



# GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZE PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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## PART I: PROJECT INFORMATION

Project Title:	Institutional Capacity Strengthening for Implementation of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Uganda		
Country(ies):	Uganda	GEF Project ID: <sup>1</sup>	9481
GEF Agency(ies):	UNEP	GEF Agency Project ID:	01378
Other Executing Partner(s):	National Environment Management Authority; Uganda National Council for Science and Technology	Resubmission Date:	October 03, 2017
GEF Focal Area(s):	Biodiversity	Project Duration (Months)	48
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 (\$)	243,280

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
BD-3: Program 7: <i>Securing Agriculture's Future: Sustainable Use of Plant and Animal Genetic Resources</i>	GEFTF	1,000,000	2,100,000
BD-3 Program 8: <i>Implementing the Nagoya Protocol on Access and Benefit Sharing</i>	GEFTF	1,560,842	7,135,000
<b>Total Project Cost</b>		<b>2,560,842</b>	<b>9,235,000</b>

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To strengthen institutional capacity for effective implementation of the Nagoya Protocol and to conduct an effective awareness campaign on ABS in Uganda						
Project Components	Financing Type <sup>3</sup>	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
<b>Component 1:</b> Strengthened National Regulatory and Institutional Framework for Access and Benefit Sharing (ABS)	TA	<b>Outcome 1.1:</b> National ABS regulatory and institutional frameworks in compliance with the Nagoya Protocol on ABS in places  2,617,166 274,843	Output 1.1.1: National legislation on ABS reviewed, updated and harmonized in line with the provisions of the Nagoya Protocol on ABS  Output 1.1.2 Institutional framework in place to facilitate compliance to Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT)  Output 1.1.3 Guidelines for accessing genetic resources and benefit sharing in Uganda reviewed and updated line with the Nagoya Protocol on ABS  Output 1.1.4: Systems for management of permits for ABS by Competent National	GEFTF	200,000	1,935,000

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

<sup>2</sup> When completing Table A, refer to the excerpts on *GEF 6 Results Frameworks for GETF, LDCF and SCCF*.

<sup>3</sup> Financing type can be either investment or technical assistance.

			<p>Authorities (CNAs) developed and implemented</p> <p>Output 1.1.5: National Policy on ABS developed and implemented</p>			
<p><b>Component 2:</b> Capacity building for the implementation of Nagoya Protocol on ABS</p>	TA	<p><b>Outcome 2.1</b> Government agencies have the skills and competency to implement and enforce compliance to the Nagoya Protocol on ABS including PIC and MAT</p> <p><b>Outcome 2.2:</b> Makerere University training and producing professionals with knowledge on ABS</p> <p><b>Outcome 2.3:</b> Accessible and usable databases for tracking and monitoring utilization of genetic resources</p> <p><b>Outcome 2.4:</b> ABS National Point and CNAs effectively carrying out their functions</p>	<p>Output 2.1.1: Government agencies at national and sub-national level trained on the implementation and enforcement of Nagoya Protocol on ABS</p> <p>Output 2.1.2 Check points for monitoring compliance to PIC and MAT designated, trained and functional</p> <p>Output 2.1.3: Expertise at the national and sub-national level on PIC and MAT established and functional</p> <p>Output 2.1.4: Information on PIC, MAT and origin of genetic resources collected, verified and properly documented</p> <p>Output 2.1.5 Institutional structure for implementing the Nagoya Protocol on ABS at the national and sub-national level established and operational</p> <p>Output 2.2.1: Curriculum at Makerere University updated to incorporate training on ABS for long-term capacity building for effective implementation of the Nagoya Protocol on ABS<sup>4</sup></p> <p>Output 2.2.2: Scientists, social workers and lawyers trained on ABS including PIC and MAT</p> <p>Output 2.3.1: Existing data management systems for three<sup>5</sup> depositories for genetic resources accessed under ABS improved</p> <p>Output 2.4.1: Capacity of National Environment Management Authority (NEMA)<sup>6</sup> and CNAs for effective implementation of the Nagoya Protocol on ABS strengthened</p> <p>Output 2.4.2: At least three<sup>7</sup> Competent National Authorities (CNAs) designated and trained to enhance compliance with PIC and MAT on utilization of genetic resources</p>	GEF TF	800,000	3,250,000

<sup>4</sup> Makerere University has department that deals with indigenous knowledge, ethnomedicine and genetic plant resources and this forms the basis for starting a training programme on ABS.

<sup>5</sup> The project will target three depositories – Two in Makerere university (the National Herbarium and Museum) and Plant Genetic Resources Centre

<sup>6</sup> NEMA is the institution that coordinates implementation of the Nagoya Protocol on ABS. The ABS National Focal Point is based in NEMA

<sup>7</sup> Two additional CNA will be designated for the following: animal genetic resource and plant genetic resources

<p><b>Component 3:</b> Strengthening ABS Management at the Local government and Community Level</p>	<p>TA</p>	<p><b>Outcome 3.1:</b> Effective working models for ABS at the local community level</p> <p><b>Outcome 3.2</b> Research findings support compliance to PIC and MAT on traditional knowledge on use of medicinal plants</p> <p><b>Outcome 3.3</b> Regulatory framework on traditional knowledge in compliance with the Nagoya Protocol</p> <p><b>Outcome 3.4:</b> Effective participation of men and women in benefit sharing</p> <p><b>Outcome 3.5</b> Collaborative forest management with local communities covering 170,316 ha. in seven protected areas</p>	<p>Output 3.1.1: Appropriate community structures<sup>8</sup> identified and/or established for ABS management</p> <p>Output 3.1.2: At least two indigenous groups (the Batwa and Karamojongs) trained on PIC and MAT to enhance their negotiation skills</p> <p>Output 3.1.3: Model contractual clauses, codes of conduct on best practices on ABS developed and piloted</p> <p>Output 3.2.1.Partnership on scientific research on traditional knowledge associated with the conservation and management of genetic resources by local communities in Karamoja and the Batwa established with Makerere University and operationalized</p> <p>Output 3.2.2: Medicinal formulae used to treat diseases (like malaria, wounds, swelling) by the Batwa and Karamojong established and registered with the Uganda registration bureau</p> <p>Output 3.3.1: Community protocols on access to traditional knowledge associated with ABS developed and piloted in Karamoja region and for the Batwa in south western Uganda</p> <p>Output 3.4.1 Develop and implement guidelines for gender mainstreaming in ABS for local communities</p> <p>Output 3.5.1: .Regulations on collaborative forest management developed in line with the Nagoya Protocol on ABS</p> <p>Output 3.5.2: Seven Collaborative Forest Management structures with local communities adjacent to the Kadam, Napak and Mount Moroto Central Forest Reserves in Karamoja; Bwindi Impenetrable National Park, Mgahinga National Park, Semuliki National Park and Echuya Central Forest Reserve in south-western Uganda developed and implemented</p>	<p>GEF TF</p>	<p>1,084,632</p>	<p>2,650,000</p>
<p><b>Component 4:</b> Information, Education and Awareness on ABS</p>	<p>TA</p>	<p><b>Outcome 4.1:</b> Increased awareness in Uganda on the Nagoya Protocol on ABS</p>	<p>Output 4.1.1: Awareness and communication strategy on ABS developed and implemented</p> <p>Output 4.1.2: CNAs and Checkpoints trained on the use of the ABS-CH</p>	<p>GEF TF</p>	<p>354,265</p>	<p>1,200,000</p>

<sup>8</sup> In Uganda there are a number of structures at the local community level and these include clan structures, cultural institutions and then the established Government structures from local council 1 at village level to local 3 at sub-county level and then local council 5 at the district level. In terms of ABS the challenge is to decide which of these structures would best be appropriate for ABS. The project will thus explore how these structures would work on matters concerning ABS with a view to identifying the ones that are most appropriate.

