

Government of Algeria
United Nations Development Programme

SIGNATURE PAGE

Number:	ALG/02/G31/A/1G/01
Title:	Conservation and sustainable use of globally significant biodiversity in the Tassili and Ahaggar National Parks
Duration:	3 years
Countries:	Algeria
ACC/UNDP (Sub) Sector:	G3: Environment
GEF Focal Area:	Biological Diversity
GEF Operational Programme:	1
GEF Implementing Agency:	UNDP
Executing Agency:	UNDP-DEX
Coordinating & Supervising Agency	Ministry of Foreign Affairs

UNDP and Cost-Sharing Financing for the project first phase (in US\$):	
TOTAL:	6,065,720
UNDP TRAC:	185,100
UNDP-GEF:	3,540,620
Sub-total:	3,725,720
Parallel financing:	
Government (in kind):	2,340,000
Sub-Total:	2,340,000
<i>LPAC Review Date:</i>	<i>16 July 2003</i>
<i>Program Officer:</i>	<i>Djahida Boukhalfa</i>

Brief Description: The Tassili n'Ajjer and Ahaggar National Parks cover a area of 452,000 km², constituting the largest contiguous protected area in Africa and a site of global significance for conservation of biodiversity in the central Saharan ecosystem. There is now considerable opportunity for achieving cost-effective conservation of the Tassili-Ahaggar ecosystem, with low background levels of threats to biota, strong commitment to conservation by national and local government and fast-improving law and order fundamentals in Algeria. However, stakeholder capacity to manage biodiversity is weak creating the danger of biodiversity loss as such risk-prone and fragile environments are uniquely vulnerable to adverse externalities. A comprehensive package of measures is proposed to enable an effective country-driven conservation initiative that secures global environmental benefits in desert ecosystems. The project will support a approach, enabling the development of new forms of local governance, based on flexible and plural legal frameworks and institutions that are rooted in appreciation of the consequences of ecological uncertainty in desert ecosystems. Final outcomes would include permanently staffed, technically autonomous and financially sustainable Protected Area Management Units with clear mandates and appropriate planning, monitoring and law enforcement prerogatives. Collaborative management agreements would involve key stakeholders in the adaptive, equitable and sustainable use of biodiversity resources and the development of innovative, environmentally-compatible, economic activities which meet livelihood needs. An adaptive management planning process will formalize operational links between the two Protected Area Management Units, integrate PA management with local and national cross-sectoral development plans and policies and provide a basis for future bio-regional planning and transnational biodiversity conservation and sustainable use initiatives.

The project is composed of two phases with funds approved by GEF-UNDP only for the first phase. Resources for phase 2 are fully conditional upon a positive evaluation of phase 1 against established benchmarks, and a resubmission of a request for funding of phase 2 to the GEF Council. UNDP CO will directly execute the first phase of the project in coordination with the national implementing agency (Ministry of Communication and Culture) under overall supervision and backstopping of UNDP-GEF. The Government of Algeria is aware of this modality and hence is entering into commitment with UNDP based on rules and procedures for DEX arrangements and the attached first phase budget and described activities.

Approved on behalf of the Government

Date: _____

Approved on behalf of UNDP Algeria:

Date: _____

LIST OF ACRONYMS

ANP	Ahaggar National Park
APR	Annual Project Report
BMU	Biodiversity Monitoring Unit
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CM	Collaborative Management
COP	Conference of Parties
CRSTRA	Centre de Recherche Scientifique et Technique sur les Régions Arides
EIA	Environmental Impact Assessment
GEF	Global Environment Facility
GOA	Government of Algeria
IEC	Information, Education, Communication
INRF	Institut national de la recherche forestière
IUCN	The World Conservation Union
M&E	Monitoring & Evaluation
NGO	Non Governmental Organisation
NP	National Park
PA	Protected Area
PAMB	Protected Area Management Board
PAMU	Protected Area Management Unit
PDF	Project Development Fund
PSC	Project Steering Committee
TNP	Tassili National Park
UN	United Nations
UNDP	United Nations Development Programme
WWF	World Wildlife Fund

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A. SITUATION ANALYSIS

1. COUNTRY AND SITE PROFILE

1. Algeria is the tenth largest country in the world and the second largest in Africa. It extends over an area of 2,381,741 square kilometers, more than 85% of which is Sahara and sub-Saharan desert with slightly less than 150mm rainfall per annum. The country offers mosaic ecological systems featured by inter-penetration of tropical, Saharan and Mediterranean climatic elements demonstrating rich and diverse biological resources. There are no navigable rivers in the Algerian territories, yet there is a coastline of 1200 km embraced by parallel ranges of Atlas Mountains that are relatively fertile, but topographically fragmented from the vast expanse of the Sub-Saharan desert in the south. The main phytogeographical regions in Algeria are divided into Coastal, mountains, arid and semi-arid, and sub-Saharan desert zones.

