policy-setting agenda for sustainable land management and conservation of plant bio-diversity is the National Strategy on Agricultural Development (2014-2020), which envisages: (a) capacity building of the central and peripheral institutions to enable implementation of agricultural policy; (b) enhancing extension services rendered to farmers; (c) supporting independent small farmers for forming economically viable livestock and crops production, including creation of group-farming and building of cooperatives. Despite being a major document determining vision on agricultural development, the Strategy has inadequate budget for implementation of activities in the area of re-introduction of local varieties and conservation of wild crop relatives. The strategy is also not accompanied with concrete action plan. The proposed GEF alternative offers an opportunity to the Government to cover this gap, through project's Component I and III.

In order to accelerate the development of the non-oil sector in the country, to archive diversification of the economy, balanced regional and sustainable social and economic development as well as improvement of living standard of the population the "State Program on social and economic development of the regions of the Republic of Azerbaijan 2014-2018" was approved by the President of the Republic of Azerbaijan, which envisages: i) stimulation of agricultural producers (mainly local cereals and vegetable producers); ii) increase of wheat production and enhancement of competition capacity and, iii) support to food security in the country. The GEF project introduces the emphasis of using "local varieties and land races" for the implementation of this baseline program and sets up a model of cooperation between Ministry of Ecology and Natural resources, Ministry of Agriculture, Ministry of Economy and Industry, State Committee of Land and Cartography.

The Government of Azerbaijan stimulates agricultural production through direct cash payments to farmers for each new hectare planted, primarily to plant more wheat and rice as per the Decision of the Cabinet of Ministers (16 November 2007 No.181) on the *Allocation of funds from the state budget for improving financial incentives for wheat and rice producers and stimulating wheat and rice production*. Over the course next 5 years this baseline program will allocate approximately US\$ 29 million / year (including co-financing to this project as indicated in the relevant table above under Ministry of Agriculture). Under the baseline scenario, Government will continue funding the farmers without differentiating whether they are growing local varieties and land-races vs. imported crops. The proposed GEF alternative

therefore is critical to enable new legal environment to create a channel of support to the farmers who cultivate local varieties (Component III).

The baseline support to *Extension Services* amounts to approximately US\$ 3 mln / year. It covers personnel and basic infrastructure costs, as well as limited support to irrigation and fertilizer. It also covers research programs on hybridization with local varieties but, as mentioned above, with the given funding and scope the program is unable to reach out to more than 10% of farmers with information on the characteristics and growing technologies for local varieties. The baseline funding for the establishment of the above-mentioned Rayon Agriculture Centers amounts to US\$ 2 mln (also serves as co-financing to this project under Ministry of Agriculture), but as mentioned above, the country does not have know-how for actual establishment and operation of such centers, which this project is going to address through Component II.

The project builds on some of the activities of the EU-supported program on *Agriculture and Rural Development (ARD)* in Azerbaijan (total budget is app. US\$15 mln). The objective of this baseline initiative is to promote sustainable agricultural and rural development in order to diversify the economy of Azerbaijan. The following elements of this baseline initiative are relevant stepping stones for the GEF initiative: encouraging entrepreneurship in the field of agricultural and rural development by improving business environment and institutional capacity; seed sector development with a special focus on legislation. The EU program, however, is focusing primarily on legislation, policies, regulations, as well institutional building, training and limited technical assistance. The project will use the policy and capacity building work and enhance it with on-the-ground investment in the concrete rayons identified in this project. It will further compliment the EU program with the agrobiodiversity aspect of the seed management (which EU project is not primarily focusing on), as well as with support to Rayon Agriculture Centers and farmer association.