			Output 4.1.3: Awareness and educational materials on ABS developed and disseminated			
			Output 4.1.4 Roster of technical and communication experts on ABS developed and operationalised			
<b>Subtotal</b>					<b>2,438,897</b>	<b>9,035,000</b>
Project Management Cost (PMC) <sup>9</sup>				GEF TF	121,945	200,000
<b>Total Project Cost</b>					<b>2,560,842</b>	<b>9,235,000</b>

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ( ) NA

### 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 (\$)
Recipient Government	National Environment Management Authority (NEMA)	Grants	500,000
Recipient Government	National Environment Management Authority (NEMA)	In-kind	1,600,000
Recipient Government	Uganda Wildlife Authority (UWA)	Grants	600,000
Recipient Government	Uganda Wildlife Authority (UWA)	In-kind	1,200,000
Recipient Government	National Forest Authority (NFA)	Grants	200,000
Recipient Government	National Forest Authority (NFA)	In-kind	800,000
Recipient Government	Plant Genetic Resources Centre (PGRC) - National Agricultural Research Organization (NARO)	Grants	150,000
Recipient Government	Plant Genetic Resources Centre (PGRC) - National Agricultural Research Organization (NARO)	In-kind	750,000
Recipient Government	Uganda National Council for Science and Technology (UNCST)	Grants	250,000
Recipient Government	Uganda National Council for Science and Technology (UNCST)	In-kind	800,000
Recipient Government	National Forestry Resources Research Institute - National Agricultural Research Organization (NaFORRI-NARO)	Grants	150,000
Recipient Government	National Forestry Resources Research Institute - National Agricultural Research Organization (NaFORRI-NARO)	In-kind	750,000
Recipient Government	National Chemotherapeutic Research Institute (NCRI)	Grants	100,000
Recipient Government	National Chemotherapeutic Research Institute (NCRI)	In-kind	300,000
Recipient Government	Makerere University	Grants	150,000
Recipient Government	Makerere University	In-kind	500,000
Development partner	GIZ / ABS Capacity Development Initiative	In-kind	135,000
CSO	Karamoja Women Cultural Group	In-kind	100,000
CSO	United Organization for Batwa Development in Uganda	In-kind	200,000
<b>Total Co-financing</b>			<b>9,235,000</b>

<sup>9</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

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

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
UNEP	GEF TF	Country - Uganda	Biodiversity	Biodiversity	2,560,842	243,280	2,804,122
<b>Total GEF Resources</b>					<b>2,560,842</b>	<b>243,280</b>	<b>2,804,122</b>

Refer to the [Fee Policy for GEF Partner Agencies](#).

**E. PROJECT PREPARATION GRANT (PPG)<sup>10</sup>**

Is Project Preparation Grant requested? Yes  No  If no, skip item E.

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

Project Preparation Grant amount requested: \$100,000					PPG Agency Fee: \$9,500		
GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee <sup>11</sup> (b)	Total c = a + b
UNEP	GEF TF	Country – Uganda	Biodiversity		100,000	9,500	109,500
<b>Total PPG Amount</b>					<b>100,000</b>	<b>9,500</b>	<b>109,500</b>

**F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>12</sup>**

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
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	170,316 hectares

**PART II: PROJECT JUSTIFICATION**

*Project Description.* Briefly describe:

**1.1 The global environmental and/or adaptation problems, root causes and barriers that need to be addressed**

Uganda covers an area of 241,038 sq. km. and has a tropical climate with an average temperature ranging from 18-28 degrees centigrade. Uganda is endowed with a vast array of landscapes of incredible aesthetic beauty, ranging from glacier-topped mountains, rain forests, savannahs and dry deciduous acacia bush-land to numerous lakes, rivers and wetlands. The diversity of the country's landscape, along with a wide variation in climate and soils, combine to give Uganda an impressive range of terrestrial and aquatic ecosystems. Open water areas account for 17% of the country's surface area, dominated by five major lakes (Victoria, Albert, Kyoga, Edward and George), as well as about 160 minor lakes and an extensive river system. Wetland ecosystems including swamp forests, papyrus and grass swamps account for somewhere between 11-13% of the country, and natural forests and woodlands together cover an area of nearly 50,000 km<sup>2</sup>. Uganda has designated many areas under different forms of protection, including 10 National Parks, 12 Wildlife Reserves, 10 wildlife sanctuaries, 5 community wildlife areas, 506 central forest reserves, 191 local forest reserves and 12 Ramsar Sites.

<sup>10</sup> PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>11</sup> PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

<sup>12</sup> Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

With its wide range of habitats, Uganda is a country of exceptional biological diversity, encompassing a zone of overlap between the savannahs of East Africa and the West African rain forests since it lies in the inter-convergence zone of the global tropical climate. 18,783 species of fauna and flora have been recorded in the country, which places Uganda among the top ten most biodiverse countries globally. Uganda is host to 53.9% (400 individuals) of the world's remaining population of mountain gorillas, 11% (1,057 species) of the world's recorded species of birds (50% of Africa's bird species richness), 7.8% (345 species) of the Global Mammal Diversity (39% of Africa's Mammal Richness), 19% (86 species) of Africa's amphibian species richness, 14% (142 species) of Africa's reptile species richness, 1,249 recorded species of butterflies, and 600 species of fish. Plant genetic resources (PGR) in Uganda range from little known indigenous wild fruits and vegetables, pastures and forages, medicinal plants, indigenous staples like millet and sorghum to introduced crops such as maize, tobacco, coffee, cotton and beans.

Uganda has a total of 56 major ethnic groups, of which the Batwa, the Karamojong and the Benet are considered indigenous groups, constituting approximately 3.3% of the total population of 34.8 million (2014 census). The three indigenous populations are represented by the United Organization for Batwa Development in Uganda (from Kisoro); the Karamoja Women Cultural Group (from Karamoja); and the Benet Group from Mt Elgon, and the three associations are planning to establish a national office in Kampala to help them better coordinate their activities. These associations also network with similar organizations in neighbouring countries on various issues, including advocating for the protection of traditional knowledge and practices and the formulation of policies for the protection of the rights of the indigenous groups. Indigenous groups in Uganda utilize traditional knowledge in a variety of ways, most importantly for production of foods and medicines. For example, the Karamojong are mainly pastoralists and much of their culture is associated with animal keeping; the treatment of animal diseases depends heavily on the use of herbs, including extracts from sandalwood for the treatment of wounds, swellings and other ailments in cattle, sheep and goats (sandalwood extracts are also used to preserve milk products). Karamojong also rely heavily on the use of herbs for treatment of diseases in humans. Because biological resources are so important, anyone found cutting medicinal plants is punished in Karamojong communities.

### Problem

In Uganda, over 80% of the population depends directly on the exploitation of natural resources, and the high levels of diversity in plants and animals in the country contribute greatly to the ability of the population to secure benefits in terms of food provision/security, medicines, and income generating opportunities. However, a number of threats to Uganda's biodiversity arise from the fact that flora and fauna species are not considered economically important by local communities and development sectors, and economic actions that degrade or cause a loss of biodiversity are perceived to be more profitable than conserving native species or the habitats on which they depend. Some of the most important threats to biodiversity in the country include the loss of habitat due to clearance of forest cover for settlement and agriculture and encroachment on and drainage of wetlands for grazing and agriculture; overharvesting of wood to satisfy the high demand for forest products like charcoal, fuelwood and timber; poaching and illicit trade in species for food, medicines, cash and game trophies; replacement of local crop varieties with introduced commercial varieties, leading to loss and neglect of traditional varieties, including crop wild relatives; and the introduction of new animal breeds that replace local breeds, and cross-breeding of introduced and local breeds, which reduces the overall genetic variability of animals being reared. In each of these cases, the value of genetic and species diversity is perceived to be less than that of the destructive activities that degrade this diversity.

There are several reasons why biodiversity is not more highly valued, including lack of (or inability to exercise) ownership of resources; displacement of the costs of ecosystem degradation onto others; poor regulatory and enforcement capacities; etc. But a key issue in many cases is the lack of mechanisms / systems to identify and establish value addition to genetic resources and ensure that it is fairly allocated to local communities. Without value addition to biodiversity, destructive use of biodiversity by local communities will continue leading to loss of species and ecosystem services that are vital for human well-being, and especially for the poorest and most vulnerable local communities and populations (i.e. women and children; indigenous groups). More broadly, the potential benefits that Uganda can receive from the exploration and exploitation of its genetic resources for drugs, medicines, food, and agrochemicals has yet to be explored in any detail, which further contributes to the undervaluing of genetic resources and their consequent overexploitation. In addition, traditional knowledge of local communities that is associated with genetic resources is disappearing, and important forms of traditional knowledge such as medicinal uses for biological resources (e.g. herbs extracted from local plants) are being replaced by modern technology and products.

Globally biodiversity is in decline and many factors are contributing to the decline. The Millennium Ecosystem Assessment report of 2005 identifies human activities as the main cause of changes in biodiversity and these include over-exploitation, pollution, and the impacts of Invasive Alien Species, among others. The Nagoya Protocol on ABS has the potential to reduce loss of biodiversity through access and benefit sharing arrangements that promote the conservation and sustainable use of biodiversity. Uganda is a Party to the Nagoya Protocol whose objective is the fair and equitable sharing of benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to the technologies, and by appropriate funding thereby contributing to the conservation of biological diversity and the sustainable use of its components. The implementation of the Protocol thus contribute to improving livelihoods especially of local communities, secure human wellbeing, and promote conservation, sustainable use and equitable benefit sharing of biodiversity.

