PROJECT IDENTIFICATION FORM (PIF) [1]

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Conserving, Enhancing and Managing Carbon Stocks and Biodiversity while Promoting Sustainable Development in The Chernobyl Exclusion Zone through the Establishment of a Research and Environmental Protection Centre and Protected Area		
Country(ies):	Ukraine	GEF Project ID:[2]	4634
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	785
Other Executing Partner(s):	Ministry of Ecology and Natural Resources (MENR), Ministry of Emergeny of Ukraine and ChEZ Administration	Submission Date:	2011-09-20
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	48
Name of parent program (if applicable): ➢ For SFM/REDD+ ☐	n/a	Agency Fee ($):	486,395

A. FOCAL AREA STRATEGY FRAMEWORK[3]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
(select) BD-1	Outcome 1.1: Improved management effectiveness of existing and new protected areas	Output 1.1: New protected areas (number) and coverage (hectares) of unprotected ecosystems.	GEFTF	825,076	5,150,000
CCM-5 (select)	Outcome 5.1: Good management practices in LULUCF adopted both within the forest land and in the wider landscape	Output 5.2: Forests and non-forest lands under good management practices	GEFTF	2,846,545	7,000,000
(select) LD-2	Outcome 2.1: An enhanced enabling environment within the forest sector in drylands	Output 2.1.1: Country level policy, legal and regulatory frameworks that integrate SFM principles developed	GEFTF	949,136	2,150,000
(select) (select)			(select)		
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(select) (select)			(select)		
(select) (select)	Others		(select)		
		Sub-Total		4,620,757	14,300,000
		Project Management Cost[4]	GEFTF	**243,198**	700,000
		Total Project Cost		4,863,955	15,000,000

B. PROJECT FRAMEWORK

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.
[4] GEF will finance management cost that is solely linked to GEF financing of the project.

Project Objective: Conserve, Enhance and Manage Carbon Stocks and Biodiversity in Forest and non-Forest Lands and Promote Sustainable Development in The Chernobyl Exclusion Zone through the Establishment of a Research and Environmental Protection Centre and associated Protected Area within and around the current Chernobyl Exclusion Zone (ChEZ), in Ukraine						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Indicative Grant Amount ($)**	**Indicative Cofinancing ($)**
1. Enhanced management of forest and non-forest lands, biodiversity conservation and sustainable development in the ChEZ through the establishment of a "Research and Environmental Protection Centre" - apportioned component funds allocation by focal area: BD 18%, CC 62% and LD 20%	TA	1.1 Conservation and sustainable management of forest and wetlands habitats as well as biodiversity and other natural resources and associated carbon benefits in the ChEZ are enhanced through the establishment of a "Research and Environmental Protection Centre" 1.2 Comprehensive research and field experiments programme is designed (with GEF funds) and launched (with co-funding) 1.3 The status and potential in terms of Ecosystems Services values, enhancement of carbon benefits and meeting LULUCF targets in the ChEZ is assessed	1.1.1 Essential networking, surveys and laboratory equipment required to support the new Centre's research programme is in place, building upon existing infrastructure for the Centre, within and outside the ChEZ 1.1.2 The required professional capacity to manage the Centre and operate the new equipment (ref. 1.1.1) is developed 1.2.1 Comprehensive Assessment of the current state and trends of natural ecosystems in the ChEZ 1.2.2 Assessment of the impact of radioactivity-related and non-radioactivity-related factors on selected habitats, species and populations of global importance 1.2.3 Targeted Radio-ecological and sustainable forest and wetlands management research 1.3.1 Assessment of the status and pattern of rehabilitation processes of Forest and Wetland habitats, and evaluation of their role in terms of CC mitigation and meeting LULUCF targets in line with EU policy and relevant global conventions 1.3.2 Study the ongoing	GEFTF	2,020,757	5,150,000

			natural succession processes in the various habitat types affected by radiation in the ChEZ 1.3.3 Develop a fire monitoring system within the ChEZ 1.3.4 Study the development of appropriate sustainable habitat management measures for the rehabilitation of Forests, Wetlands and Marshlands contributing to the conservation and enhancement of carbon stocks and meeting LULUCF targets			
2. Establishment and management of a full Protected Area Network for the protection and sustainable management of carbon stocks in large areas of Forest and non forest lands, including wetlands and other habitat types within and around the current ChEZ - apportioned component funds allocation by focal area: BD 18%, CC 62% and LD 20%	TA	2.1 The ChEZ is upgraded to the status of Protected Area network, to enhance the conservation and management of carbon stocks and secure the long-term basis for appropriate management, monitoring and research for large areas of Forests, wetlands and other habitat types	2.1.1 Comprehensive ecological and socio-economic surveys are conducted 2.1.2 A Protected Area Zoning Plan is developed, defining areas with various degrees of carbon stocks enhancement and conservation potential, biodiversity conservation priority and long-term sustainable development potential, as the basis for Protected Area design and management 2.1.3 A comprehensive PA Management Plan is developed in a participatory manner on the basis of results of (2.1.1) and (2.1.2) 2.1.4 A Protected Area management structure, an initial core team of staff, equipment and associated professional capacity is developed 2.1.5 A Collaborative trans-boundary international programme on radio-ecological research, monitoring and management of carbon	GEFTF	1,900,000	5,150,000

			stocks in forest and non-forest lands, and protected areas management is initiated with the Polessky State Radiation Ecological Reserve in the neighbouring Republic of Belarus			
3. Learning, field testing, and dissemination - apportioned component funds allocation by focal area: BD 18%, CC 62% and LD 20%	TA	3.1 A set of Lessons Learned and Practical Recommendations on habitat rehabilitation, carbon stocks management and biodiversity conservation emerged from prior and ongoing work in the ChEZ, and applicable to similar situations, is developed and published 3.2 The results of (3.1) are widely disseminated nationally and internationally	3.1.1 A set of general principles, methodologies and technologies are developed and –where applicable– also field-tested for the short and long-term management of radioactively contaminated areas 3.1.2 The potential approaches for the radiation-safe, environmentally- and health- friendly sustainable use of selected natural resources within and around the ChEZ is assessed, in order to enhance the management of carbon stocks while promoting socio-economic development in the surrounding areas 3.1.3 A set of training packages is developed and delivered to an initial set of Trainers from Ukraine and other countries, focusing on preparedness, natural habitats rehabilitation, carbon stocks monitoring and management, and biodiversity conservation practices and methodologies related to nuclear accidents 3.2.1 A permanent collaboration programme is established between the "Research and Environmental Protection Centre" and relevant national and international institutions 3.2.2 The results and publication emerging from (3.1) are widely	GEFTF	700,000	4,000,000

			disseminated and public awareness is raised through a variety of means as defined in the project Communication Strategy to be defined in the PPG phase 3.2.3 An Education and Awareness Center on the ChEZ is established in the National Nature Park "Golosiyivskiy" in Kyiv			
	(select)			(select)		
	(select)			(select)		
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	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
				Sub-Total		4,620,757	14,300,000
				Project Management Cost[5]	GEFTF	243,198	700,000
				Total Project Costs		4,863,955	15,000,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
National Government	Government of Ukraine, Ministry of Ecology and Natural Resources (MENR), Ministry of Emergency, National Academy of Sciences of Ukraine, State Committee for Forests, ChEZ Administration, Local Municipal Authorities, Institute of Nuclear Research, Institute of Forestry and Landscape-Park Management National University of Life and Environmental Sciences of Ukraine, and others	In-kind	10,700,000
Bilateral Aid Agency (ies)	To be defined in PPG and tentatively include i.e.: Germany, Switzerland, Nordic countries, Japan, Canada, the EU, the EBRD, and others	Unknown at this stage	3,000,000
GEF Agency	UNEP & partners These include i.e. UNEP DEPI/ESE Unit, DEPI/TEU unit, DEPI/GEF-BD/LD unit, UN WILDFIRE Network, UNU, UNEP-WCMC, UNEP Regional Office for Europe, IAEA, UNSCEAR, WHO, UNICEF, and others	In-kind	300,000

[5] Same as footnote #3.