2. A twin of Algeria's globally significant and fragile ecosystems (Tassili n'Ajjer and Ahaggar National Parks) are respectively situated in the south arid zones of the country in the wilayas of Illizi and Tamanrasset. These national parks cover a total area of 452,000 km², constituting the largest contiguous protected area in Africa and the second largest in the world.¹ The Tassili n'Ajjer NP was created in 1972, declared as a World Heritage Site in 1982 due to its unique collection of pre-historic rock paintings and engravings. In 1986 it was finally enlarged to its current size of 72,000 km² and established as a Biosphere reserve. The adjacent Ahaggar National Park, covering an area of 380,000 km² was formally established in 1987. Due to its vast overall size and relative integrity, the Tassili - Ahaggar complex represents a key biodiversity site in the central Saharan ecosystem and - together with the ecologically connected areas of Fezzan, Air-Tenere and Adrar, in neighbouring Libya, Niger and Mali – it potentially constitutes one of the prime sites in the world for desert biome conservation. Geologically, the region is constituted by the huge Tassili plateau, part of the Ordovician and Devonian sandstone layer and the extensive Precambrian crystalline massifs characterising the Ahaggar area. The numerous Ergs were formed from the great lakes, present throughout the region until the end of the Upper Pleistocene. The highly variable topographic profile features mountains with peaks of up to 3,000 m, such as the volcanic Atakor massif and vast plains at heights up to 1,000 – 1,400m. In the deeper valleys and depressions there are many temporary or permanent water holes or gueltas, three of which are currently being proposed as Ramsar sites.

3. The climate is hyper-arid to sub-arid, characterised by extreme meteorological variability and uncertainty. Mean annual rainfall ranges from 20mm to 100mm, with marked variations across years and seasons. Precipitation may be absent for several years at a given location, while elsewhere sudden rainfall may give rise to localised floods, which may lead in severe cases to drowning of livestock and humans. Mean annual temperature recorded at an altitude of 1,100m is about 20°C but absolute temperatures may range from -7°C to 50°C depending on altitude and season. The ecology of the Tassili-Ahaggar is characterised by the interpenetration of tropical and Mediterranean elements. Following an altitudinal gradient, three vegetational zones are generally recognised: a tropical zone up to approximately 1,800 - 1,900m, a lower Mediterranean zone from 1,900 m to 2,300 - 2,400m and an upper Mediterranean zone from 2,400 to the highest summits.

¹ The size of the Ahaggar National Park is mistakenly reported in the UN list of protected areas as 4,500,000 ha, almost one order of magnitude less than its actual size of 38,000,000 ha.

4. The biodiversity inventory is far from complete and data on the distribution and status of most taxa require urgent updating. Floristic diversity is presently estimated at about 300 species with high levels of endemism, locally reaching up to 50%. Out of the 73 endemic species so far listed, 36 are considered endangered, the most notable being Wild olive (*Olea laperrini*), myrtle (*Myrtus nivellei*) and the palaeo-endemic relict cypress species (*Cupressus dupreziana*), of which only about 240 specimen remain. The 36 or so mammals are mostly typical of arid climates, including 2 recently extinct species (*Oryx gazella*, *Addax nasomaculatus*) and 7 species of bats. Among the higher mammals, several species are reported as globally threatened or endangered in the IUCN Red Data Book, including Barbary sheep (*Ammotragus lervia*), Slender-horned gazelle (*Gazella leptoceros*) and, among the carnivores, Fennec fox (*Fennecus zerda*) and the flagship species cheetah (*Acinonyx jubatus*). The avifaunal component includes a total of 134 species of which 14 endemic to the region and 4 species first recorded during the PDF-B. The Tassili-Ahaggar also supports 12 species of reptiles, 2 amphibians and 4 species of fish, relicts of a more humid past climate.

Socio-economic context

5. The two protected areas occupy relatively large portions of the administrative regions in which they are located, with the Tassili n'Ajjer NP covering 25% of the wilaya of Illizi, and the Ahaggar NP covering 68% of the wilaya of Tamanrasset. Human populations are extremely low, with an estimated 34,000 inhabitants in Illizi with a growth rate of 5.33% and 138,000 inhabitants in Tamanrasset with a growth rate of 4.18%. The recorded high growth rates, well above the national average of 2.15%, are mainly due to the immigration of large numbers of Northerners, attracted by new job opportunities in the expanding local administration. An estimated 150,000 people, about 85% of the combined population of the two wilayas, reside within the boundaries of the protected area. Over 90% of the latter are concentrated in urban areas and smaller administrative centres, where water and at least basic services are available. As a result, the ephemeral average population density of 0.2 / km² recorded for the two wilayas, drops almost to zero in areas outside urban centres. This vast expanse is only sparsely inhabited by nomadic Tuareg, estimated in the 1998 census at 16,842, about 9.8% of the total population of the two wilayas. The number of nomads is reported to have increased over the last decade, due to the return to a nomadic lifestyle by people previously involved in the tourism sector or employed by public enterprises, which have been downsized or dissolved as part of the structural adjustment programme in Algeria.