### Institutional – Policy – Legal Context

In the past decade, Uganda has made positive steps towards establishing policy, legal and institutional frameworks for the management of ABS related issues. Uganda has signed and ratified all the relevant international Conventions and Protocols on ABS. Guidelines for Accessing Genetic Resources and Benefit Sharing in Uganda were developed in 2007. The National Environment (Access to Genetic Resources & Benefit Sharing) Regulations, Statutory Instrument No. 30 of 2005 were crafted after the Bonn Guidelines to provide for the sharing of benefits derived from genetic resources; to promote the sustainable management and utilization of genetic resources; to prescribe procedures for access to genetic resources for scientific research, commercial purposes, bio-prospecting or industrial application and to provide for the sharing of benefits derived from genetic resources. The 2005 ABS Regulations recognize Uganda National Council for Science and Technology (UNCST) as the Competent National Authority (CNA) with a mandate to issue research and access permits, a system that functions well. A 2015 MoU among the core institutions like National Environment Management Authority (NEMA), UNCST and National Agricultural Research Organisation (NARO) complements the ABS Regulations, as it details the working relationship between these three institutions in light of the fact that the ABS framework is not yet compliant with the Nagoya Protocol on ABS. Under the 2005 regulations, access to genetic resources in Uganda is not granted unless: (a) Prior Informed Consent (PIC) has been obtained from the lead agency<sup>13</sup>, local community or owner of a genetic resource (this is also a requirement under Article 6 of the Nagoya protocol on ABS); (b) where access to genetic resources is likely to have adverse impact, an Environmental Impact Assessment (EIA) is carried before a Mutually Agreed Terms (MAT<sup>14</sup>) are concluded and (c) entered into with the lead agency (d) obtain access permit<sup>15</sup> issued by Competent National Authority (CNA).

At the institutional level, the Uganda National Council for Science and Technology (UNCST) has been designated as the CNA for ABS. Among other functions related to ABS, UNCST is responsible for: processing applications for access to genetic resources, coordinating all activities of lead agencies relating to access to genetic resources, establishing and maintaining a depositories, facilitating negotiations including the terms and conditions upon which access is to be granted, and ensuring the people of Uganda benefit from the genetic resources accessed and submitting reports to NEMA on the implementation of the regulations. NEMA is responsible for formulating national policy on access to genetic resources, carrying out public awareness, designing capacity building programmes and ensuring compliance with and enforcement of regulations, and developing guidelines for access to and export of genetic resources. UNCST and NEMA together are responsible for ensuring collaboration among all agencies with responsibilities related to ABS.

The long-term solution advanced by this project is to conserve biological and genetic resources of Uganda in compliance with the Nagoya Protocol (NP). However, Uganda must overcome the following barriers that currently prevent the fulfilment of the proposed solution, as described below.

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<sup>13</sup> Lead agency is any ministry, department, parastatal agency, local government system or public officer in which or in who any law vests functions of control or management of any sections of the environment (National Environment Act Cap 153)

<sup>14</sup> MAT is an agreement between Government or its representative and a collector, setting out the terms under which genetic resources can be transferred from one party to another (National ABS legislation, 2005)

<sup>15</sup> Access permit is a permit that authorizes a person to access biological or genetic resources (National ABS legislation 2005)

## Barriers

<p><b>Component 1:</b> Strengthened National Regulatory and Institutional Framework for ABS</p>	<p>Although Uganda has made notable progress in developing policy, legal and institutional frameworks for the management of ABS, a number of barriers remain. A preliminary assessment has identified numerous gaps which need to be addressed in the current national legislation on ABS, including <i>inter alia</i>: i) Mechanisms for negotiating PIC and MAT; ii) Monitoring utilization of genetic resources &amp; designation of checkpoints &amp; certificate of compliance; iii) Access of genetic resources for development of commercial products in-country; iv) Regulation of access of genetic resources for multiple uses for example food, medicine, spices; v) Intellectual Property considerations for ABS and inter-relation with the patent laws; vi) Effectiveness of the EIA process for ABS. In terms of policy barriers, the existing National Environment Management Policy and the National Environment Act do not adequately address ABS issues; existing mechanisms for coordination and enforcement of legislation on ABS are inadequate; guidelines for Collaborative Forest Management (CFM) and Revenue Sharing (RS) are out of date and are not in conformity with the requirements of the Nagoya Protocol on ABS and the national legislation on ABS; and there is a lack of agreements and mechanisms for ensuring the fair distribution of monetary and non-monetary benefits stemming from medicinal products derived from genetic resources. At the institutional level, weak institutional capacity, and a lack of clarity on the roles and responsibilities of different institutions (as well as other stakeholders including indigenous and local communities), has prevented effective implementation of national legislation on ABS. In addition, Uganda needs to designate more than one National Competent Authority in order to effectively implement the Nagoya Protocol ABS, particularly in terms of enforcement.</p>
<p><b>Component 2:</b> Capacity building for the implementation of the Nagoya Protocol on ABS</p>	<p>Effective implementation of the Nagoya Protocol on ABS requires substantial institutional capacities, which are not yet entirely in place in Uganda. For example, although Uganda has clear institutional arrangements for implementation of ABS, UNCST as the NCA does not have adequate personnel or sufficient training to execute its functions, while the ABS National Focal based in NEMA has no supporting structures at the national and sub-national level to handle the various aspects of ABS. As a result, at these institutions lack the capacities and expertise required to handle applications or to develop and monitor compliance to MAT; have inadequate negotiation, coordination and networking skills and mechanisms; and lack capacity to enforce compliance measures. Uganda is lacking in trained and skilled personnel to manage ABS. Most practicing plant taxonomists are not trained in plant taxonomy but are drawn from such diverse fields like forestry, ecology, entomology, pathology, etc., and most work for public or national institutions that suffer from chronic funding shortfalls. Existing depositories lack systems for proper management and sharing on genetic resources accessed under ABS arrangement. There is no national database of natural collection specimens with checklists and species distribution maps because of the significant gaps in information on taxa in the country (Annex 1).</p>
<p><b>Component 3:</b> Strengthening ABS Management at the Local Community Level</p>	<p>Implementation of effective ABS regimes in Uganda is constrained by the lack of management structures, capacities and practical experiences at the local community level. At present, there is no working model at the community level for implementing national ABS legislation, and there are no PIC and MAT templates that are community responsive and culturally appropriate. In general, district local governments and rural communities have little to no skills or experience ABS negotiations, or enforcement of ABS laws and regulations. Community organization around natural resource management and use is also minimal – none of the communities adjacent to central forest reserves in Karamoja region have established Collaborative Forest Management (CFM), which reduces the potential for collaboration between communities and government agencies and the ability of local residents to negotiate formal agreements on ABS. In south western Uganda the Batwa depend on medicinal plants to treat a number of diseases like pneumonia, backache, controlling/stopping bleeding from the nose or from accidents, treatment for pregnant women among others. Historically, the Batwa were forest-dwelling hunter-gatherers, maintaining livelihoods within the high altitude forests around Lake Kivu and Lake Edward in the Great Lakes region of Central and East Africa. The Batwa are widely regarded by their neighbours, and historians, as the first inhabitants of the region, who were later joined by incoming farmers and pastoralists approximately 1000 years ago. Today, the Batwa are still living in Rwanda, Burundi, Uganda, and eastern Democratic Republic of Congo. In each of these countries the Batwa exist as a minority ethnic group living amongst the largely Hutu and Tutsi populations. In Uganda their neighbours are the Bafumbira and Bakiga People. Approximately 6,700 Batwa now live within the present State boundaries of Uganda, with approximately half living in the south-west region of Uganda. The Batwa in this region are former inhabitants of the Bwindi Impenetrable National Park, Mgahinga Gorilla National Park, Semuliki National Park and Echuya forest Reserve, where they lived since time immemorial in coexistence with the environment and in full reliance on the forest for their physical, economic, spiritual, and social sustenance. They were evicted from these protected areas upon their declaration and they now live adjacent in communal groups.</p>
<p><b>Component 4:</b> Information, Education and Awareness on ABS</p>	<p>Issues relevant to ABS are not widely known or understood in Uganda. Uganda has not yet established national Clearing House Mechanisms on ABS, and to date there is no reliable national platform to support information sharing and public awareness on ABS issues. At national level, local level, communities, district governments and other local decision makers are not aware of the tangible benefits that can be accrued from effective implementation of the Nagoya Protocol on ABS and as well as the national legislation on ABS.</p>



## 1.2 The baseline scenario or any associated baseline projects

The project will coordinate with on-going activities and projects on ABS including:

The Uganda National Council for Science and Technology (UNCST) has a number of on-going programmes on ABS with a total budget of approximately US\$0.2 million over the project period, including: (i) co-development of the ABS - Plant Genetic Resources for Food and Agriculture (PGRFA) coordination framework between NEMA, UNCST and the PGRC-NARO; (ii) implementation of ABS through regular processing of MAT (mainly for research purposes); and (iii) implementing ABS regimes for commercial or other uses of biodiversity, for example sandalwood in Karamajo and Cycads with the Makerere University Herbarium. The National Environment Management Authority (NEMA) is carrying out several relevant programmes, including: (i) mainstreaming of ABS (through the NBSAP II, which has national strategies and targets on ABS ) into the National Development Plan II; (ii) integrating ABS issues into the National Environment Bill 2015 and the revised draft National Environment Management Policy (2014); (iii) implementing the Guidelines for Accessing Genetic Resources and Benefiting Sharing in Uganda; (iv) promoting sustainable management of genetic resources outside protected areas with a particular focus on shea butter trees in north and north-eastern Uganda and the sandalwood in Karamoja region. These initiatives will be complemented by capacity building for effective implementation of the Nagoya Protocol over the next several years, with a projected investment of US\$0.5 million.