The project is also indirectly benefit from the World Bank's *Agricultural Competiveness Improvement Project (ACIP)*, app. US\$34 mln). The WB project indeed is focusing on agriculture, but its main focus is on facilitating the access of agricultural producers to markets by strengthening sanitary and phytosanitary services. Among other activities, the WB program promotes agribusiness/food processing through providing access to finance to improve their technologies and increase production, and upgrading and modernizing the plant protection and veterinary services, enhancing selected value chains and providing financial services to agribusiness enterprises. This last element of the WB program will be hooked up with the business promotion activities of the GEF project (Component II), in that the financial assistance mechanisms used in the WB program might be considered to be taken up in the GEF project too, but noting that the GEF assistance will be oriented to promoting native seeds and varieties (which is not covered by the WB project specifically). More concrete cooperation mechanisms will be considered at the PPG stage.

A picture of baseline scenario and benefits under GEF alternative are summarized under Section A.1.4. Without incremental funding from GEF, under the business-as-usual scenario, a shift towards the uptake of sustainable intensified agriculture based on wide adoption of local varieties and land races will not be possible.

### **A.1.3 Proposed alternative scenario, with description of expected outcomes and components of the project**

The alternative scenario will ensure conservation and sustainable use of threatened local plant genetic resources important to biodiversity, land integrity and food security of Azerbaijan. The project concentrates on the steppe, arid and semi-arid zones in Shaki, Goranboy and Kurdemir rayons. On the one hand these are areas which are most affected by wind and irrigation erosion, on the other hand they are home for wild relatives of crops and local land races. 56% of the income of communities in Shaki, Goychay, and Goranboy rayons comes from cereal, cereal-leguminous and vegetable crop agriculture respectively. Household farms here have best remaining traditional skills in crop and vegetable cultivation and relevant facilities/institutions (seed base, research institutes, NGOs) with high potential to raise the share of local genetic material in the production. The three components of the project address the three barriers described above.

Component I aims at putting a hold on the loss of genetic diversity, by identifying and protecting it in-situ, and ensuring multiplication and distribution of it among the farmers. As first step, the project will support the conservation of wild relatives of crops and vegetable through the establishment of micro-reserves upon careful mapping of target areas. It is not uncommon in the Caucasus to find significant numbers of wild relatives concentrated in small areas (e.g. 1 ha). The project will support the efforts of the various research institutes and the Ministry of Agriculture in identifying these hot spots and providing them with a reserve status and management. The project will complete the identification of pockets where traditional varieties of crops and fruits have still been preserved. Special emphasis will be given to wild relatives of crops as their availability for seed and planting material has not been assessed in a long time and no reliable data exists on

their geographical distribution and availability. The reserves will be demarcated and assigned under jurisdiction of Ministry of Agriculture. Management capacity of target rayon Agriculture Centers and regional State Sort & Test Points will be strengthened to manage the reserves. The Project will support establishment of a database on genetic diversity, to which farmers would have access to. As a next step, the project will establish a native seed depository: the seeds of targeted crops (see Annex A) will be collected; multiplication plots will be established and maintained through partnership between Azerbaijan Genetic Resources Institute, Institute of Cropping, Institute of Vegetables, Institute of Fodder and Farmers Association. The sizes of the multiplication plots will be estimated based on the required amount of seed for each variety. The Regional State Sort & Test Points with support for researchers will manage the plots, distribute the seeds to association members and constitute the main vehicle for the provision of technical support. The distribution of seeds will be done through a *seed rotation fund*. During the project timeframe, the initial pool of farmers will receive seeds free of charge with the condition that at harvesting they return 1.5 units for each unit of seed received. One unit would be used for incorporating new farmers to the rotational fund and/or further multiplication, while the remaining part would be stocked as a security fund (in case of future poor harvests). By the end of the project, it is expected that the Regional State Sort & Test Points will have mastered the process of seed production and distribution and become a self-sustainable entity.

Component II will invest in building capacities and know-how of farmers in growing the crops and vegetables using local varieties and land races with intensified soil protecting technologies. To aid in this, Regional Association of Small Scale Farmers will be established for farmers interested in participating in the project. The Association will formalize existing informal links among farmers and serve as an extension center with the support of the project and distribute/maintain seed and planting material. The Farmers Association will monitor the quality of harvests and decide which seeds will be further distributed during the next season and which will be kept in the security fund. The Farmers Association is also expected to facilitate coordination among its members so that economies of scale can be obtained, for example by reducing transportation costs to markets or by avoiding each farmer having to negotiate alone its harvest with an intermediary.