CSO	WWF, IUCN, BirdLife International, Wetlands International, USFWS, University of Yale (USA) and University of Freiburg (Germany) (both on forest fires management), University of La Tuscia (Italy), Dept. Crop Plant Biology, University of Pisa (Italy) and others	In-kind	700,000
Others	Polessky State Radiation Ecological Reserve in the neighbouring Republic of Belarus	Unknown at this stage	300,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Cofinancing			15,000,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
UNEP	GEF TF	Biodiversity	Ukraine	868,500	86,850	955,350
UNEP	GEF TF	Climate Change	Ukraine	2,996,364	299,636	3,296,000
UNEP	GEF TF	Land Degradation	Ukraine	999,091	99,909	1,099,000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				4,863,955	486,395	5,350,350

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the GEF focal area/LDCF/SCCF strategies:

The project supports the Goals and Objectives of several GEF Focal Areas (FAs): Biodiversity, Land Degradation and Climate Change. In particular, the projects will contribute to the achievement of the following specific FA Objectives and associated Outcomes: *BD 1 "Improve Sustainability of Protected Area Systems"*, Outcome 1.1: *"Improved management effectiveness of existing and new protected areas"*, through the establishment of one of the largest new Protected Areas in the region and the enhanced capacity to monitor the impact of the Chernobyl NPP accident on the several globally important populations of rare and endangered species, as well as preservation of some critical sites along the Africa-Eurasian Flyways (bird migration routes); CCM-5: LU-LULUCF: *"Promote conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry"*, Outcome 5.1: *"Good management practices in LULUCF adopted both within the forest land and in the wider landscape"* through the establishment of monitoring and sustainable management systems for the conservation, enhancement and management of carbon stocks in large areas of Forests and non-forest lands (including wetlands and peatlands). This will include measures to mitigate the risk of forest fires (and danger of consequent radio-active fall-out) within the Chernobyl Exclusion Zone; and LD-3: *"Integrated Landscape Management: Reduce pressures on natural resources from competing land uses in the wider landscape"*, Outcome 3.2: *"Good management practices in the wider landscape demonstrated and adopted by relevant economic sectors"*, through the formulation and initial implementation of an integrated management plan for the ChEZ area. As an example and with respect to the CC focal area, the table below provides additional clarification on what CCM5 achievements are envisaged at PIF submission:

CCM 5 / LULUCF Tracking Tools - Outlook at PIF stage – Chernobyl Project

Objective 5: LULUCF	**Targets at CEO Endorsement**	
Area of activity directly resulting from the project	***Chernobyl Project - Expected accomplishments as envisaged at PIF submission stage***	**Notes**
Conservation and enhancement of carbon in forests, including agroforestry	Yes – target in ha to be determined at PPG	ha
Conservation and enhancement of carbon in non-forest lands, including peat land	Yes – target in ha to be determined at PPG	ha
Avoided deforestation and forest degradation	Yes – target in ha to be determined at PPG	ha
Afforestation/reforestation	Yes – target in ha to be determined at PPG	ha
Good management practices developed and adopted	2: developing prescriptions for sustainable management	0: not an objective/component 1: no action 2: developing prescriptions for sustainable management 3: development of national standards for certification 4: some of area in project certified 5: over 80% of area in project certified

Carbon stock monitoring system established	2: mapping of forests and other land areas 3: compilation and analysis of carbon stock information 4: implementation of science based inventory/monitoring system 5: monitoring information database publicly available	0: not an objective/component 1: no action 2: mapping of forests and other land areas 3: compilation and analysis of carbon stock information 4: implementation of science based inventory/monitoring system 5: monitoring information database publicly available
Lifetime direct GHG emission avoided	Yes – target to be determined at PPG	tonnes CO2eq
Lifetime indirect GHG emission avoided	Yes – target to be determined at PPG	tonnes CO2eq
Lifetime direct carbon sequestration	Possible – if yes, target to be determined at PPG	tonnes CO2eq
Lifetime indirect carbon sequestration	Possible – if yes, target to be determined at PPG	tonnes CO2eq

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

n/a

A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

Ukraine is a signatory to all three main relevant conventions pertaining to the activities envisaged in this project: CBD (1997), UNCCD (2002) and UNFCCC (1997). The objectives of this project are fully consistent with the country's obligations under the above conventions.

The main goals identified in the NBSAP* (2010) and all supported by the present project include: (a) conservation, improvement and restoration of natural and disturbed ecosystems, landscape components, and habitats of some species; (b) promoting a transition to sustainable, well-balanced use of natural resources; (c) minimizing any indirect negative influences on ecosystems, their components and ecological complexes; (d) strengthening public awareness, improving availability of information on biodiversity, involving more of local population in conservation activities; (e) defining and strengthening responsibility for biodiversity conservation, especially the responsibilities of institutions, organizations, land users, companies and individuals that use or affect natural resources.

To achieve these goals, several measures are identified. These include the development of national ecological networks (a system of "green corridors") as a constituent part of the EECONET (European Econet). Ukraine's National EcoNetwork Formation Programme for the years 2000-2015 (Law of Ukraine, 2000) was developed in the context of requirements of CBD, Bern Convention and related to the further refinement and development of the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) in respect of the development of a Pan-European EcoNetwork. The principal objective of the Programme is to increase the country's area under natural landscapes to a level sufficient for the preservation of their diversity close to their initial natural condition and the development of the territorially-integrated system. This system would be built to ensure the possibility for species of plants and animals to use natural migration and propagation, which would ensure the preservation of natural ecosystems, species and populations of flora and fauna.

Ukraine has adopted several other nature conservation programs and legal documents directed at biodiversity conservation and sustainable land management. Ukraine's commitments under several of these programmes will be directly supported by the present project, including i.e. Econet (2000), the "Forests of Ukraine" Programme (2002), Law on Econet (2004), Law on Red Data Book (2002), the series of Ministry of Ecology and Natural Resources (MENR) Decrees on limits of use of animal and plant species, Decree of the Cabinet of the Ministers on the Strategy of Sustainable Development of the Carpathians (2006), Resolution of the Cabinet of the Ministers on the Cadastre of Plant Species (2006), Decree of the Cabinet of the Ministers on the Concept of the State Programme on Protected Areas to the Year 2020 (2006), and the more recent "Law on Protected Areas of Ukraine". Ukraine also ratified a number of selected treaties in the field of biodiversity conservation European Landscape Convention (2005), Convention on Migratory Species (CMS, 1999), African-Eurasian Waterbird Agreement (AEWA, 2002) and the Framework Convention on the Protection and Sustainable Development of the Carpathians (2004). Ukraine is a member of the Emerald Network and participating in the Joint Programme entitled: "*Support for the implementation of the Convention on biological diversity programme of work on protected areas in the EU Neighbourhood policy East area and Russia: extension of the implementation of the EU's NATURA 2000 principles through the Emerald Network*". The project provides assistance to seven target countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova, the Russian Federation and Ukraine) in assessing their natural resources, in identifying species and habitats to protect and in selecting the potential sites suitable for ensuring the long-term survival of the species protected by the Bern Convention. The project overall goal is to protect biodiversity in the seven ENPI East countries and more precisely to implement the Convention on Biological Diversity and its programme of work on protected areas, as well as the EU's principles and the Bern Convention concerning the protection of habitats and species. The present project will provide a significant contribution to this element of the NBSAP through the establishment of a vast and trans-boundary protected area and through building national capacity for the participatory development of PA Management Plans, for replication in other parts of the country.

Ukraine signed the UN Framework Convention for Climate Change (UNFCCC) in 1992 and ratified it in 1997. Ukraine also ratified the Kyoto Protocol in 2004 as an Annex I party (latest National Report under Kyoto protocol dated 2006). Ukraine has a total forest cover of 10,5 million ha (~ 17 % of the territory). The project will directly contribute to the continued conservation and sustainable management practices for over 110,000ha of protected forest, as well as additional areas of other habitats (i.e. wetlands and marshlands, including peatlands) that are contribute significantly to Climate Change mitigation by acting as natural carbon sinks.