The National Forestry Authority (NFA) has 52 collaborative forest management (CFM) initiatives in 35 central forest reserves (CFRs) on access and benefit sharing with local communities adjacent to the Central Forest Reserves (CFRs). Under the CFMs, communities have access to medicinal plants, firewood, vegetables, mushroom and building materials mainly to support livelihoods. Establishing the quantities of genetic materials commonly accessed by local communities and establishing the sustainable harvests and economic values of quantities extracted is a priority area for NFA in the next 4-5 years. NFA has established a new regional office in Karamoja, which will work with local governments and communities in setting up CFMs with the local communities around the Mt Moroto, Napak and Kadam Forest Reserves. In addition NFA has embarked on the process of developing a Benefit Sharing Policy around CFRs, a process that will include nation-wide consultations with a range of stakeholders including the CFM groups. The Uganda Wildlife Authority (UWA) is implementing a revenue sharing program in various wildlife protected areas including Kidepo National Park, the Pian-Upe, Matheniko and Bokora Game Reserves, and the Karenga Community Wildlife Area in Karamoja and in Bwindi Impenetrable National Park, Mgahinga Gorilla National Park and Semuliki National Park in south western-Uganda. These programs have been considered a success, although major challenges persist, including crop raiding by wild animals; poor infrastructure (i.e. roads and hotels); poaching and prolonged dry seasons forcing wildlife out of the park for water. To date, US\$114,500 has been collected in the Matheniko Bokora and Karenga sites to be used for community development programmes, and UWA plans to invest US\$600,000 in revenue sharing programmes for wildlife protected areas in the Karamoja region over the next four years, with a focus on strengthening law enforcement to curb poaching, supporting community-based eco-tourism initiatives to improve local community livelihoods, and managing problem animals outside protected areas. In South-western Uganda the revenue sharing with local communities adjacent to Bwindi Impenetrable National Park, Mgahinga Gorilla National Park is about US\$606,000 per year and it is projected that a minimum of US\$ 3 million will be provided to local communities in the next five years under the revenue sharing programme.

A multi-donor GIZ ABS Capacity Development Initiative, supported by the Government of Germany, has included Uganda in the current project phase (2015-2018) with a budget of US\$0.2 million. Under this initiative, a series of activities will be supported and coordinated with NEMA, UNCST and NARO to ensure consistency and complementarity with national ABS work and specifically with the planned UNEP GEF project, namely: gap analysis to identify areas of the ABS framework that are not Nagoya Protocol compliant; review of the legal and administrative system; supporting the creation of an IT-based application and monitoring system, based on the concept currently developed by the ABS Initiative and its experts; establishing discussion fora between Genetic Resources (GR) providers from Uganda and GR users in the EU, with special focus on *Prunus africana*; supporting the establishment of ABS-compliant value chains with IPLC involvement, preferentially dealing with *Prunus africana* and traditional medicinal plants with TK; analysis of publications and patents with GR from Uganda, cross check with research permit data; study on the nature and type of access permits to identify user groups and develop targeted capacity development measures; and strengthening existing material transfer agreements and CITES permits with ABS clauses.

The United Organization for Batwa Development in Uganda (UOBDU) has an established office in Kisoro in south-western Uganda and is engaged in advocating for the rights of Batwa on issues of access to genetic resources in the forests like medicinal plants where they once lived specifically Bwindi Impenetrable National Park, Mgahinga National Park, Semuliki National Park and Echuya Central Forest Reserve. The Karamoja Women Cultural Group (KWCG) has offices in Moroto and is engaged in advocating for the rights of the indigenous groups in Karamoja to benefit from genetic resources and the use of traditional knowledge associated with the utilization of those resources including the sandalwood.

### **1.3 The proposed alternative scenario, with a brief description of expected outcomes and components of the project**

With this project, which has the objective to strengthen institutional capacity for effective implementation of the Nagoya Protocol, the project will strengthen Uganda's implementation of and compliance with the Nagoya Protocol which will provide greater legal certainty and transparency to suppliers and users of Genetic Resources (GR) by providing elements for the creation of a national legal framework that promotes and fosters prior informed consent to access and use of GR and associated traditional knowledge, while strengthening opportunities for fair and equitable sharing of profits arising from their utilization, based on mutually agreed terms. The major outcomes of the project will include:

- a) National legislation on ABS aligned to the Nagoya Protocol on ABS;
- b) Effective implementation of national legislation on ABS and the Nagoya Protocol on ABS as a result of capacity building interventions for stakeholders in implementing ABS;
- c) Awareness strategy and information sharing framework (national ABS CH) used in creating awareness on ABS;
- d) Value of traditional knowledge associated with genetic resources used for improved policy making, conservation and sustainable use of biodiversity, and negotiation for equitable sharing of benefits;
- e) Local communities in the project area benefitting from extraction of genetic resources by the private sector

The project will achieve its objective and outcomes through four components, which are described below.

#### **Component 1: Strengthened National Regulatory and Institutional Framework for ABS**

Activities under Component 1 will seek to strengthen the regulatory and institutional framework for ABS and traditional knowledge and bring it into compliance with the Nagoya Protocol. The project will support the development of a national ABS regulatory framework that seeks to achieve, *inter alia*, the following: (i) fulfil Uganda's legal obligation to fully implement CBD; (ii) ensure that all bio-prospecting initiatives are legally carried out and the benefits fairly and equitably shared; (iii) encourage the establishment of systems for open exchange of information among key stakeholders; (iv) promote the recognition of Traditional Knowledge (TK) associated with biological resources; (v) promote recognition of the value of biological resources and diversity and thus drive their conservation and sustainable use, and; (vi) enable custodians of these resources and associated TK to receive benefits and alternative livelihood opportunities. To achieve these objectives, the project will undertake a review and updating of existing national legislation and aligning it to the Nagoya Protocol on ABS on access and benefit sharing. The National Environment Management Policy and the National Environment Act will also have issues on ABS reviewed and strengthened. The project will assess the strengths and weaknesses of existing institutional arrangements and coordination mechanisms to enable implementation of ABS related legislation, and based on this, will identify and put into place measures to strengthen coordination and implementation of ABS laws and regulations, including pilot programs to test effectiveness and capacity of institutions to implement the revised ABS national legislation. Existing but out-of-date guidelines on Collaborative Forest Management (CFM) under NFA and on Revenue Sharing (RS) under UWA will be reviewed and updated to bring them into conformity with the requirements of national legislation and the Nagoya Protocol, and the project will support NFA and UWA in developing regulations on ABS with local communities and improving community access to GRs inside PAs. The project also will address institutional frameworks, administrative systems, rules and procedures in order to strengthen Uganda's implementation of the national ABS framework. Coordination mechanisms and systems for implementation and enforcement of legislation on ABS will be established and made operational; training will be provided on the development and effective implementation of MTAs; and institutional capacities will be strengthened to enable compliance with provisions of national legislation and the Nagoya Protocol, including putting in place a monitoring system for tracking genetic materials accessed under ABS and taken out of Uganda, and establishing checkpoints to monitor the movement of genetic materials into and out of Uganda. The project also will work to mainstream ABS implementation into the development plans and work programs of public institutions responsible for ABS and for access to biological and genetic resources. Guidelines for accessing genetic resources and benefit sharing in Uganda developed in 2007 will be reviewed and aligned to the Provisions of the Nagoya Protocol on ABS. Currently there is no clear system or mechanism in place to ensure compliance to PIC and MAT. The project help to put in place

institutional arrangement and administrative measures to facilitate compliance to PIC and MAT as well as putting in place systems for management of permits for ABS by competent national authorities. Guidelines for accessing genetic resources and benefit sharing in Uganda reviewed and aligned to provisions of the Nagoya Protocol on ABS. Uganda currently has no policy on ABS. A national policy on access to genetic resources and benefit sharing will be developed in tandem with the review and updating of the national legislation on ABS.