The Association will oversee the actual planting of native seeds, soil improvement, irrigation and harvesting at an expected area of 0.1 mln ha by participating farmers. To enable this, the project will train farmers in conservation, growing practices, processing, and marketing of the selected crops and species. The trainings will be implemented by newly established and well capacitated Rayon Agriculture Centers and regional State Sort & Test Points of the Ministry of Agriculture and regional veterinary centers. In addition to the emphasis on native seed values and growing regime, emphasis will be made on erosion protection and efficient irrigation systems. Field days and workshops will be conducted regularly. Farmers will be encouraged to visit the most successful farms to share experience and information with other farmers.

While one of the most important advantages of local varieties is to improve food security of the farmer's household, they also have potential for commercialisation. Several cereal, leguminous and vegetable crops have niche market segments where Azerbaijan has a comparative advantage (e.g. seasonality, product range, cost advantages). The project will select those products with best chances of entering the market and support development of marketing strategies for each of these products. It will define production standards for each selected product so as to facilitate their promotion in the domestic and foreign markets. Special attention will be paid to the development of organic products. The project will support farmers in establishing links with food processors, local distribution channels and trade counterparts with experience in exports to Western Europe. The export potential of targeted varieties and products will be enhanced through organic certification.

In collaboration with the Farmers Association, the project will identify groups of producers and support them in the development of business proposals. Local varieties will also be promoted through organic fairs and expositions. Selected organic products will be presented at organic fairs abroad.

Component III will enable the use of traditional crop varieties to be embedded into national and rayon policies and financial mechanisms, addressing the legal deficiencies and paving the way for replication. The project will design activities, TOR and budget of the Rayon Agriculture Centers envisaged by the President Decree of April 2014 on Improvement of Agricultural Management. Policies to reorient some of the subsidies and low-interest loans for farmers under the State Agricultural Support program will be designed to enable post-project support to intensive agriculture using local varieties and land races. For the sustainability and replication of the seed depository, the project will design the annual activity plan, management structure and TOR, seed rotation / exchange principles and financial provisions that would enable self-sufficiency of the fund.

The project will organize information on availability of seed and seedlings, characteristics of local varieties, location, planting technologies and end-use practices in a database and post it on the web site. In addition to this database, the site will also provide information on all ongoing and planned activities including the farm operations, training, field days, promotional workshops, and publications. At the later stages of the project, the site will provide information on suppliers of new products and stores that carry the certified products, as well as farms available for visiting by tourists and researchers. Links with other agricultural biodiversity related sites (local and foreign) will be established, including arranging study exchange visits with participants in other UNDP-managed GEF-funded biodiversity projects in the Caucasus and beyond. The site will also contain a geographical map of the targeted diversity based on GIS format. Catalogues with photos and detailed descriptions of crops and fruit trees will be prepared and published and also used in the vocational training curriculum set up in partnership with the Agrarian University.