The milestone BioCarbon Fund feasibility study conducted by the World Bank and State Committee for Forests of Ukraine in 2003 had the objective "to reconstruct, maintain and manage natural pine and beech forest on approximately 15,000 hectares of abandoned agricultural lands in the vicinity of Chernobyl in order to re-establish forestry as the most economically productive land use for the area, and also sequester Kyoto-compliant carbon from the atmosphere". The study clearly underlines that the sustainable forest management approaches that will be promoted through this project in the ChEZ, have a significant potential for replication in the rest of Ukraine. Carbon sequestration and voluntary carbon trade schemes were also assessed as having a clear potential in supporting government policy, indicating that "…Forestry is probably the most economically, environmentally and socially desirable and sustainable land use in the areas intended for reforestation. The value for Ukraine of implementing a BioCarbon Fund project would be that it could set a precedent for carbon trade associated with biological sequestration that could, subsequently, allow for significantly larger bilateral agreements to be realized, while also building the necessary awareness, experience and technical capacity of key Ukrainian forest sector actors needed to enable the country to pursue such opportunities…". And "…Radioactive material is present in green rather than woody plant matter and grass fires in non-forested abandoned agricultural lands can lead to dispersal of radioactive material to productive agricultural lands and settlement areas nearby. Forested areas are less fire prone and dispersal of radioactive material from fires occurring in forests is greatly limited by the presence of the trees and the forest canopy. Hence reforestation" combined with appropriate fire

monitoring and control measures "would not only sequester carbon from the atmosphere, but would also reduce the distribution of low level radioactive contamination, as well as the contribution of carbon to the atmosphere from fires."
Ukraine is also a signatory of the Forest Europe process. The Ministers (including Ukraine) in the recently concluded Ministerial Conference for the Protection of Forests in Europe (June 2011) agreed to embark on negotiations for the development of a legally binding agreement on forests in the pan European region. Ukraine is one of the 8 bureau members. Agreed 2020 targets for the above agreement include: …"*All European countries include strategies for forests and climate change adaptation and mitigation in national forest programmes or equivalents and all other relevant national strategies; the rate of loss of forest biodiversity at habitat level is at least halved and where feasible brought close to zero, and measures are taken to significantly reduce forest fragmentation and degradation and to restore degraded forests; the role of forests in combating desertification is fully recognised and forests are also managed to that end*"…

In July 2002, the Parliament of Ukraine ratified the UN Convention on Desertification, and the first UNCCD Country Profile was developed in 2006. The expected outcomes of the project -and namely the promotion of long-term sustainable land use practices in the ChEZ- will contribute directly to meeting Ukraine's commitments under the above convention, and will also be in full conformity with the guidelines expressed in the "Principal Directions for Land Policy, Requirements of Lard Conservation, Sustainable Use and Restoration" of Ukraine.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

The Chernobyl Accident: The accident at the Chernobyl Nuclear Power Plan (NPP), occurred in April 1986, stands among the most severe man-caused catastrophes in the history of mankind. Over 1.85×10^{18} Becquerel of radioactivity were released into the environment, with a fall-out area largely within a radius of 30 to 50 km around the NPP. The extremely high radiation doses forced people to leave these lands for an indefinitely long period of time. Over 135,000 people were evacuated, from about 70 population centers. Dozens of thousands of livestock were evacuated; all types of economic activities were stopped; buildings, enterprises, equipment and communications were abandoned. Ecological systems, which had undergone man-induced transformations during hundreds of years, were suddenly left untouched, and have now been under the impact of the radioactive fall-out and the natural processes linked to sudden the abandonment of all lands by the human population. Approximately 6,000 km^2 of lands in Ukraine, Belarus, and the Russian Federation were abandoned by human population in a matter of days, and large "Exclusion Zones" (EZ) and people resettlement schemes were established.

The Exclusion Zone: In Ukraine, the Chernobyl Exclusion Zone (hereinafter referred to as the ChEZ) was established according to the Low of Ukraine (791a-XII, 27.02.1991) on the status of the territories affected after the Chernobyl accident [http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=791%E0-12] , with an area of 2,600 km^2 . In the area adjacent to the ChEZ in Republic of Belarus, the "Polessky State Radiation Ecological Reserve" (2,150 km^2) was also established. The main habitat types represented in the Chernobyl Exclusion Zone include hilly landscapes and marshland plans, with a network of river valleys, beams and closed hollows. The ChEZ is mainly covered with pine (34%) and deciduous (23%) forests, which therefore occupy approximately 57 % of its total area (or approx. 148,000ha). The remaining are is covered by abandoned agricultural and de-forested lands and abandoned urban and industrial areas (totaling approx. 23% or 59,000ha). The main forest tree species include pine, birch, alder, oak and aspen. Over 44% of all forest in the ChEZ are on humid soils (33,7%), very humid soils (9,9%) or wet soils (0,7%). Baseline information on tree species distribution is available but requires full translation, updating and analysis, that will be carried out at PPG stage *(source: Dr. Sergiy Zibtsev, Associate Professor, Ph.D. (Forestry), Head of International Programs, Institute of Forestry and Landscape-*

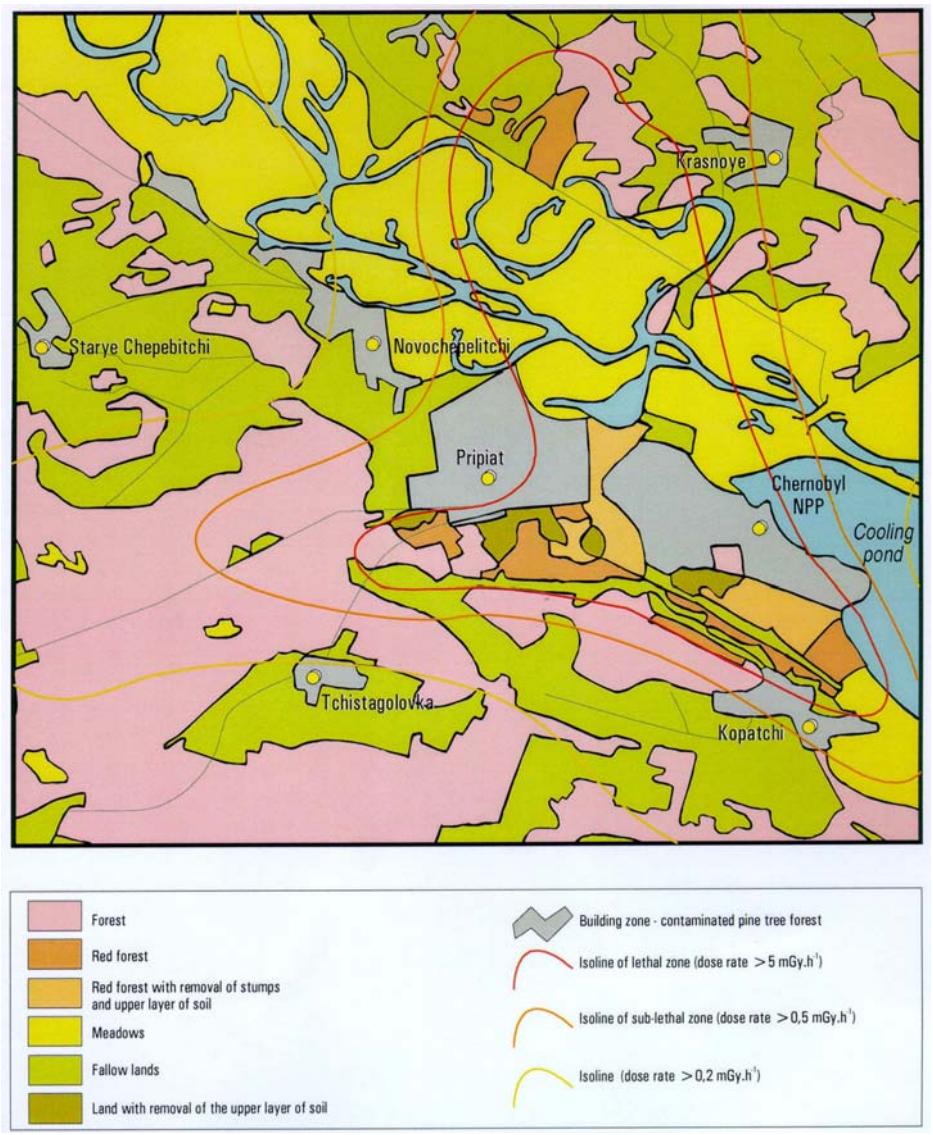
Park Management, National University of Life and Environmental Sciences of Ukraine, Kyev, pers. comm.).