## **Component 2: Capacity building for the implementation of the National ABS**

Uganda has inadequate technical capacities and expertise to implement its responsibilities and obligations under the Nagoya Protocol. For example Uganda is also required to designate check points for effective implementation of the Nagoya Protocol which will require users to provide information including PIC and MTAs among others, but to date no check points have been established. Check points will be designated and trained to enhance monitoring compliance and transparency on the utilization of genetic resources in Uganda. Check points will among others play the role of documenting information on PIC, MAT and origin of the genetic resource. Additional Two CNAs will be designated to address the current challenge of having only one CNA. Specific CNAs for will be designated to handle PIC and MAT associated with wildlife and forestry. Training will be carried out by this project for the designated CNAs and the necessary support provided by the project for the establishment and operationalization of the new designated CNAs and check points. Capacity needs for the ABS Unit in NEMA will be carried out and the project will use the recommendations to strengthen capacity of NEMA in coordinating implementation of the Nagoya Protocol on ABS. Capacity needs of Government institutions at the national and sub-national level will also be undertaken to guide capacity building and training programmes on ABS by the project. The capacity building will target the following institutions whose mandates and activities are related to ABS namely the Ministry of Tourism, Wildlife and Antiquities (MTWA), the Uganda Wildlife Authority (UWA), the National Forest Authority (NFA), the Forest Sector Support Department (FSSD) in the Ministry of Water and Environment (MWE) and the National Agricultural Research Organization (NARO). Activities under Component 2 will help to establish a capacity building programme (taking into consideration the outcomes on capacity building under COPMOP1) to expedite implementation of the Nagoya Protocol on ABS with a focus on strengthening the institutional capacity of NEMA, UNCST and district local governments for effective implementation of the Nagoya Protocol on ABS. The project will provide capacity building to the biodiversity section of NEMA, which hosts both the ABS and CBD National Focal Points, to strengthen its coordination and implementation of the Nagoya Protocol, and it will explore options for designation additional National Competent Authorities (apart from UNCST) for the Nagoya Protocol. District governments will be trained in supporting compliance with legal requirements on ABS and putting in place more effective and robust enforcement systems. Local governments are among the lead agencies that are required to issue PIC but this function is not being executed due to lack of knowledge and capacity on ABS. The project will therefore carry out training of all local governments within the jurisdiction of the targeted 7 PAs on the implementation of the Nagoya Protocol on ABS and equip them with necessary knowledge and skills. Furthermore the project will help local governments in setting up structures at the district and local community level for implementing the Nagoya Protocol on ABS. The project will also carry out training for taxonomist to equip them with knowledge on the Nagoya Protocol on ABS. From the training taxonomist will be in position to effectively play their role in ABS issues including provision of taxonomic information checklists to facilitate informed decision making on PIC and MAT. The project will train and equip personnel in NEMA and UNCST in negotiating skills and approaches to ensure that there is expertise built on developing PIC and MAT and in compliance and enforcement strategies for ABS. The project also will support Makerere University in establishing systems existing depositories<sup>16</sup> for proper management and sharing of information on genetic resources accessed through PIC and MAT as required by the Nagoya Protocol. Databases to facilitate tracking and monitoring utilization of genetic resources and compliance to PIC and MAT will be established. The project will also support community development initiatives that contribute to access and benefit sharing. One of these initiatives will be the propagation of a threatened species such as *Prunus Africana* which has medicinal properties that are used for treatment of prostate cancer. In addition to supporting local communities in the propagation *Prunus africana* for conservation of the species, the project will carry out training on PIC and MAT for owners of *Prunus africana* to ensure that traditional knowledge associated with the resource are accessed in accordance with PIC of the owners and through established MAT. This project will provide capacity building and help to establish and strengthen mechanisms for better coordination and sharing of experiences on ABS between UOBDU and KWCG. IPLCs will be trained on PIC and MAT to provide them

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<sup>16</sup> The National Herbarium and Zoology museum at Makerere University are the depositories for genetic resources accessed under ABS

with negotiation skills on ABS so that local communities will gain more benefits from providing access to genetic resources in their custody.

### Component 3: Strengthening ABS Management at the Local government and Community Level

The project will carry out pilot demonstration activities on the sustainable use of genetic resources within a formalized ABS framework in the Karamoja region of north-eastern Uganda and in south-western Uganda. In Karamoja, sandalwood has long been used by local communities for a variety of purposes, including preservation of milk and the treatment of ailments such as malaria, yellow fever, wounds and body swellings. *Prunus africana* is used traditionally in western Uganda for the management of enlarged prostate glands, *Warburgia Ugandensis* commonly used in the management of various diseases including bacterial and fungal infections, *Citropsis articulata* used as an aphrodisiac *Hallea rubrostipulata* used for management of malaria in the central region and *Rhus vulgaris* used for management of diabetes locally. The Batwa in south western Uganda depend on medicinal plants (Annex 2) to treat a number of diseases like pneumonia, backache, controlling/stopping bleeding from the nose or from accidents, treatment for pregnant women among others. In carrying out activities in the Karamoja and south-western Uganda, the project will seek to establish an effective working model for ABS at the community level that can be replicated in other parts of the country. The project also will work with local communities to develop, test and implement PIC and MAT, and in so doing will help to establish the extent to which PIC and MAT in national legislation responds to or is relevant to the needs of local communities. The project will train districts and local communities on PIC and MAT to provide them with knowledge and skills on negotiations for benefit sharing for genetic resources under their jurisdiction which are to be accessed under ABS arrangement. In Uganda there are a number of structures at the local community level and these include clan structures, cultural institutions and then the established Government structures from local council 1 at village level to local council 3 at sub-county level and then local council 5 at the district level. In terms of ABS the challenge is to decide which of these structures would best be appropriate for implementation of the Nagoya Protocol on ABS. The project will thus explore how these structures would work on matters concerning ABS with a view to identifying the one that is most appropriate especially on ensuring compliance to PIC and MAT. The project also will help to establish partnerships among local universities (e.g. Makerere University), governments and communities in Karamoja and the Batwa on developing mechanisms for sharing benefits arising from utilization of traditional knowledge on genetic resources. Currently there are no community protocols on traditional knowledge associated with ABS. ABS has the potential to improve the livelihoods of local people. During the PPG phase local community initiatives that are ABS based and which will help in piloting ABS initiatives at the local community level will be identified and supported by the project. Model contractual clauses to guide implementation of such initiatives will be developed, tested and replicated for use in other parts of the country. Community protocols on ABS will be developed in consultation two IPLCs represented on this project namely Karamoja Women Cultural Group (KWCG) and the United Organization for Batwa Development (UOBDU) in Uganda. Guidelines for mainstreaming gender in ABS will be developed and implemented to ensure that programmes and activities on ABS are gender responsive. This will include clear guidance on how the roles of women and men should be incorporated into ABS agreements. The project will help to develop and operationalize collaborative forest management programs with local communities situated in areas adjacent to seven protected areas located in eastern and South Western Uganda as shown in the below:

No.	Name of PA	Size of PA (ha)	Protection status	Location districts and region
1	Kadam	39,917	Central Forest Reserves (CFRs)	Nakapiripirit district, in the Karamoja region, Eastern Uganda
2	Mount Moroto	48,210	Central Forest Reserves	Moroto district in the Karamoja region, Eastern Uganda
3	Napak	20,316	Central Forest Reserves	Napak district in the Karamoja region, Eastern Uganda
4	Bwindi Impenetrable	33,100	National Park	Kabale, Kisoro and Kanungu district in Western Uganda
5	Mgahinga	3,370	National Park	Kisoro district in Western Uganda
6	Echuya	3,403	Central Forest Reserve	Kisoro and Kabale district in Western Uganda
7	Semuliki	22,000	National Park	Bundibugyo district in Western Uganda
<b>Total ha</b>		<b>170,316</b>		<b>Total no. of districts = 7</b>

Working with NFA, UWA and communities around these PAs, the project will establish collaborative forest management; and put in place ABS arrangements. Regulations on collaborative forest management that are aligned to the Nagoya Protocol on ABS will also be developed and training on its implementation for local governments and local communities will be undertaken by the project.