***A.1.4 Incremental/additional cost reasoning and A.1.5 global environmental benefits***

Summary of baseline scenario	Summary of GEF alternative	Incremental global benefits and key local benefits
<p>Ecological baseline:</p> <ul style="list-style-type: none"> <li>Continued loss of the areas of wild crop relatives of globally important genetic resources due to missing inventory and lack of in-situ protection (no areas in fact are designated as genetic reserves)</li> <li>Low productivity of harvest grown from imported seeds; high susceptibility of crops to wind storms, pests and droughts; high rates of soil erosion.</li> </ul> <p>Institutional and economic aspects:</p> <ul style="list-style-type: none"> <li>Just 10% of farmers are aware of advantages of local varieties and land races and of technologies for their cultivation using intensive agricultural methods</li> <li>Absence of market / brands of local varieties</li> <li>Financial assistance available for better compliance with veterinary norms and standards but only limited financial support of Government to farmers for growing local agricultural crops. Government will continue funding the farmers without differentiating whether they are growing traditional or introduced crops</li> <li>High dependence of Azerbaijan agriculture on imported seeds presenting a food security threat</li> <li>Missing term strategy and action plan for conservation and sustainable use of agrobiodiversity.</li> <li>Under-capacitated Regional AgricultureCenters unable to provide extension services in the area of intensive use of local varieties and land</li> </ul>	<ul style="list-style-type: none"> <li>Country’s first genetic reserves created</li> <li>Agrobiodiversity mapped, inventories, well defined, and put under protection and sustainable management</li> <li>System for storing seeds, multiplication of local varieties and their distribution and exchange among farmers put in operation</li> <li>Capacities of Rayon Agriculture Centers, Sort and Testing Points are sufficient to continuously render extension services to farmers cultivating intensively local varieties and land races</li> <li>Farmers organized into association enabling cooperation and economies of scale in land management, crop cultivation, access to market</li> <li>Branding strategies launched for select crops ensuring premium in the market</li> <li>System for on-site training and vocational education for farmers</li> <li>Legal deficiencies rectified in the area of agrobiodiversity conservation and use</li> <li>State Government Agricultural program reorients some of its subsidy and micro-loan programs towards financing of intensified cultivation of local varieties</li> </ul>	<ul style="list-style-type: none"> <li>Globally important genetic proliferates through its application at app. 0.9 mln ha (70% of landscape in the long run, by 2025)</li> <li>Genetic reserves covering 70 ha ensure protection of globally important wild crop relatives ensuring protection of adequate population sizes</li> <li>Over 70% of farmers in the country are aware of the advantages and growing technologies of local varieties</li> <li>At least 40% of farmers in project areas have easy access to and apply native genetic material ex-situ</li> <li>At least 15% increase in on-farm farmer application of native varieties and landraces (cereal-leguminous and vegetable crops) and this number increases in the long term perspective due to new Government financing mechanisms of agrobiodiversity initiated under project</li> <li>Improved vegetation cover, increase of water provision and decreased soil erosion by at least 14% at an area of 0.1 mln ha (absolute baseline and target values pending PPG phase; replication potential = 0.9 mln ha);</li> <li>Increase in vegetable and cereal crop productivity by 25% in the target districts as a result of</li> </ul>



<p>racas</p> <ul style="list-style-type: none"> <li>• Limited cooperation among small-scale land holders and no system for their vocation training</li> <li>• Existing seed depositories do not have sufficient stock of local varieties, miss sustainable operation plans and proper engagement/cooperation mechanisms with the farmers</li> </ul>	<p>[For a detailed description of the alternative please refer to description of project outcomes above].</p>	<ul style="list-style-type: none"> <li>• application of local varieties</li> <li>• 20% increase in presence of local varieties and landraces in agricultural markets in target districts</li> <li>• Secured livelihoods and food base for 200,000 people as a result of minimized dependence on imported seeds</li> </ul> <p><i>Survey instruments for indicators of the above to be designed during the PPG phase, including the establishment of baselines and targets</i></p>
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### A.1.6 Innovativeness, sustainability and potential for scaling up

**Innovativeness:** The project is innovative for Azerbaijan and for wider Caucasus region in several ways: (1) Rayon Agriculture Centers can become a new model of ensuring delivery of training and advisory services use agro biodiversity and sustainable management of land resources. (2) The project sets up Regional Association of Small Scale Farmers – much needed cooperative to ensure direct exchange of know how among farmers and create economies of scale at the grassroots level. These Associations will be the main hub to transfer the knowledge on the importance of conservation and use of traditional agro biodiversity for sustainable land management to the whole country. (3) The project creates Seed Depository and direct seed exchange mechanisms among farmers stimulating increase in presence of local varieties and landraces in agricultural markets. (4) For the first time, an attempt will be made to reorient Government funding in agriculture: the project will establish subsidies scheme in pilot districts to support the farmers who cultivate local crop varieties, ensuring smooth transition from imported to local varieties, and the mechanism is this activity key for project’s sustainability and replication.