6. The total active population for the two wilayas is estimated at 44,818 but no official employment statistics are available and only indirect estimates are possible, based on wilaya tax revenues and data from the chamber of commerce. By far the greatest source of employment is the public administration, which excluding the security services provides 39% of jobs. Commercial activities such as trading, crafts and basic services associated with urban centres occupy about 26% of the workforce. Tourism, formerly an important source of revenue was hard-hit by the political instability of the 1990s and only recently has started to pick-up by providing a few hundred jobs. Industry and mining are virtually absent within the protected areas. Agriculture is limited to about 6,000 ha, less than one third of available cultivable land, accounting for about 15% of those employed. An estimated 6% of the workforce is engaged in the informal economy, particularly trading with Mali and Niger, civil construction and the exploitation of natural resources (e.g. production of fuelwood and charcoal).

7. The remaining 14% of the active workforce practises a highly extensive form of pastoralism, constituting the main economic activity in the areas of interest for conservation. Official livestock estimates for the two wilayas are 51,800 goats, 57,700 sheep and 37,600 camels. However, these statistics are likely to be far from accurate given the inherent difficulties of obtaining data on nomadic communities and the long-standing reticence among pastoralists to disclose such information. For example the Kel Ahaggar, the Tuareg confederation based in the wilaya of Tamanrasset, apparently own another 70,000-80,000 camels, which are almost permanently kept in the richer pastures of the plains of Tamesna, Niger and Adagh des Ifoughas, Mali. Similarly, the Kel Ajjer from the wilaya of Illizi have strong economic links throughout the central Saharan region, and regular movements have been documented from the Tassili towards the Air-Tenere, Niger and the Fezzan, Lybia. The Tuareg pastoral system is highly specialised with men essentially involved with camel breeding, while women are generally responsible for rearing of goats, sheep and donkeys, as well as tanning and leatherwork, and the production of butter and cheese. Highly flexible movement patterns allow the pastoral Tuareg, to respond to fluctuations in rainfall and thus opportunistically track plant development. Accordingly, households or 'tents' may aggregate around key resources such as water-pools or rich localised pastures but dissolve into smaller units or even single 'tents' in order to exploit more extensively distributed resources. At times of environmental stress, a few households still subsist largely on camel's milk, an ancient practice that allows independence from freestanding water for relatively long periods. Under such extreme conditions, diversification is also at a premium and where possible some households establish irrigated gardens. A central event in the calendar of many pastoralists is the annual transhumance towards more productive pastures, in many cases to the south and south east of the Algerian border. These expeditions supplement the pastoral economy through trade with neighbouring markets in Libya, Niger and Mali and by allowing weaker camels to be replaced with animals, which have spent one or more seasons in these richer pastures.

Policy context

8. Despite internal political and socio-economic challenges that continue to overshadow sustainable development agenda in Algeria, the Government has set ambitious strategies, policies and plans for economic development aiming at enhancing national welfare and prosperity. The nature of development patterns that took place during the 1970 and 1980s in the form of agriculture and industrial development, urban and infrastructure, and oil production have done their share of environmental damage in the country and have inflicted negatively on the state nature in fragile environments. At the end of the 1970's, the first consequences of the impact of development on environment was apparent and the Algerian Government had to respond by taking series of steps aimed at protecting natural areas, while at the same time supporting sustainable human development. The Government had launched several environmental programs addressing educational concerns, sustainable development problem, renewable energy technologies, poverty alleviation, with specific reference to the Saharan regions.

9. The era at the end of the 1980s and early 1990s, witnessed the establishment of administrative structures-departments charged with environmental protection and natural resources management. Among these are a) the Secretariat of State for Environment within the Ministry of Interior, Local Communities and Environment; b) General Directorate of Forestry and Forest Conservation Offices at the wilaya levels; c) National Agency for Nature Conservation (ANN); d) High Commissariat for Steppe Development (HCDS); e)

Commissariat for Development of Agriculture in Saharan Regions (CDARS); and f) National Environmental Trust Fund.

10. At the national level, the government embarked by setting up policies and legal/regulatory frameworks for the protection and management of the environment: a) the National Environmental Policy-1980s; b) the Environment Act; c) the Forestry Code; d) the Water Resources Code; e) the Game Act; f) the Law for the protection of threatened animal and plant species; g) the law regulating hunting; h) the Framework Law on Land Tenure; i) Standard Statute for the creation of Nature Reserves and National Park. At the international level, the Government of Algeria was among the first few countries in Africa and the Middle East to ratify regional and international conventions related to biodiversity and sustainable development (African Convention on the Conservation of Nature and Natural Resources, CBD, CCD, Ramsar, etc.).