### Component 4: Information, Education and Awareness on ABS

The component addresses the need to increase public awareness and understanding on the Nagoya Protocol on ABS. Prior to the ratification of the Protocol extensive stakeholder consultations revealed that issues on ABS are not widely known or understood in Uganda, and as a result, Parliament directed NEMA to increase awareness on ABS among policy makers, sectorial institutions, and other stakeholders. Therefore, the project will carry out a suite of activities under this component to enhance understanding of ABS issues and the benefits associated with sharing information on the ABS and implementation of the Nagoya Protocol on ABS. Article 14 of the Nagoya Protocol on ABS provides for the establishment of an Access and Benefit-sharing Clearing-House (ABS-CH) as part of the Clearing House Mechanism (CHM) under Article 18 of the CBD. The ABS-CH serves as means for sharing information related to ABS. It provides access to information made available by each Party to the Protocol relevant to the implementation of the Protocol. The project will focus on training of ABS National Focal Point, CNAs, check points, publishing authorities on how to share information through the ABS-CH established by the CBD. Article 14 requires Parties to share the following information among others through ABS-CH: (a) Permits or their equivalent issued at the time of access as evidence of the decision to grant PIC and of the establishment of MA, (b) Relevant competent authorities of indigenous and local communities; (c) Model contractual clauses; (d) Methods and tools developed to monitor genetic resources; and Codes of conduct and best practices. The training on the use of the ABS-CH will make it possible for Uganda to meet the above reporting in addition to sharing relevant information and documentation on implementation and compliance to the requirements of the Nagoya protocol on ABS especially PIC and MAT. Awareness materials will be developed and disseminated through the ABS-CH. The project will undertake a campaign targeting members of the Ugandan legislature, focused on increasing their knowledge and understanding of ABS issues and the potential benefits for the implementing the Nagoya Protocol on ABS. The project will develop communication, education and public awareness materials (e.g. posters, brochures, manuals, training modules) to educate indigenous and local communities, public and private sector users, local populations and the media on ABS and it will implement a national communication and public awareness campaign strategy to familiarize these and other stakeholders with the benefits of effective ABS. The awareness and public education on Nagoya Protocol on ABS is also in line with the directive from members of Parliament to NEMA of 12 November 2013. A team of experts on ABS will be trained and a roster developed to document expertise on ABS in the country.

#### **1.4 Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTE, LDCE/SCCF and co-financing**

The GEF Project will aim to overcome the obstacles to efficient management of access to genetic resources (GR) and associated traditional knowledge (TK) to promote conservation of biodiversity in Uganda. The Government of Uganda (GOU) is determined to develop GR and associated TK management strategies that are expedite and profitable for all the stakeholders of the regulatory chain. Priority will be awarded to the creation of capacities of all stakeholders to provide them with solid elements for decision making and to negotiate prior informed consent and mutually-agreed terms to empower indigenous and local communities while promoting a regulatory climate that fosters the development of productive projects with national and international environmental benefits.

The project's objective is to consolidate actions to conserve and sustainably use genetic resources and related traditional knowledge in Uganda through the development and implementation of a national policy and legal and institutional framework on ABS in line with the CBD and the Nagoya Protocol. Outcome 1.1 involves developing a national policy, legal and institutional framework to enable the implementation of the Nagoya Protocol. The incremental activities under this component involve supporting the regulatory process to ensure the adoption of an instrument that is efficient and effective in promoting access and benefit sharing and protects associated traditional knowledge; and ensuring that an institutional framework is in place for ABS, including formal coordination mechanisms between institutions to achieve conservation and sustainable use goals. The development of a regulatory framework consistent with ABS will complement the current actions of the Government to promote sustainable development based on the sustainable use of the country's natural capital as well as the transition to the development of bio-economic projects as prioritized by the current administration. The incremental activities under component 2 of the project focus on capacity building, notably: increasing the capacity of new and existing national agencies with ABS competencies and ensuring that national stakeholders are informed about the regulatory and institutional framework for ABS.

The incremental activities under components 3 and 4 include development of communication, education and public awareness materials (e.g. posters, brochures, manuals, training modules) to educate stakeholders, namely indigenous and local communities, public and private sector users, local populations and the media; establishing a national communication and public awareness campaign strategy to familiarize stakeholders with ABS, bioprospecting and value chains; developing a model ABS agreement(s) to provide a basis for negotiating fair and equitable benefit-sharing; and a catalogue of Traditional Knowledge associated with GR. The Project also seeks to create national capacities that will

empower GR Suppliers to be users as well of such resources and the TK to obtain benefits that are shared within their own communities.

### **1.5 Global environmental benefits (GEFTF)**

The project will contribute significantly towards conservation and sustainable management of Uganda's biological diversity, which ranks among the top ten of all countries in the world, and it will promote the conservation of traditional knowledge for the use and conservation of these resources. Uganda's biodiversity is a strategic resource for the country because its genetic resources have a high potential for application in industries such as cosmetics, therapeutics, biomedicine, and agro-industry, among others. The project will help Uganda to establish a national legal framework that promotes and fosters prior informed consent to access and use of GR and associated traditional knowledge, while strengthening opportunities for fair and equitable sharing of profits arising from their utilization, based on mutually agreed terms. This will make it possible to develop incentives for conservation of biological diversity and sustainable use of its components, which will contribute to efforts by the international community to halt the loss of biodiversity and avoid misappropriation of GR and associated TK.

The project will contribute towards the achievement of a number of CBD Aichi Targets, namely: Target 1, by increasing the awareness of people in Uganda about the values of biodiversity and the steps they can take to conserve and use it sustainably; Target 12, by preventing the extinction and/or improving the conservation status of threatened species; Target 13, by maintaining the genetic diversity of cultivated plants and of wild relatives, including other socio-economically as well as culturally valuable species, and by developing and implementing strategies for minimizing genetic erosion and safeguarding their genetic diversity; and Target 18, by better involving and respecting the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity.

### **1.6 Innovation, sustainability and potential for scaling up**

The project will put in place measures to harmonize in Uganda the implementation of ABS under the Nagoya Protocol and the ABS under the International Treaty on Plant Genetic Resources for Food and Agriculture. The project also will work with the private sector, districts and lower local governments to establish a private-public partnership on ABS, the first of its kind in Uganda, and it will establish the country's first framework for sustainable harvesting of sandalwood by the private sector. To support financial sustainability, the project will work to integrate activities on ABS into sector budgets during the government's Medium Term Expenditure Framework (MTEF) planning processes, and it will liaise and advocate with the Ministry of Finance, Planning and Economic Development for sustained funding of ABS related activities. To support institutional sustainability, the project will seek to have additional institutions (apart from UNCST) designated as National Competent Authorities for the Nagoya Protocol, thereby focusing more institutional resources on ABS-related activities and oversight. Under Component 3, the project will establish an effective working model for ABS at the community level that can be replicated in other parts of the country, as there are many other native plant species that are being exploited in ways similar to that of sandalwood. For example, lessons learned from this project will be relevant to the management of *Prunus africana* in Kalinzu Forest reserve in western Uganda. The project will also establish and operationalise Community Forest Management (CFM) for the pilot CFRs, which will constitute the first CFM agreements for the Karamoja region.

**2. Stakeholders.** Will project design include the participation of relevant stakeholders from civil society organizations (yes  /no ) and indigenous peoples (yes  /no )? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

The key project stakeholders are Government agencies involved in ABS issues, including NEMA, UWA, NARO-PGRC, NFA, UNCST, Ministry of Finance, Planning and Economic Development, as well as representatives of Indigenous Peoples and Local Communities (IPLCs), specifically the United Organization for Batwa Development in Uganda (UOBDU) and the Karamoja Women Cultural Group/Tunga Rural Cross Border Development Initiative. NEMA will take the lead in incorporating input from stakeholders during the design of the project.