**Sustainability:** The project design entails several elements to ensure sustainability of project results in the long run. Firstly, the project will create capacities at the district level both for farmers and agricultural decision-makers to apply local varieties and technologies of intensified land management. The project capacity building strategy will be designed in such way as to ensure that the beneficiaries are incapacitated to carry on initiated activities on their own after the end of the project. Secondly, the project will establish a Seed Depository and set up agreement with Farmers of Association/Union on 1:1.5 return of seed material to replenish the seed distribution fund, which will enable penetration of use of local variety seeds into the agriculture market in the long run. Thirdly, farmers will be provided with incentive in the form of government subsidy to grow traditional crops which will be embedded into the national agricultural policy context. As part of its exit strategy, the project will design post-project sustainable operation plan for the Seed Depository and Seed Distribution Funded to be managed by the project beneficiaries. After project termination date, administration and operational costs of the seed fund will be covered through commercial sales of seeds.

Operationally and financially, the newly established Regional Agriculture Centers will be supported and embedded in the structure of the Ministry of Agriculture as stipulated by the Decree by the President on “Improvement of agricultural management and acceleration of institutional reforms” (April 2014), and is part of the baseline cofinancing commitment of the Government to this proeject. Moreover, if the model proves to be successful, the government is planning to create more such centers across the country. It is expected that the Ministry of Agriculture will allocate at least 10 mln USD to maintain the Regional Agriculture Centers from its annual operational budget. The local structure and staffing of the Regional Agriculture Centers will be under consideration of the Cabinet of Ministers, in expectation of the lessons to be learnt from this project.

**Replication and dissemination.** Immediate resource mobilization mechanisms will include the careful documentation of results and development of pragmatic replication materials, which will then be disseminated to key stakeholders through a set of national, regional and local events. If hailed as success management model of the Rayon Agriculture Centers to be created at the pilot districts can be replicated for the other rayon centers to be created over the course of next 10 years. Similarly, the project plans that the Seed Depositories and seed distribution fund mechanism will be applied in other parts

of the country stimulating more farmers to switch to using traditional agro biodiversity. Most importantly, the reoriented Government subsidies (Component III) will ensure funding for agrobiodiversity cultivating farmers across the country. Lessons and best practice will also be shared with other countries through learning exchanges.

## A.2. STAKEHOLDERS.

### WILL PROJECT DESIGN INCLUDE THE PARTICIPATION OF RELEVANT STAKEHOLDERS FROM CIVIL SOCIETY AND/OR INDIGENOUS PEOPLE? YES