Forest Area in the ChEZ (photo by Dr. Sergiy Zibtsev)

Other remote sensing studies in year 2000 also identified the following classes: pine forests; pine forests damaged with pine moth (see above picture); mixed forests, which consist of pine and deciduous trees; mixed deciduous forests, with prevalence of oak, birch and alder; natural and artificial plantings of birch and acacia; burned sites; vegetation of long-fallow lands and flooded lands along the rivers. *(adapted from: V.I.Lyalko, A.Ya.Hodorovsky, A.I.Sakhatsky, A.T.Azimov, Z.M.Sportjuk, O.N.Sibirtseva "satellite monitoring of forest of the chernobyl disaster influence area for ecological and fire risk assessment" Center of aerospace research of the Earth of National Academy of Science of Ukraine, Kiev, Ukraine - International Archives of Photogrammetry and Remote Sensing. Vol. XXXIII, Part B7. Amsterdam 2000).* There

There is currently no adequate habitat, vegetation or land-use map specific for the ChEZ, and it thus not possible at the time of writing this PIF to map and quantify the area covered by each vegetation type, i.e. in view of assessing the current and potential carbon stocks in the ChEZ. However such information does exist in larger scale national and regional maps and may also be derived through remote sensing analyses. Therefore such an analysis of existing baseline information will be conducted as part of the project preparation and inceptions phases.

Figure 1. provides an overview of main land use and habitat types in the areas surrounding the Chernobyl NPP in June 1986 *(source: International Atomic Energy Agency (IAEA) 2001 "Present and future environmental impact of the Chernobyl accident". Study monitored by an International Advisory Committee under the project management of the Institut de protection et de sûreté nucléaire (IPSN), France, (IAEA-TECDOC-1240)*



While the principal objectives of the EZ in Belarus was to ensure environmental and research activities, the main objectives of the ChEZ also included: comprehensive support to the processes of stabilizing and improving radiation and ecological conditions within the affected areas, prevention of radioactivity carry-over outside the region, and minimization of the accident's consequences. The Law of Ukraine established a special form of governance for the ChEZ: the lands were classified as radioactively hazardous, taken out of economic circulation, and separated from the surrounding territories. The ChEZ is enclosed along its perimeter and equipped with checkpoints. The access and all types of activities within ChEZ are subject to strict regulation and control. Though some level of industrial enterprises and patrol or monitoring personnel have been continuously active within ChEZ, their activity impacted only 5-10% of the total area. The conservation of Biodiversity and natural resources was initially not considered among the objectives for the establishment of the ChEZ. However, indirectly, the sudden and quasi-total protection status of the vast territory, the absence of human population, the low level of anthropogenic impact on nature, and the effort to allow the natural recovery of the ecosystems without human intervention, provided for a de-facto large conservation area for biodiversity and natural resources.

The Natural Recovery Process: The sudden removal of any form of human activity and the termination of all agricultural, forestry, industrial, and urban activities, triggered the start of natural a natural recovery and natural succession process, in a very large ecosystem. For the past 25 years, some 90% of the ChEZ territory (i.e. over 2,200 km^2), as well as adjacent areas in Belarus, have been kept under a very strict conservation status. A unique gradual restoration of autochthonous biological systems is currently in process. Vast areas of Wetlands and Forests are undergoing natural (or: not affected by human action) renewal processes. These protected ecosystems therefore now (a) host increasingly important populations of globally important species, (b) host an increasing area of Forest that acts as a significant carbon-sink thus contributing to climate change mitigation, (c) contribute to the protection and improvement of water resources quality, and (d) if forests are well-managed, this will contribute to the decrease of fire hazards within the region.

Expert assessments indicate that Flora and Fauna diversity and abundance has increased to levels that were not registered there for centuries. In particular, over 320 species of vertebrates (out of the 410 likely to occur in the area) were recorded, of which 55 species (out of 97 possible) are on the "Red List" of Ukraine. The population of ungulates, carnivores, and other game species increased to the highest level ever recorded. For example, the Lynx, Otter, and Beaver populations significantly increased during the last 25 years. Despite a high number of Wolves, the density and abundance of Moose is the highest in Ukraine, and the Red Deer, Wild Boar, and Roe Deer populations have also increased considerably. The White-Tailed Eagle, Spotted Eagle, Black Stork, Gray Crane, Eagle Owl, and many other rare birds are now known to be widespread within ChEZ. Bats (*Chiroptera*) are represented by 14 species, including the Pond Bat, Barbastelle Bat, and Greater Noctule, that are rarely met in Europe. The ChEZ is also located at the intersection of several main flyways for several populations of migratory birds in the African Eurasian Region, therefore playing a significant role in supporting these populations of birds in their seasonal migration cycles. Over 1500 species of lichens, mosses, and higher plants were recorded there, of which many are also red-listed, regionally endemic or relict. The sudden halt to all agricultural and forestry activities contributed to the recovery of all fauna and also invertebrate fauna. E.g. the system of pollinating insects also appears enriched. The local habitat diversity is classified into 23 different terrestrial and 7 aquatic phyto-systems, 12 terrestrial and 8 aquatic zoo-systems, 5 types of landscapes and up to 15 types of soils. Current estimates indicate that approximately 50-60% of the CHEZ is now covered by Forest.
The current ChEZ together with the Polessky State Radiation Ecological Reserve in Belarus form a single natural and geographical system with the total area of 4,750 km^2. The “Drevlyansky” Nature Reserve (30,873 ha) was also recently established (2008) in the adjoining territory of the Zhytomir region of Ukraine. These existing areas can therefore now be considered as the basis for potentially vast Protected Area Network with a combined core area of over 5,000km^2. The size and landscape diversity of the EZs allowed the recovery of natural ecosystem processes and habitat connectivity for the past 25 years, with restored genetic flows between ecosystems, which would have been impossible within a smaller area and between non-connected Protected Areas. This vast territory now provides a safe habitat for viable populations of both species with a limited range that are sensitive to anthropogenic impacts, as well as species that require large ranges to survive. This is confirmed e.g. by the increasing occurrence and regular records of the Brown Bear that had disappeared from the area during the previous century, the thriving population of the recently re-introduced Pretzwalsky Horse, as well as by the successful increase of the European Bison population in the neighboring Belarusian territory.

Impact of former human activity: Centuries of human activity and large scale Agricultural and Forest management practices resulted i.e. in the formation of vast mono-cultural plantations of Pine trees that without management are now highly vulnerable to diseases and prone to forest fires (which is an especially dangerous situation for forests located within radiation-hazardous sites). These areas are also somehow depleted in terms of their original biological diversity. In addition, many alien or invasive plant species appear to be aggressively expanding their range within the area, displacing autochthonous species. The historic reclamation of marshlands and creation of an extensive network

of drainage canals had drastically changed local pattern of water circulation, depleted the area's original biological diversity, and negatively affected the levels of vital Ecosystem Services provided by the local ecosystems, such as maintaining local thermal and rainfall patterns, limiting GHG emissions in the atmosphere, and ensuring surface water purification. The long-term agricultural activity that was in place until 1986, resulted in the contamination of soils and water sources with chemicals and persistent organic pollutants. The remains of the physical infrastructure of former population centers are still in place, including i.e. industry, transport, as well as solid waste dumps and landfills. These form a significant obstacle towards the natural process of rehabilitation of surrounding habitats, as well as a risk factor for many species of wildlife, as well as people.

Understanding the actual scope and impact of the natural recovery process: despite the recorded significant decrease in radiation levels and decreasing impact on biological diversity, combined with an obvious enrichment of biological systems, experts are questioning the status and "quality" of biological diversity and the general "health" of ecosystems within the ChEZ. Therefore their potential role in maintaining and enriching the biodiversity of the neighbouring European region remains a question mark. Scientific knowledge in this field is yet rather limited not yet sufficient, and it does not provide an adequate basis for the development of suitable management approaches for existing natural resources and biodiversity. A better understanding of the scope and local/wider impacts of ongoing recovery processes is an essential requirement for any environmental management initiative within ChEZ, and it may also inform the development of plans for the recovery in other regions of the world affected by similar accidents (e.g. Japan).