**Table 1: Roles and responsibilities of the key stakeholders**

Name of Stakeholder	Role in the Project
National Environment Management Authority (NEMA)	NEMA will be responsible for overall coordination of project preparation and implementation, as well as taking the lead role in designing the project activities for capacity building programmes (including a training strategy for lead agencies and IPLCs on negotiation skills related to benefit sharing), an awareness-raising strategy, and on planning for the upgrading of facilities of existing depositories. NEMA also will provide information and guidance from COP decisions on ABS, including guidance on issues relating to ABS under the CBD and the national legislations on ABS.
Uganda National Council for Science and Technology (UNCST)	As Uganda’s National Competent Authority (NCA) on ABS issues, UNCST will provide guidance and information on implementation of national legislation on ABS, as well as assisting in the design of project activities regarding biorepository facilities (in liaison with lead agencies and the ABS NFP); annual national forums for ABS; the organization of capacity building, training and awareness activities; and site monitoring, audits and inspection to ensure compliance with PIC and MAT and other terms and conditions in the accessory agreements
National Agricultural Research Organization (NARO-PGRC)	NARO-PGRC is the National Focal Point for ITPGRA and thus will assist on matters concerning the Multilateral System of Benefit Sharing under the treaty and how this relates to the Nagoya Protocol on ABS, and in documenting plant genetic resources relevant for ABS.
National Forestry Authority (NFA)	NFA will provide guidance on PIC for genetic resources inside Central Forest Reserves and on collaborative natural resources management and benefit sharing arrangements with IPLCs adjacent to central forest reserves.
Uganda Wildlife Authority (UWA)	UWA will provide guidance on PIC for genetic resources inside wildlife protected areas and on collaborative natural resources management and benefit sharing arrangements with IPLCs adjacent to wildlife protected areas
Ministry of Finance, Planning and Economic Development (MoFPED)	MoFPED is the GEF Operational Focal Point. Its major role during the project design will be to assist in the development of a resource mobilization strategy for implementation of the ABS legislation in the country and the Nagoya protocol on ABS
Ministry of Wildlife, Tourism and Antiquities (MTWA)	MTWA, which is the CITES management authority in Uganda, will provide technical guidance on matters concerning CITES and issuance of permits for species regulated under CITES
National Chemotherapeutic Research Institute (NCRI)	NCRI will provide technical inputs on existing research on natural products derived from genetic resources (with a focus on sandalwood)
Local governments (Moroto and Nakapiripirit)	Local governments will be involved in designing the project strategy regarding PIC for genetic resources outside protected areas, as well as designing project activities related to enforcement of ABS national legislation, awareness raising, and monitoring the status of sandalwood
Makerere University	The university will design training activities on taxonomy and the management of samples and specimens and partner with IPLC in research that will mainly focus on documenting and validating traditional knowledge associated food and medicines from genetic resources. The university will also develop training programme on ABS issues including PIC and MAT to build national capacity for effective implementation of the Nagoya protocol on ABS.
GIZ/ABS Initiative	The multi-donor ABS Capacity Development Initiative, hosted by the German Federal Ministry for Development and Economic Cooperation, and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, was asked by its donors to include Uganda in its list of partner countries for the current project phase from April 2015 to March 2018. The Initiative undertook a country analysis and a country visit to establish an ABS baseline in July 2015 in consultation with NEMA and other actors. Based on the outcomes, it was decided to enter into cooperation with Uganda as partner country. During a second country visit, a draft work plan for a community-based project focussing on the development of an ABS-compliant value chain for <i>Prunus africana</i> was developed. Furthermore, an Information and Technology (IT)-based-ABS application and monitoring system should be build up in close cooperation with the activities under this GEF proposal. The ABS Initiative contributed to the development of the GEF proposal and aligns its ABS activities in Uganda with the proposed activities under the GEF proposal. The main activities funded by the ABS Initiative and implemented in close cooperation with NEMA and other actors in Uganda will be: a) development of an IT-based application and monitoring system based on the systems available at Uganda National Council for Science and Technology (UNCST) and b) making the existing <i>Prunus africana</i> value chain ABS compliant aiming at the negotiation of MAT that bring more benefits back to the local communities. Other activities relate to awareness raising and training on ABS with focus on national associations of traditional healers.
United Organization for Batwa Development in Uganda (UOBDU)	UOBDU will participate in designing project activities related to ensuring that the rights of the Batwa are taken into account during implementation of the Nagoya Protocol on ABS, including documenting issues of concern to the Batwa on ABS and building capacity of the Batwa to participate in PIC and MAT processes. UOBDU has worked for a number of years to protect the rights of the Batwa, who

	primarily lived within forest reserves in south western Uganda before those forest reserves were designated into the Bwindi Impenetrable Forest and Mghinga Gorilla National Parks. As a result of this experience, UOBDU is now the leading indigenous people's association in the country and has worked on building the capacities of other indigenous people's associations, including the Karamoja Women Cultural Group. UOBDU will therefore bring a wealth of experience to the project on how to manage issues of access to forest resources.
Karamoja Women Cultural Group	The Karamoja Women Cultural Group / Tunga Rural Cross Border Development Initiative is a CBO that works for and promotes IPLC issues on ABS, the conservation and sustainable use of biodiversity in the Karamoja region, and fights for rights of the indigenous Karamojongs. The Karamoja Women Cultural Group will assist the project in mobilizing women's groups and youth, linking the project to cultural leaders and elders, participating in the documentation of traditional knowledge associated with the sandalwood in Karamoja, and planning for project activities to develop community protocols for monitoring ABS and training and awareness raising on ABS for local communities on ABS.

**3. Gender Equality and Women's Empowerment.** Are issues on gender equality and women's empowerment taken into account? (yes  /no ). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

Women in Uganda play a crucial role in the use and conservation of genetic resources, in particular due to their dominant role in managing household food resources and consumption as well as their involvement in traditional medicinal practices. Because women in the country tend to have less secure land-tenure rights and educational levels, the project will ensure that activities around Prior Informed Consent (PIC), associated TK, and access negotiations make a special effort to reach out to and enable the participation of women, and the project will utilize equity criteria in contracts and benefit agreements. All stakeholder groups, including men, women, and youth, will be targeted for awareness raising and training on ABS related issues, with a focus on how they can effectively negotiate benefit sharing when a genetic resource under their custodianship is being accessed. Attention will be given to gender issues to ensure that roles and responsibilities between women and men on ABS are clearly spelled out and agreed upon. For genetic resources that have been accessed, a system will be developed with relevant institutions for tracking and reporting on compliance to conditions in the MAT both within and outside Uganda, including proper documentation on the origin of genetic resources.

Targets for involving women in project activities will be included in the Results Framework of the project. Women's representation will be targeted in: i) the technical working group; ii) training sessions and workshops; and iii) any meetings that may be convened during the implementation of the project. Project activities will be informed by socio-economic assessments that will include gender research. Gender will be considered when public awareness campaigns are designed and information materials are disseminated, and gender sensitivity will be incorporated into training topics so that: i) female participants are empowered to participate meaningfully in the trainings; and ii) all participants are made aware of their responsibility to respect the views of all of their colleagues during training workshops. Trainers will be required to have the skills and experience necessary to plan and facilitate gender-sensitive training. The project manager will be responsible for the monitoring and review of gender sensitivity in the training workshops and the application of gender-disaggregated indicators. To ensure that the progress of gender mainstreaming can be monitored throughout the project, gender disaggregated targets will be developed and used to monitor indicators. In addition to gender awareness, the project will promote the requirements of other disadvantaged and more vulnerable groups including the elderly, children and the differently disabled persons.

**4 Risks.** Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable).

**Table 2: Potential Risks**

Identified Risks	Risk Assessment	Description of Risks	Mitigation Measures
Sustainability of project interventions after the project has ended	Medium	Many development and conservation projects in Uganda do not sustain project activities or achievements beyond the end of the project, often due to funding shortfalls	The project will work to integrate activities on ABS into sector budgets during the government's Medium Term Expenditure Framework (MTEF) planning processes, and it will liaise and advocate with the Ministry of Finance, Planning and Economic Development for sustained funding of ABS programmes and activities.



Lack of support from stakeholders	Low	The lack of harmonization of policies and legal frameworks on ABS has minimized the interest in and support of some institutional stakeholders for ABS issues	The project will conduct extensive consultation and advocacy campaigns with stakeholders to create awareness and political will to cope with policies focused on mitigating bureaucratic systems in place today to enhance implementation of ABS in the country
Difficulties in mobilizing local communities to fully participate in ABS activities	Low	Lack of awareness on the potential benefits of ABS by local communities, and a lack of any benefit sharing arrangement with the private sector, has limited community interest in ABS.	The project will work with district local government and the local institutions at the lower levels to mobilize local communities. Awareness and knowledge creation on benefits of ABS for local communities will be undertaken during the implementation of the project
Local communities not well organized	Low	Local communities are the custodian of genetic resources but are often not well organized and hence vulnerable to manipulation by the private sector	The project will use community based organizations like the Karamoja Women Cultural Group and United Organization for Batwa Development in Uganda to assist local communities in setting up appropriate groups for effective participation in the project

**5. Coordination.** Outline the coordination with other relevant GEF-financed and other initiatives.

Implementation of the proposed project will be carried out in coordination with, and where relevant, building on the results of on-going GEF supported projects, which are listed below:

- The UNDP-GEF project “Conservation and Sustainable Use of the Threatened Savanna Woodland in the Kidepo Critical Landscape (KCL) in North Eastern Uganda” (2013-2017): The goal of this project is to “conserve the biodiversity and ecosystem values of the KCL to provide sustainable benefit flows at local, national and global levels through enhanced operational capacity and functional landscape planning approaches”. The project is designed to protect the biodiversity of the Kidepo Critical Landscape in North Eastern Uganda from existing and emerging threats by strengthening PA management and integrating it into the wider landscape. The KCL project will provide valuable experiences and lessons learned on the management of biodiversity outside protected areas, support to community-based initiatives for conservation and sustainable use of biodiversity, value addition to biodiversity-based products, protection of endangered species targeted for trade, and how to establish and operate district coordination mechanisms. Karenga is within the Kidepo Critical landscape and the exact ways of how the two projects will coordinate their work in Karenga forest reserve will be determined at the PPG stage
- The UNEP-GEF global project “Support to GEF Eligible Parties (LDCs & SIDs) for the Revision of the NBSAPs and Development of Fifth National Report to the CBD - Phase 1” (2012-2016): The objective of this project in Uganda has been to enable Uganda to revise its NBSAP (first developed in 2002) and to develop and submit its 5<sup>th</sup> national report to the CBD. The revised NBSAP 2 and the 5<sup>th</sup> national report have been submitted to the CBD Secretariat and can be viewed at: <https://www.cbd.int/countries/?country=ug> and [www.cbd.int/reports/nr5/](http://www.cbd.int/reports/nr5/) respectively. The revised and updated NBSAP 2 addresses ABS issues, and the development of this proposed project takes into account the provisions of the NBSAP 2 on ABS.
- Global support for ratification and entry into force of the Nagoya Protocol on ABS (2013-2016): Through this project, Uganda ratified the Nagoya Protocol on 25 June 2014. In addition to supporting the ratification process, additional activities carried out under the project were undertaking an analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) regarding policies & laws relevant to ABS, with a focus on national ABS regulations. The information generated from the SWOT analysis has been used in the development of the proposed project.
- The Biodiversity Finance Initiative (BIOFIN) launched by UNDP in 2012 is a new global partnership seeking to address global biodiversity finance challenges by assisting developing countries in identifying, accessing, combining and sequencing sources of biodiversity funding to meet their specific needs. The key outcome of the project in Uganda will be a resource mobilization plan for implementing the NBSAP II, which will include resources for ABS and development of new financing approaches such as public private partnerships.