STAKEHOLDER	RELEVANT ROLES
Ministry of Agriculture	The Ministry will act as the implementing partner for the project. It is responsible for formulating, implementation, monitoring and evaluation of the agricultural policy in the country that includes production and processing of agricultural products, delivering support services to producers, protection agro biodiversity, sustainable management of land resources. At the grassroots level, the project will closely partner with Rayon Agriculture Centers and regional State Sort & Test Points managed by the Ministry of Agriculture. Main project activities on capacity building, enhancement of in-situ and ex-situ protection of agro biodiversity resources will be channeled through these departments of the Ministry.
Ministry of Ecology and Natural Resources	The Ministry is responsible for coordination of the state programs on land and biodiversity management. Houses both focal points on UNCCD and UNCBD and is the primary government institution for the implementation of projects aimed at sustainable eco-system management. Will be primarily engaged in the implementation of Component 1.
Ministry of Economy and Industry	The Ministry of Economy and Industry Development is a central executive body that develops the economic policy of the Azerbaijan republic, provides economic and social forecasts, designs and implements the state policy for the development of different areas of the economy (including rural development agenda), coordination of state support for entrepreneurship. The Ministry will act as one of the key partners in creation of Regional Association of Small Scale Farmers and development of market access mechanisms and local branding strategy. It will also contribute to developing and sustaining enabling environment for subsidizing or funding highly degraded land owners/farmers and agro-biodiversity growers under Component 3.
The State Committee of Land and Cartography of Azerbaijan	Committee is the central executive power body developing land cadaster/cartography, exercising rights on land management restoration and increase of productivity. The committee will assist the project in land degradation and agro biodiversity mapping activities under.
Local Executive Powers Offices and municipalities	Local executive powers offices and municipalities are main executive decision-making bodies at the rayon level. They will participate in all 3 Outputs of the project as main bridge between the project and its planned activities (capacity building, outreach, demonstration, communication with target groups) at the rayon level.
Farmers and local communities	As the main target group of the project, farmers and local communities will be engaged in design, delivery, and evaluation of project activities on sustainable land and biodiversity management.
<b>NGOs</b>	
Ganja Agribusiness Association Ganja Agribusiness Association (GABA)	GABA is a regional non-governmental organization whose mission is to promote sustainable development of the country's agrarian sector through human potential development. They will support the design and implementation of training modules on integrated land/biodiversity management policies. The networks of the NGO will be used in project related outreach activities. The particular geographical focus is Goranboy region.
Agro Information Service (AIM) overall objective	AIM is a non-governmental organization regional whose mission is is to improve the productivity and self-reliance of newly established private farmers through agricultural extension, information dissemination, and the establishment of institutional infrastructure supporting the rural/agricultural sector. They will

STAKEHOLDER	RELEVANT ROLES
	support the design and implementation of training modules on integrated land/biodiversity management policies. The networks of the NGO will be used in project related outreach activities. The particular geographical focus is Goychay & Shaki regions.
<b>Academic institutions and Universities</b>	
Azerbaijan State Agrarian University (ASAU)	ASAU is the only professional university in Azerbaijan focusing on agriculture. They will be engaged in the development of capacity building activities for the project
Azerbaijan Genetic Resources Institute of Azerbaijan National Academy of Science	The institute is responsible for research, ex-situ and partial in-situ conservation activities of the agro-biodiversity values in Azerbaijan. They will be engaged under the project Outputs 1 & 3 to support the collection, distribution and keeping of the local plant seed and creation of Seed depository and follow management plan for it.

### A.3 GENDER CONSIDERATIONS

The project covers the geographic region with estimated population of nearly 200,000 people, where women constitute 51%. The project will directly cover 10,000 household farms in 3 target rayons, where 2,000 direct beneficiaries are women. Female farmers will be targeted to benefit equally from the capacity building activities under the project. According to the reports produced by local and international organizations engaged in agriculture, women comprise the major segment of the society who is directly engaged in agricultural field work in Azerbaijan.

Women are the major drivers behind seed selection and conservation activities; hence their participation in seed sorting, selection and conservation is crucial for the success of the project. Priority will be given to the female farmers to participate in the new agro biodiversity subsidy scheme to be created under the project. Women are expected to benefit from the new financial scheme resulting in increased income of rural households. Project activities will put local women leaders at the core of implementation and will demonstrate the important role of community leadership in the successful uptake of proposed schemes and practices. At the preparation stage, socio-economic survey will be conducted among the target households that will include gender-specific analysis. The results of this survey will be then used to establish quotas for women farmers participating in the new agro biodiversity subsidy scheme so that they at least are on the same proportion as men. Focused consultations will be conducted with women farmers in all three rayons to tap on their knowledge for the preparation of seed collection and conservation strategies. Further details on gender specific activities will be elaborated at the PPG stage.

Note: there are no indigenous communities in the project areas.