Monitoring of radiation levels: the ChEZ will retain a status of radiation-hazardous area for a long time in the future, and as such it should continue to be subject to a continuous radiation monitoring programme. Continued research and monitoring will provide the necessary basis to improve our currently limited understanding the underlying natural recovery process that are taking place in the ChEZ ecosystems and determine future prospects for the conservation and development of the area.

ChEZ Current Nature Protection Status: A total of 13 Protected Areas were already established within the current ChEZ, prior to the ChNPP accident, under the "Nature Reserve Fund" legislation. However, these covered less than 1% of the current total area of the ChEZ and had a low level of legal protection. Another Protected Area (the "Generic Zoological Game Reserve of National Importance" or "Chernobyl Special") was added in 2007 and thus enlarged the total conservation areas up to 20%. However, all these Protected Areas currently fall under a low category of legal protection, and an Environmental / Protected Area Management structure is not in place for any of them. However the above initial steps by the Government of Ukraine (GOU) demonstrate the existing commitment and recognition of the region's value for Biodiversity Conservation.

The now semi-natural ecosystem within the ChEZ is bio-geographically well connected with all natural ecosystems within and adjacent to its boundaries, including those Protected Areas already having some form of legal protection status. In particular, The ChEZ borders with the "Dnieper-Teteriv Forestry and Hunting Reserve" (30,400 ha) to the South, with "Drevlyansky" (30,873 ha) and "Polessky" (20,104 ha) Natural Reserves to the West, with the extensive Polessky State Radiation Ecological Reserve (Belarus, 215,000 ha) to the north, and with the "Mizhrichynskyi" Regional Landscape Park (102,500 ha) to the East. The ChEZ is also situated at the intersection of the Pripyat and the Dnieper corridors within the European Ecological Network. This situation now offers increased opportunities for contact between neighbouring populations of several species (including vulnerable and threatened ones), and is allowing a higher degree of local/regional movement and seasonal migrations. This is likely to be fostering increased levels of genetic diversity, thus enhancing the populations' long-term viability, especially of those species with a lower distribution density, and vulnerable ones.

Establishment of a proper "ChEZ Protected Area": The existing situation is regarded by the Ministry of Ecology and Natural Resources (MENR) and the GOU as very favorable in terms of the

establishment of a well-managed Protected Area in the ChEZ, with Biodiversity conservation and Climate Change Mitigation as its main objectives. Such objectives are also fully consistent with the original aims of the existing ChEZ, which recognized that the preservation of natural ecosystems constitute probably the most appropriate, efficient, and safe measure to prevent the spread of radioactivity. Supporting the restoration and conservation of natural and semi-natural habitats is expected to guarantee the best avenue to safety within the neighboring areas. Moreover, so far the priority was given to allowing the recovery of the ecosystem through natural processes, with human interference only envisaged to mitigate the threat of a significant radionuclides carry-over (e.g. due to floods, or forest fires). The historic approach to the management of the ChEZ did not contradict the objectives of nature conservation, and therefore the latter has gradually acquired have a significant role in terms of the long-term prospects for conservation and sustainable development of the ChEZ.

The existing legislation of Ukraine is currently not conducive to the establishment a Protected Area (or "Nature Reserve") of the highest IUCN protection category within the ChEZ, because of formal reasons. The Low of Ukraine (16.06.1992, No.2456-XII) on the "fund for protected natural areas", includes categories of protected areas (natural reserves and biosphere reserves; articles 15 and 17, respectively), whose criteria of definition are in accordance with the current conditions of the majority of the area within the ChEZ. Moreover the Low of Ukraine (791a-XII, 27.02.1991) of areas affected after the Chernobyl accident declares necessity of strict nature protection regime (article 14). However the current legislation assigns land tenure and administration rights for the ChEZ only to the Agency of the Ministry of Emergency. The MoE is therefore responsible for all kind of activities in the ChEZ, mostly related with radiation safety, management with radioactive territories and elimination of the accident consequences. The Ukrainian legislation currently (a) does not provide for the option of transferring the management responsibility of radiation-affected lands (such as the ChEZ) to another Ministry (in the given case – Ministry of Ecology and Natural Resources) while (b) the law allows for the establishment of natural Protected Areas of lower conservation category without the creation of a special management organization. Also, for radiation safety reasons, the existing low considerably restricts possibilities for land management which would be required or appropriate for Natural Reserves (e.g. allowing long-term stays of PA staff in radioactive areas).

However, the laws and international obligations of Ukraine regarding environmental protection are applicable throughout the whole country. In particular, existing legislation supports the protection of sites where "red-listed" species are found, and particularly for those sites of importance for species' reproduction, or as critical sites along bird migration routes, etc. The existing legal mechanisms allow the establishment of appropriate conservation measures within any given area, even without establishing the highest-category Protected Area. However, the de-facto situation of quasi-total protection created since 1986 through the lack of any human settlement and human activity within the Chernobyl Exclusion Zone, would at this stage greatly simplify the long-term physical protection of such a valuable natural area with a limited additional cost. The current status of the ChEZ as which "radiation-hazardous lands" may be regarded as equivalent to the highest-category IUCN conservation status (where i.e. no human activity is allowed), but in a situation where no appropriate Protected Area Management structure has been established yet.

The original purpose and main objectives of the ChEZ (set at the time of its establishment right after the NPP accident), are now mostly achieved. The area is currently considered as being a rather stable and controllable ecosystem with the minimum possible threat of fall-out of radionuclides, thus relatively safe for the surrounding areas.

However several of the critical factors described above are not yet properly monitored and understood nor adequately managed, and new issues are emerging. These include i.e. the persisting radioactivity levels have not been fully studied nor its effects fully understood or mitigated, both on human health and on biodiversity; the management of radioactive waste that still exists within the core area; the lack of appropriate monitoring programmes for radiation levels across the wider ChEZ; the expensive decommissioning programme for the Chernobyl NPP; the need to mitigate the risk of forest fires (that could lead to radioactive fall-out through smoke); the role of local communities that were displaced

from the area and now live in neighbouring territories, and the role of the few illegal settlers still living within the ChEZ.

Proposed Action: These complex issues described above underscore the importance of an improved and coordinated management approach for the ChEZ. This project will provide GEF incremental support to the GOU in taking the first steps towards the implementation of a set of appropriate environmental monitoring and management measures for the ChEZ.

The project objective is to "*Conserve, Enhance and Manage Carbon Stocks and Biodiversity in Forest and non-Forest Lands and Promote Sustainable Development in The Chernobyl Exclusion Zone through the Establishment of a Research and Environmental Protection Centre and associated Protected Area within and around the current Chernobyl Exclusion Zone (ChEZ), in Ukraine*" The project therefore expected to contribute to the following outcomes and associated outputs, grouped under three components:

Component 1. Enhanced management of forest and non-forest lands, biodiversity conservation and sustainable development in the ChEZ through the establishment of a "Research and Environmental Protection Centre"

Outcome 1.1 Conservation and sustainable management of forest and wetlands habitats as well as biodiversity and other natural resources and associated carbon benefits in the ChEZ are enhanced through the establishment of a "Research and Environmental Protection Centre"

Output 1.1.1 Essential networking, surveys and laboratory equipment is in place, as required to support the new Centre's research programme and building upon existing infrastructure for the Centre, within and outside the ChEZ

Output 1.1.2 The required professional capacity to manage the Centre and operate the new equipment (ref. 1.1.1) is developed

Outcome 1.2 Comprehensive research and field experiments programme is designed and launched, focusing on how radioactively polluted areas can be restored and further contamination of the environment can be avoided

Output 1.2.1 Comprehensive Assessment of the current state and trends of natural ecosystems affected by radioactivity in the ChEZ, including those more affected by radioactivity, forecasting of future evolution processes, and development of recommendations for environmental protection

Output 1.2.2 Assessment of the impact of radioactivity-related and non-radioactivity-related factors on selected habitats, species and populations of global importance

Output 1.2.3 Targeted Radio-ecological research to improve understanding and allow (a) a balanced evaluation of the actual impact of the NPP accident on the natural ecosystems, and (b) enhanced monitoring, conservation and management of carbon stocks in forest and non-forest lands, and (c) future prospects for the sustainable development of the ChEZ area