**6. Consistency with National Priorities.** Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes  /no  ). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

The proposed project is fully in line with the country’s national strategies and plans. The Government of Uganda has prioritized capacity building for effective implementation of the Nagoya Protocol at the national level. Uganda’s

National Vision 2040 and its National Development Plan (NDPII 2015/16 – 2019/2020), as well as the National Biodiversity Strategy and Action Plan (NBSAPII), all recognize the need to strengthen value addition of environmental and natural resources, including biodiversity, as a priority. The proposed project activities to improve livelihoods for local communities through ABS complies with and supports the National Vision 2040, NDPII, NBSAPII and the Sustainable Development Goals, especially SDGs 1, 2, 5, 8, 12, 13 and 15

Uganda has recently completed revision of its National Biodiversity Strategy and Action Plan 2015-2025, which is aligned to the Strategic Plan for Biodiversity 2011-2020 and national targets developed within the framework of the Aichi targets. Uganda has achieved one of these targets - to accede to the Nagoya Protocol on ABS by 2015 (Uganda acceded to the Protocol on 25th June 2014). Other national targets on ABS in the NBSAP have been developed in line with relevant Aichi targets. These targets include:

- a) Review the ABS Regulations and incorporate relevant elements of the Nagoya Protocol;
- b) Promote and regulate bio-prospecting and bio-trade activities for the benefit of the population;
- c) Put in place mechanisms for sharing the benefits from access to plant genetic resources in the country;
- d) Document indigenous knowledge, innovations and practices in plant genetic resources;
- e) Initiate and support community based plant genetic resources management initiatives in various parts of the country;
- f) Document traditional knowledge and practices that promote conservation and sustainable use of biodiversity e.g. in herbal medicine;
- g) Develop access and benefit sharing arrangements with indigenous and local communities;
- h) Conduct awareness raising on the role of taxonomy in biodiversity conservation in public and private institutions;
- i) Improve taxonomic infrastructure and tools to provide adequate taxonomic information;
- j) Undertake human resource capacity development in taxonomy at all levels;
- k) Develop taxonomic knowledge bases of biodiversity in formats that are accessible to end users;
- l) Undertake taxonomic research to improve knowledge of little known taxa (especially those which may have commercial value)

**7. Knowledge Management.** Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

This project has identified increased public awareness as an important element of the strategy to enhance implementation of the Nagoya Protocol on ABS. To this effect, the ABS-CH will be developed and operationalized to create platforms for information sharing and knowledge management. Targeted communication and outreach to Parliamentarians, researchers, IPLCs, and representatives from ABS line ministries and agencies tasked with managing the permitting process and access to biological and genetic resources will be conducted with the explicit purpose of building ABS capacity, as part of a broader objective to develop an ABS framework. Stakeholder public awareness, outreach and participation at the country level will include the participation of technical staff in workshops, training, and tools development; the facilitation of local project events and processes; the provision of data sources and technical expertise relevant for bio-prospecting and broader ABS policy formulation; the preparation and submission of ratification instruments; and the institutionalization of project results and lessons learned to allow for upscaling, replication and sustainability. The project will make it possible to demonstrate ABS as an innovative financial mechanism. Lessons learnt will be documented and shared nationally and globally. All on-going programmes and projects in the project area will be documented and networking will be established to avoid duplication but to promote synergies.


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

**A. RECORD OF ENDORSEMENT<sup>17</sup> 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 SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Partick Ocailap	GEF OFP	MINISTRY OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT	29 <sup>TH</sup> SEPTEMBER 2017

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

This request has been prepared in accordance with GEF policies<sup>18</sup> and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Kelly West, Senior Programme Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment		October 3, 2017	Jane Gubare Nimpamya DEPI, UNEP Nairobi, Kenya	+254 207 624 629 And +254 718436427	<a href="mailto:Jane.Nimpamya@unep.org">Jane.Nimpamya@unep.org</a>

<sup>17</sup> For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

<sup>18</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCE, and SCCF

## Annex 1: Taxonomic Information to support Nagoya Protocol

**Table 1: Required information on taxonomic priority to complement implementation of the Nagoya Protocol**

Institution	Priority taxa
Department of Plant Science, Microbiology and Biotechnology (Makerere University) Sciences (Makerere – botanical unit)	Higher plants, Medicinal and nutritious plants
Department of Zoology (Makerere University) Biological Sciences (Makerere – zoological unit)	Invertebrates (e.g. insects, annelids, nematodes) vertebrates (e.g. fish, birds, amphibians, reptiles and mammals)
Department of Forestry, Biodiversity and Tourism	Trees, Forest pest, Bees, Pathology,
Fisheries Training Institute	Fish and other aquatic organisms such as mollusks, zooplankton and aquatic insects
Ministry of Tourism, Wildlife and Antiquities Uganda Wildlife Authority	CITES species lists; list of animals in the National Parks and wildlife reserves (e.g. as mammals, antelopes and birds).
Ministry of Water and Environment (National Forestry Authority)	All taxa
National Forestry Resources Research Institute	Higher plants (trees)
National Agricultural Research Laboratories Kawanda and Phyto-Sanitary Division, MAAIF	Arthropod pests (e.g. beetles, grasshoppers), nematodes.
National Fisheries Resources Research Institute	Fish, zooplankton, benthic macro-invertebrates (e.g. bivalves, snails, aquatic insects and annelids).
National Livestock resources Research Institute	Ticks and tsetse flies
NEMA	Taxa for bio-monitoring ecosystem health e.g. insects, zooplankton and fish
Uganda Museum	Fossils, paleontological records, insects, fish, reptiles, amphibians, birds and mammals
Uganda Virus Research Institute	Viruses
Uganda Wildlife Education Center	Mammals, reptiles, amphibians, birds and plants
Vector Control (Ministry of Health)	Vectors e.g. mosquitoes, snails, black flies
Makerere University – Wildlife and Animal Resources Management (WARM)	Invertebrates (e.g. parasites, ticks) and Vertebrates (e.g. fish, mammals, birds)
Wildlife Conservation Society (WSC)	Mammals (e.g. the great apes), birds, reptiles, amphibians, and plants

## Annex 2: List of medicinal plants used by the Batwa.

No	FAMILY	SCIENTIFIC NAME	LOCAL NAME
1	Anacardiaceae	<i>Rhus vulgaris</i> Meikle	Omukanja
2	Balsaminaceae	<i>Impatiens</i> sp.	Entungwabaishaija
3	Caesalpinaceae	<i>Cassia didymobotrya</i> Fresen.	Omugabagaba
4	Caesalpinaceae	<i>Cassia occidentalis</i> L.	Omwitanjoka
5	Canellaceae	<i>Warburgia ugandensis</i> Sprague	Omwiha
6	Euphorbiaceae	<i>Flueggea virosa</i> (Willd.) Voigt	Omukarara
7	Euphorbiaceae	<i>Tragia brevipes</i> Pax.	Engenyeni
8	Mimosaceae	<i>Acacia sieberiana</i> Scheele	Omunyinya
9	Mimosaceae	<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	Omuremanjojo
10	Myricaceae	<i>Macrotyloma axillare</i> (E.Mey.) Verdc.	Akaihabukuru
11	Myricaceae	<i>Myrica salicifolia</i> Hochst. ex A.Rich.	Omujeje
12	Palmae	<i>Phoenix reclinata</i> Jacq.	Omukindo
13	Polygonaceae	<i>Hallea rubrostipulata</i> (K.Schum.) J.F. Leroy	Omuziiko
14	Polygonaceae	<i>Rumex abyssinicus</i> Jacq.	Omufumbagyesi
15	Polygonaceae.	<i>Tarenna graveolens</i> (S.Moore) Bremek	Omunyamazi
16	Rubiaceae	<i>Rytiginia</i> sp.	Nyakibazi
17	Rutaceae	<i>Citropsis articulata</i> Swingle & Kellerman	Omuboro
18	Tiliaceae	<i>Grewia similis</i> K. Schum.	Omukarara
19	Urticaceae	<i>Urtica massaica</i> Mildbr.	Engenyeni