### A.4 RISKS

Risk	Level	Mitigation
Farmers may be resistant to switch to growing local varieties	M	Values of switching to local varieties will be explained to the farmers through professional education opportunities (especially, vocational training at rayon levels) in order to support curriculum courses and topics on local biodiversity preservation, management and utilization. Special subsidy scheme will be created to assist the local crop variety producers under Component 3. Farmers will be provided access to the Seed Depository which will contain and distribute seeds of selected traditional crops.
The operation of the ex-situ agro biodiversity institutions created within the project may be discontinued after the project closure	M	Post-project management and sustainability plan will be developed to ensure continuous operation of ex-situ conservation institutions to be created under Output 2. Local stakeholders will be empowered to manage these institutions after the project closure through targeted training programs and enhanced ownership.
Climatic / weather risk: droughts or diseases undermine harvest rates	H	Although bad weather conditions (such as drought) or biotic stresses (e.g. disease epidemics) will lower crop yields, they would simultaneously stress the advantages of traditional crops because of their better adaptation. However, if for several years the weather conditions turn out to be unusually optimal for agricultural production, yields will be higher for imported commercial varieties than for traditional crops. This will add

Risk	Level	Mitigation
		difficulties to the project in regard to replication and expansion of activities to non-marginal rural areas. However, the chances of high rates of negative climatic phenomena are currently considered high. In any case, the project will clearly demonstrate the adoption of targeted varieties in rural marginal areas where water availability is a problem even in the presence of generally favorable weather conditions and where soil is poor and chemical inputs mostly unavailable.

#### A.5. COORDINATION

The project is coordinated with GEF funded UNDP implemented “Sustainable Land and Forest Management in Greater Caucasus landscape” project which is focusing on forest and grassland areas, but is also looking into soil condition that would ultimately result in improved organic content, which can be of use for the implementation of Component 2. The UNDP Office will ensure close collaboration between the two projects.

As mentioned in the baseline, EU cooperation in the field of Agriculture and Rural Development (ARD) in Azerbaijan is going to promote sustainable agricultural and rural development in order to diversify the economy of Azerbaijan. It focuses on encouraging entrepreneurship in the field of agricultural and rural development by improving business environment and institutional capacity, review the seed sector policy framework and provide recommendations to bring the relevant legislation in line with international standards, identification of future training and technical assistance needs in the seed sector. The GEF project is complementary to these activities as it introduces local agrobiodiversity aspect into the seed sector policies developed under the ARD project. Furthermore, the project is also complementary to the World Bank (WB) program on Agricultural Competitiveness Improvement Project (ACIP). The overall objective of WB project is to facilitate the access of agricultural producers to markets by strengthening sanitary and phytosanitary services, enhancing selected value chains and providing financial services to agribusiness enterprises. The Project would further promote agribusiness/food processing through providing access to finance to improve their technologies and increase production, and upgrading and modernizing the plant protection and veterinary services. The GEF project will coordinate with WB project on access of agricultural producers to market and enhancing value chains of target products components.

The GEF project team will also coordinate with the USAID funded “Azerbaijan Trade Linkages and Agribusiness Strengthening (ATLAS)” project which focuses on improving of quality and quantity of goods produced (e.g., working with select value chains such as vegetables); and application of Good agricultural practices components for giving more value and getting high quality and quantity product from local vegetable varieties.

#### DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS

##### IS THE PROJECT CONSISTENT WITH THE NATIONAL STRATEGIES AND PLAN OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS? YES

The Fifth National Report to the UNCBD highlights the importance of using traditional agricultural crops that are noted for resistance to negative impacts of climate change and are considered to be important for country’s long-term food security and can partially address the problem of land degradation/desertification. Agro biodiversity in Azerbaijan is protected by the Law on the Republic of Azerbaijan on Conservation and Sustainable Use of Plant Genetic Resources (13 December 2011, No.273 IVQ) and subsequent Decision of the Cabinet of Minister on application of certain normative-legal documents supporting the implementation of this Law (13 November 2012 No. 259).