Outcome 1.3 The status and potential in terms of Ecosystems Services values, enhancement of carbon benefits and meeting LULUCF targets in the ChEZ is assessed in light of major local and global environmental issues, i.e. fostering conservation of globally important Biodiversity, and contributing to CC Mitigation through improved conservation and management of carbon stocks,

meeting LULUCF targets as well as reduction of Land Degradation in line with EU policy and relevant global conventions

Output 1.3.1 Assessment of the status and pattern of rehabilitation processes of Forest and wetlands habitats and evaluation of their role in terms of CC mitigation and meeting LULUCF targets in line with EU policy and relevant global conventions

Output 1.3.2 Study the ongoing natural succession processes in the various habitat types affected by radiation in the ChEZ, in order to identify appropriate management measures to prevent their degradation and facilitate their natural rehabilitation

Output 1.3.3 Develop a fire monitoring system within the ChEZ, as an element of the pan-European monitoring system for the prevention and control of fires

Output 1.3.4 Study the development of appropriate sustainable habitat management measures for the rehabilitation of Forests, Wetlands and Marshlands contributing to the conservation and enhancement of carbon stocks, meeting LULUCF targets, and to a sustained provision of a bundle of critical Ecosystem Services including i.e. Biodiversity conservation, Climate Change Mitigation, Water purification, etc. such measures may range from the restoration of wetlands, afforestation of abandoned non-forest agricultural lands and rangelands, to the improved management of existing forests, and they may include, but not necessarily be limited to sustainable land-use and forest management practices that will reduce wildfire hazards, while also enhancing carbon stocks and protecting the dense pine forest vegetation from pest attacks. These may include i.e.: silvicultural measures for reducing wildfire hazard in coniferous forests, particularly the introduction of less flammable and economically valuable broadleaved tree species intermixed in pure coniferous stands; thinning operations and sanitary cuts; construction of anti-fire barriers consisting of firebreaks and internal fuelbreaks, planting of fire-resistant forest edges and shaded mineralized shelterbelts.

Component 2. Establishment and management of a full Protected Area Network for the protection and sustainable management of carbon stocks in large areas of Forest and non forest lands, including wetlands and other habitat types within and around the current ChEZ

Outcome 2.1 The ChEZ is upgraded to the status of Protected Area network, to enhance the conservation and management of carbon stocks and secure the long-term basis for appropriate management, monitoring and research for large areas of Forests, wetlands and other habitat types

Output 2.1.1 Comprehensive Ecological and socio-economic surveys are conducted to (a) assess the status and distribution of habitat types, carbon stocks and key biodiversity assets in the ChEZ, focusing on globally important, keystone and flagship species and populations, (b) assess the status of the existing protected areas within the ChEZ, (c) identify, describe and map the main habitat types, carbon stocks and biodiversity features of all the remaining area within and around the ChEZ, and (d) assess the main features of the complex underlying socio-economic development context of the ChEZ

Output 2.1.2 A Protected Area Zoning Plan is developed, defining areas with various degrees of carbon stocks enhancement and conservation potential, biodiversity conservation priority and long-term sustainable development potential, as the basis for Protected Area design and management

Output 2.1.3 A comprehensive PA Management Plan is developed in a participatory manner on the basis of results of (2.1.1) and (2.1.2), in accordance with existing laws of Ukraine, and in close consultation with local residents and communities, including women groups, local and national authorities, land owners, private sector, NGOs, Research institutions and other stakeholders. The Plan will i.e. (a) define a long-term Vision, Objectives and Priority Management Actions for the new ChEZ PA; (b) include measures for monitoring, conservation, restoration and management of carbon stocks in forest and non-forest lands; (c) incorporate Forest Fires control systems and measures for long-term natural habitat restoration and mitigation of radionucleotides' emissions; (d) include legal and regulatory frameworks that integrate Sustainable Forest Management principles; (e) define plans for the conservation of species listed in the Red Book of Ukraine and IUCN international red books, and (f) lay the foundations for the creation of conservation and education center(s) for key flagship species such as the European Bison, Przewalski Horse, Lynx, Bear, Bats, and selected rare species of birds.
The new large PA is therefore expected to contribute significantly to the conservation of globally important Biodiversity and other critical Ecosystem Services for Ukraine and the wider region

Output 2.1.4 A Protected Area management structure, an initial core team of staff, equipment and associated professional capacity is developed

Output 2.1.5 A Collaborative trans-boundary international programme on radio-ecological research, monitoring and management of carbon stocks in forest and non-forest lands, and protected areas management is initiated with the Polessky State Radiation Ecological Reserve in the neighbouring Republic of Belarus. The scope and focus of this programme will build upon ongoing collaboration between the two countries and will be developed in detail during the PPG phase. However it is currently envisaged it will focus on a wide range of issues including i.e.: development of common protocols for the monitoring and measurement of carbon stocks and emission based on IPCC guidance; development and testing of habitat rehabilitation and sustainable land use and forest management practices (including fire control) that are appropriate to the context of the ChEZ; identification and drivers of undesirable land-use changes in the protected areas buffer zones; policy formulation; radio-ecological research and monitoring; biodiversity conservation and protected areas management; joint conservation of migratory species; assessment of the current mycorrhizal status of plants, contributing to the improved understanding of the dynamics of the rehabilitation processes of Forest habitats and functionality of terrestrial ecosystems in the Chernobyl exclusion zone, etc.
This enhanced collaboration is expected to strengthen the role of the new ChEZ PA as a functional part of the National and Regional System of Protected Areas (i.e. EECONET)

Component 3. Learning, field testing, and dissemination

Outcome 3.1 A set of Lessons Learned and Practical Recommendations on habitat rehabilitation, carbon stocks management and biodiversity conservation emerged from prior and ongoing work in the ChEZ, and applicable to similar situations, is developed and published

Output 3.1.1 A set of general principles, methodologies and technologies are developed and –where applicable– also field-tested for the short and long-term management of radioactively contaminated areas

Output 3.1.2 The potential approaches for the radiation-safe, environmentally- and health- friendly sustainable use of selected natural resources within and around the ChEZ is assessed, in order to enhance the management of carbon stocks while promoting socio-economic development in the surrounding areas

Output 3.1.3 A set of training packages is developed and delivered to an initial set of Trainers from Ukraine and other countries, focusing on preparedness, natural habitats rehabilitation, carbon stocks monitoring and management, and biodiversity conservation practices and methodologies related to nuclear accidents

Outcome 3.2 The results of (3.1) are widely disseminated nationally and internationally

3.2.1 A permanent collaboration programme is established between the "Research and Environmental Protection Centre" and relevant national and international institutions

3.2.2 The results and publication emerging from (3.1) are widely disseminated and public awareness is raised through a variety of means as defined in the project Communication Strategy to be defined in the PPG phase

3.2.3 An Education and Awareness Center on the ChEZ is established in the National Nature Park "Golosiyivskiy" in Kyiv.

The above measures will be carefully developed taking into account the acquired high global importance of the area for Biodiversity conservation and Climate Change Mitigation, and the complex interaction of a wide range of environmental as well as human health issues at play in the area. The promotion of environmental conservation activities within ChEZ is regarded as a high priority by the GOU. However, it is also clear that conservation should be combined with continues radio-ecological research and close monitoring of the ChEZ ecosystems. Hence the Protected Area management must be supported by intensive and long-term research and monitoring programme that can cover all aspects described above. These programmes will also include the evaluation of the full range of "ecosystem services" provided by the Protected Area, as well as the assessment of the area's future conservation and development prospects, as a basis for development of balanced approaches to the sustainable management of natural resources within the region, in collaboration with disadvantaged communities in the neighbouring areas, and in full adherence to radiation safety requirements. A summary Logical Framework is provided in Table B above and will be fully developed in consultation with stakeholders during the project preparation phase

B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The GOU has invested enormous human and financial resources to establish and manage the ChEZ over the past 25 years, and it plans to continue doing so for a long time. It is estimated that the envisaged baseline and co-financing investment by the GOU to control and monitor the status of the extensive ChEZ over the project period of four years will be in the range of 8,700,000 USD. This

includes the costs of management, renovation and maintenance (including, e.g. utility payments, security, communication, office and labs maintenance, repair of existing and construction of new infrastructure, staff management, state-level certification and licensing, taxes and mandatory deductions, etc.) for the following main GOU assets and operations relevant to the project objective:

- Laboratory and office facilities of the "International Radioecology Laboratory" and office premises, conference hall and essential equipment Chernobyl Centre for Nuclear Safety, Radioactive Waste and Radioecology, all located in Slavutych town, outside the ChEZ.

- Laboratory premises, lab equipment and auxiliary facilities in Chernobyl town, located inside the ChEZ.

- Monitoring, security, management and maintenance of infrastructure, fire control systems, of the 13 existing Protected Areas within the ChEZ, and of other adjacent protected areas totaling an approximate area of 1,000 km^2. In addition, the GOU is committed to extending this support to the wider ChEZ (2,600 km^2) based on the results of this project and the establishment of a new Protected Area.

- Management and maintenance of Several Landscape Management, Hydro-biological and Ecological Research Testing Grounds located within the ChEZ (including the NPP cooling pond and the Prypiat River)

This represents a significant GOU baseline investment towards the establishment of the Protected Area and the set-up of the Center. In addition, several bi-lateral and multilateral donors have recently pledged support to the GOU for the monitoring and rehabilitation of the ChEZ, including i.e. Germany, Switzerland, Nordic countries, Japan, Canada, the EU, the EBRD, and others. This additional co-financing contribution is currently estimated at a minimum of approximately 3,000,000 USD over the project period (a more accurate estimation will be possible during the project preparation phase).

The GEF contribution would be additional and incremental to the above baseline scenario. It will focus on the provision of specialized technical assistance, capacity building and limited investment in specialized equipment and infrastructure. This is expected to generate a wide range of Global Environmental Benefits, while supporting the capacity of the GOU towards (a) ensuring the long-term conservation of Globally important Biodiversity and Ecosystem Services in existing and new Protected Area of approximately 100,000ha to 220,000ha (actual size to be discussed and agreed with the Ministry of Emergency and other stakeholders); (b) enhancing capacity to monitor and account for the Climate Change mitigation functions of large areas of Forests and wetlands within the ChEZ and the new PA, (c) supporting the establishment of long-term sustainable land-use and forest management practices for the large areas located within the ChEZ and the new PA, including mitigation of forest fire hazard and radionucleotides fall-out, and (d) development of lessons, principles, policy models, and strategic approaches and methodologies and associated training programmes that can underpin the adoption of natural recovery processes for the rehabilitation of other areas of the world affected by nuclear accidents and/or isolated from human interventions for extended periods of time.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

The ChEZ is currently and apparently not generating any net economic benefit for Ukraine. On the contrary, it has been and continues to be perceived as representing an immense cost for the country. The communities that resided in the area and were suddenly evacuated in 1986 have immensely suffered from what is the works industrial accident in human history. The project will contribute additional resources and add new dimensions to the ongoing process of recovery for the ChEZ undertaken by the GOU, thus contributing to the enhancement of the socioeconomic benefits delivered to the local communities and the national economy as a whole.

The GEF contribution will enhance the capacity of the GOU to account for and quantify the real economic benefits that can be derived by the proper management of a National Protected Area in the ChEZ, through e.g. the valuation of the wide range of Ecosystem Services provided by the naturally recovering habitats within the ChEZ. The project will also contribute to increasing the social and economic benefits for disadvantaged local communities living in adjoining territories, with due consideration to gender dimensions, through the development of a range of alternative employment opportunities within the management and research structures envisaged for the new ChEZ Protected Area, as well as other micro-economic activities linked to the establishment of the protected area (which may possibly also include eco-tourism in some areas).

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

Identified Risk	Likelihood/ Severity	Proposed risk management measures
1. Results of increased levels of research and monitoring point to new issues or constraints that were not previously identified	M	The nature and scope of this project will require a high degree of adaptive management, to adjust project activities in accordance with the results of ongoing and planned monitoring and research work to be conducted within the ChEZ and the new Protected Area. The priority management measures for the Protected Area, as well as research priorities, will have to be continuously reviewed and focused on the most important management priorities. This important aspect will be taken into account during the project design phase, and included in the M&E process.
2. Fire hazards and Climate Change risks		In forests contaminated by radiation fire poses a continual risk (in addition to carbon emissions): forest fires could send clouds of smoke carrying radioactive material into the atmosphere. The fuels burnt in forest fires contain radioactive cesium, strontium and often plutonium. In the products of fuel combustion (ash and partially burnt fuels), the concentration of radionuclides sharply increases. A part of the radioactive ash remains on the fire site, and the other part is released in smoke aerosols and transported over various distances. The observed and anticipated pattern of climate change, with modified rainfall patterns and extended periods of drought, are expected to increase the risk of forest fires, as well as the risk of attack by insect pests. Therefore the project will promote a range of applicable sustainable land-use and forest management practices that will reduce wildfire hazards, while also enhancing carbon stocks. These may include i.e.: silvicultural measures for reducing wildfire hazard in coniferous forests, particularly the introduction of less flammable and economically valuable broadleaved tree species intermixed in pure coniferous stands; thinning operations and sanitary cuts; construction of anti-fire barriers consisting of firebreaks and internal fuelbreaks, fire-resistant forest edges and shaded mineralized shelterbelts.
3. The level of political support for the establishment of a Protected Area is	M	The current level of Government support for the project is very high, and this is not expected to change in the foreseeable future. However the project will seek to establish adequate project governance and consultation mechanisms so as to ensure the continued communication with and

not sustained		engagement of the political and decision making sector, both at the local and national level.
4. Communities resident in surrounding areas (and formerly resident within the ChEZ), are not supportive of conservation plans	M	This is a risk that can only be mitigated through continued and focused and well-targeted communication, consultation, education and involvement of local communities. A comprehensive and well-costed communication plan will be developed during the PPG and operationalised as a first step at the outset of the project to engage former local residents in the new initiative and mitigate any risks of misunderstanding or conflict. The project will also place emphasis the generation of socio-economic benefits associated with the establishment of the new Protected Area. Priority in job creation and capacity building will be given to the disadvantaged social groups, including women groups, within the surrounding community of former residents of the ChEZ
5. The needs and priorities of the more disadvantaged groups of society, including Indigenous groups and Women Groups are not adequately taken into account by development plans	L	This risk is fully acknowledged also on the basis of the review of the lessons learned in previous UN and GEF projects at the global level. Therefore all aspects of the project's design, implementation strategy and monitoring and evaluation process will closely look at this important aspect and take this risk into account. This will inform the set-up of adequate stakeholder consultation and involvement mechanisms from project outset, with full support from the GOU, and under the auspices and supervision of UNEP as the GEF implementing agency.

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

Category	Stakeholders	Roles and Contributions
National Government and affiliated organizations	Ministry of Ecology and Natural Resources (MENR), Ministry of Emergency, National Academy of Sciences of Ukraine, State Committee for Forests, ChEZ Administration, Local Municipal Authorities, Institute of Nuclear Research, Institute of Forestry and Landscape-Park Management National University of Life and Environmental Sciences of Ukraine, and others	The national government and a wide range of government-affiliated institutions will play a major role in the project and contribute a significant baseline investment on which the GEF contribution will build upon. These will include, i.e.: Management of Protected Areas including staff, infrastructure, equipment and operations; National, regional and local level Land-use and development planning processes and underlying government staff and infrastructure, including relevant legal expertise; National and local level academic research based on extensive data collection and analysis (both in terms of space and time series) on climatic and environmental parameters, wildlife management and natural resources management, monitoring radioactive levels; forestry and forest fire management and control, etc.
Local and	All relevant local indigenous community	Participation in project consultations