The project supports the achievement of Aichi Targets of the UNCBD as below :

- Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity

The project is in line with the UNCCD 10-year Strategic Plan namely, with two pillars: 1) implementing SLM technologies in areas important for biodiversity; and 2) measures to reduce vulnerability of affected ecosystems to climate


change, climate variability and drought. The project is further aligned with the National Strategy on Agricultural Development (2014-2020) which calls for: a) measures to ensure sustainable use of natural resources for agriculture purposes; (b) capacity building of the central and peripheral institutions to enable implementation of the envisaged development policy, including re-organization and training of staff; (c) enhancing extension services rendered to farmers; (d) supporting independent small farmers for forming economically viable livestock and crops production, including creation of group-farming and building of cooperatives. The project will support “the research on cultivation and selection of diverse species of traditional plants, use of which is in decline” according to the National Strategy.

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

**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).

NAME	POSITION	MINISTRY	DATE
H. Bagirov	Minister, National GEF Focal Point	Ministry of Ecology and Natural Resources	August 7, 2014

**B. GEF AGENCY CERTIFICATION**

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation under GEF-6					
Agency Coordinator, name	Signature	Date	Project Contact Person	Telephone	Email Address
Adrianna Dinu UNDP-GEF Executive Coordinator and Director a.i.		8/22/2014	Maxim Vergeichik Regional Technical Advisor, EBD	+ 421 259 337 152	Maxim.vergeichik@undp.org

## ANNEX A LIST OF TARGETED GENETICALLY IMPORTANT LOCAL VARIETIES TARGETED BY PROJECT

### I. Cereal crops (wheat (Triticum L.))

1. Sari bughda, (*triticum aestivium*)
2. Parzvan 1(*triticum aestivium*)
3. Gyrmzyzy bughda, (*triticum aestivium*)
4. Kosa bughda (*triticum aestivium*)
5. Aran (winter bread wheat). (*triticum aestivium*)
6. Azamatli (winter bread wheat). (*triticum aestivium*)
7. Giymatly (*triticum aestivium*)
8. Gobustan(*triticum aestivium*)
9. Ruzy(*triticum aestivium*)
10. Garagylchyg (*triticum durum dest.*) (*darum wheat variety*).
11. Agh bugda (*darum wheat variety*).
12. Tartar (*darum wheat variety*).
13. Akinchi (*darum wheat variety*).
14. Azeri (*darum wheat variety*).
15. Barakatly (*darum wheat variety*).
16. Elince (*darum wheat variety*).
17. Karabakh. (*darum wheat variety*).
18. Local white wheat (white spike). one of the oldest local durum wheat varieties.
19. Arandani. (*darum wheat variety*).
20. Xoranka. (*darum wheat variety*).
21. Sharq. (*darum wheat variety*).
22. Cultural two-grained wheat –parinj (*triticum dicoccum schuebl*) .
23. Shirvan.
24. Mugan.

### II. Cereal crops (barley(*Hordeum vulgare L* )

25. Gara arpa,
26. Dagh arpasi,
27. Agh arpa
28. Mirbashir.
29. Mirvari.

### III. Cereals (Bean(*Phaseolus vulgaris L*)

30. Galibiyyet yerli. (Folk selection).

### IV. Vegetables

(Tomato (*Lycopersicon Tourn*))

31. Elim.
32. İlkin.
33. Vatan.
34. Zarraby.
35. İlyas.

Aubergine (*Solanum melongena L.*)

36. Zahra.
37. Ganja.
38. Byllur.

Sweet pepper (*Capsicum annum L.var grossum sendt*)

39. Murad.
40. Yadigar.
41. Zumrud.

Bitter pepper (*Capsicum annum L. SSP. Acerium Fil.*)

42. Goygol.

Cucumber (*Cucumis sativus L.*)

43. Kirovabadskiy mestny.

44. Azeri.

Watermelon (*Citrullus vulgaris Pang.*)

45. Marcan.

Potato (*Solanum tuberosum L.*)

46. Sevinch.

47. Ag chicek.

48. Emiry.