Indigenous Community Groups, including Women groups	groups, including women groups will be identified for each specific target area, during the PPG phase.	mechanisms and in project activities including policy dialogues and working groups at all stages including: project design, implementation and monitoring and evaluation.
Private Sector	The possible involvement of Private Sector will be explored during the PPG phase, focusing mainly on the engagement of small scale, community-based enterprises (SMEs) active within the area surrounding the ChEZ, as larger investment groups at the national level, that may be interested in supporting the objectives of this project.	Participation in project consultations mechanisms and in project activities including policy dialogues and working groups at all stages including: project design, implementation and monitoring and evaluation.
International CSOs, conservation NGOs & other conservation-oriented partners	WWF, IUCN, BirdLife International, Wetlands International, USFWS, University of Yale (USA) and University of Freiburg (Germany) (both on forest fires management), University of La Tuscia (Italy), Dept. Crop Plant Biology, University of Pisa (Italy) and others	Will be involved in various biodiversity conservation elements of the project including i.e.: monitoring and field research, training and capacity building, development of conservation policies and legal instruments, community involvement, outreach and awareness programs; assessment and evaluation of the ecosystem services provided by the ChEZ, etc. All such contributions will be defined in detail during the PPG phase, and will be supported through in-kind support as well as grants
International Multi-lateral Environmental Agreements	AEWA and CMS Secretariat, Ramsar Convention Secretariat, CBD Secretariat	Provide linkages with relevant international processes; provide guidance and technical expertise to counterpart institutions in Ukraine, if and as required; support compliance by Ukraine to relevant conventions; assist in showcasing the experience and achievements of the Ukraine in international fora
UN and International Organisations	The following partners have been involved in the preparation of the PIF and will be involved to a variable degree during project design and implementation. These include i.e. UNEP DEPI/ESE Unit, DEPI/TEU unit, DEPI/GEF-BD/LD unit, UN WILDFIRE Network, UNU, UNEP-WCMC, UNEP Regional Office for Europe, IAEA, UNSCEAR, WHO, UNICEF, and others	UNEP and its specialised partner agencies will (in addition to the GEF Implementing Agency functions played by the UNEP GEF team) will provide a wide range of technical in-kind contributions to the design and implementation of the project, including i.e.: linkages with parallel UNEP programmes of national and global nature and focusing on related issues; protected areas, conservation planning, environmental policy and climate change-related expertise; biodiversity databases, data analysis, decision-support and GIS systems; conflict resolution and natural resources management, etc. The contributions of each division and UNEP partner organisations will be defined in detail during the PPG phase.

B.6. Outline the coordination with other related initiatives:

A number of initiatives are either ongoing or planned within and around the ChEZ, with funding from the Government of Ukraine (GOU) and international Donors. These include, i.e.:

- The Chernobyl Shelter Fund was established in 1997 to finance the Shelter Implementation Plan (SIP). The plan calls for transforming the site into an ecologically safe condition by means of stabilization of the sarcophagus followed by construction of a New Safe Confinement (NSC). While the original cost estimate for the SIP was US$768 million, the most recent estimate is $1.4 billion. The SIP funds are being managed by EBRD and a consortium of Bechtel, Battelle, and Electricité de France designed a movable arch, constructed away from the shelter to avoid high radiation, to be slid over the sarcophagus.

- The Chernobyl Recovery and Development Program (CRDP) launched by UNDP in 2003 for the recovery of the affected areas. The program is based on the recommendations in the report on Human Consequences of the Chernobyl Nuclear Accident. The main goal of the CRDP's activities is supporting the Government of Ukraine in mitigating long-term social, economic, and ecological consequences of the Chernobyl catastrophe. CRDP works in the four most Chernobyl-affected areas in Ukraine: Kyivska, Zhytomyrska, Chernihivska and Rivnenska. Several donors (i.e. Japan, Canada, Switzerland) have contributed $4.0 million.

- The International Project on the Health Effects of the Chernobyl Accident (IPEHCA) was created and received US $20 million, mainly from Japan, in hopes of discovering the main cause of health problems due to 131I radiation. These funds were divided between Ukraine, Belarus, and Russia, the three main affected countries, for further investigation of health effects.

- The International Chernobyl Research and Information Network (ICRIN) launched in 2009 is a three-year regional project, a joint effort by the International Atomic Energy Agency (IAEA), the United Nations Development Program (UNDP), the United Nations Children's Fund (UNICEF), and the World Health Organization (WHO) designed to meet the priority information needs of affected communities in Belarus, the Russian Federation, and Ukraine. Funded by the UN Trust Fund for Human Security, this initiative aims to translate the latest scientific information on the consequences of the accident into sound practical advice for residents of the affected territories and make them transparent. See www.chernobyl.info

In year 2011, year of the 25th anniversary of the NPP accident, and in conjunction with the occurrence of the unfortunate accident at the Fukishima NPP in Japan, several countries have pledged support for the rehabilitation efforts of the ChEZ area and NNP de-commissioning, also in view of improving our understanding and capacity to manage and mitigate the damages caused by such nuclear accidents, i.e. through the optimisation of natural recovery processes. In this context, the long-term experience of the ChEZ is regarded as a valuable study case that can generate lessons, approaches and methodologies of global relevance. These new GOU and Donor funded initiatives are however largely in the process of being defined at the time of PIF development. Therefore appropriate consultations and coordination mechanisms will be established during the project design phase, through (a) extensive stakeholder consultation and stocktaking process during the PPG, (b) establishment of an inclusive Project Steering Committee that will involve all key GOU players and major donors involved, and (c) a Monitoring & Evaluation protocol that will entail regular consultation with all key project partners and relevant parallel initiatives as outlined in the project document.

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

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

Several branches of UNEP and UNEP partner institutions have already conducted work in the area, and will contribute to the design and implementation of this project. These include: The UNEP Regional Office for Europe (ROE - Geneva) through its active programme of collaboration with Ukraine; The Division of Environmental Policy Implementation (DEPI), through several of its units/branches including: the UNEP/DEPI Terrestrial Ecosystems Unit (TEU - Nairobi) and its Forest team; the GEF BD/LD Unit (Nairobi) and the Ecosystem Services Economics Unit (ESE - Nairobi). Other external UNEP partners include the UNEP-WCMC (World Conservation Monitoring Centre), the UN WILDFIRE Network and the United Nations University that have both conducted significant relevant work in Ukraine with several national and international research institutions, and will be involved in this project. The cumulative direct in-kind co-financing that UNEP is bringing to the project will therefore amount to a minimum of approximately 300,000 USD over the project period (to be further assessed during PPG).

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The project is consistent with the following areas of UNEP's mandate in the GEF (as identified in the UNEP Action Plan on Complementarity, approved in May 1999 by the GEF Council):

UNEP's mandate is to coordinate the work of the UN in the area of environment. Its projects promote regional and multi-country cooperation to achieve global environmental benefits, focusing on diagnostic analyses and cooperative mechanisms, and associated institutional strengthening

UNEP contributes to the ability of the GEF and of countries to make informed strategic and operational decisions on scientific and technical issues in programs and project design, implementation and evaluation, through scientific and technical analyses. These include assessments, targeted research, methodology development and testing and structured programme learning projects.

UNEP implements projects to promote specific technologies and demonstrate methodologies and policy tools that could be replicated on a larger scale by other partners.

The project is fully consistent with and complementary to the objectives and expected outcomes of the ongoing UNEP Programme of Work 2010-2011 and upcoming POW for 2012-2013 (approved in Feb 2011), specifically under the Environmental Governance and Climate Change sub-programmes.

UNEP has active programmes in Ukraine through the ROE Division and its partners (UNDP, IAEA, etc.), and in 2010 UNEP ROE supported the formulation of the "National Environment Summary" (NES) for Ukraine, prepared within the context of UNEP's involvement in the UNDAF formulation in Ukraine. The NES focused mainly on the Chernobyl issue. More recently, UNEP ROE's is engaging with Ukraine and Belarus on the development of new initiatives to study options for the rehabilitation of agricultural lands affected by radioactivity in the surroundings of the ChEZ. The above UNEP activities entail frequent visit to the country and close collaboration with the Ministry of Ecology and Natural Resources (MENR) of Ukraine as the project Executing Agency for this project. It is also envisaged that UNEP and project partners' presence in the country will be intensified and reinforced to support the implementation of this project.

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

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

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Dr Vadym POZHARSKYI	GEF Operational Focal Point, Ukraine	MINISTRY OF ECOLOGY AND NATURAL RESOURCES	**08/31/2011**

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
Maryam Niamir- Fuller, Director, GEF Coordination Office, UNEP		09/15/2011	Edoardo Zandri, GEF Task Manager, DEPI, GEF BD/LD Unit, UNEP, Nairobi	+254 20 762 4380	edoardo.zandri@unep.org