11. At the international level, Algeria has entered a number of co-operative agreements and legal obligations affirming its responsibilities for conserving biodiversity, including the World Heritage Convention in 1974, the Ramsar Convention in 1983, the UNESCO Man and the Biosphere Programme in 1991 and the CBD in 1995. The first Algerian forestry code and conservation legislation came into existence in 1912 and on this basis the French administrative authorities set up a series of national parks. Following independence, a legislative framework for biodiversity conservation was established in 1983 as part of the National Strategy for the Conservation of Fauna. Under Law No. 83-05 on the Protection of the Environment enabling the designation of protected areas, ten national parks have so far been declared including the Tassili n'Ajjer NP and the Ahaggar NP. In order to fulfil the provisions of the CBD, a National Biodiversity Action Plan is currently being prepared with UNDP/GEF assistance, with the aim to provide an integrated framework for biodiversity conservation based on wide stakeholder consultations. No transnational biodiversity conservation initiatives have so far been implemented by Algeria, except for some preliminary investigations in the 1990s focussing on El Kala NP and adjacent areas to Tunisia.

12. In the project area, the Government has demonstrated increasing attention to conservation issues through successive enlargements of the land under protection - from 3,000 km² when the Tassili N'Ajjer was first declared as an historic monument in 1972, to an area of 452,000 km² presently covered by the two national parks. In a drive to establish a presence within these protected areas, more than 600 permanent park staff have so far been recruited from the local communities. This very positive dividend for conservation should be viewed against the backdrop of a wider national policy to develop the southern part of the country and assert strong control over its resources and territory. The creation of the independent states of Algeria, Niger and Mali, by limiting to some extent the free mobility of people and goods within these former French territories, fuelled widespread unrest in the Central Saharan region. In neighbouring Niger, during the early 90s foreign projects were targeted, and the WWF-IUCN initiative in the Air-Tenere, the last large-scale conservation project in the region, suffered several casualties. In Algeria, state policy towards the Tuareg has aimed at modernisation and assimilation. The Amenukal, traditional chief of the Tuareg, has been appointed to the National Assembly and national institutions have been decentralised through the establishment of the two wilayas. State intervention has also assisted in the gradual sedenterisation of the nomads and the dismantling of unacceptable forms of economic exploitation such as slavery.

13. In addition, the Government initiated consultation frameworks with civil society participation including support to NGOs, community-based organisations and regional communication centres in the areas of environment and natural resources (Law of December 1990 on Community Associations), and the establishment of Higher Council for Environment and Sustainable Development (HCESD). The HCESD is placed under the chairmanship of the Prime Minister comprising membership from six prominent members of civil society, among which NGO executives together with representatives of the Government. In addition, numerous wilayas and municipalities have set environment and sustainable development councils with representation from traditional authorities and local associations.

14. The UN strategic development vision is fully consistent with the Country Co-operation Framework, which covers efforts in four major areas dealing with poverty alleviation, upstream governance, environmental management and gender equality. In order to ensure a concerted approach to UNDP's programming in the country, these four areas have also become the main pillars of UNDP's future actions as defined in the Strategic Result Framework. Implementation of UNDP programs within these areas is complementary to national programs and is conceived within the framework of strong partnerships with traditional partners such as the government and several other partners including NGOs, CSOs and the private sector. As a result of the UNDP processes in Algeria has fostered a greater sense of cohesion among the UN family to respond and complement sustainable development agenda in the country. The Tassili and Hoggar project by addressing conservation of biodiversity and accommodating flexible prerogatives for sustainable use of natural resources and collaborative management of fragile desert ecosystems will be enhancing the welfare of the poor within the overall framework of sustainable development of the south.

15. UNDP-GEF and the Government of Algeria have jointly invested in project preparation with resources made available through a PDF-B grant. Under the co-ordination of a cross-sectoral Steering Committee, an initial set of stakeholder consultations was followed by preparatory studies and systematic data collection. A project formulation workshop involving all key stakeholders was held in Tamanrasset during July 2000 and results validated in a national workshop held at Illizi during January 2001.

16. During the project preparation period, UNDP-GEF and the Government of Algeria, under the co-ordination of a cross-sectoral Steering Committee, have initiated a set of stakeholder consultations engaging key representatives of local NGOs and civil society - including more than 100 local associations and cooperatives – and selected members of relevant wilaya administrative and technical services. All main stakeholders were involved in the project formulation workshop held in Tamanrasset during July 2000 and the national validation workshop held at Illizi during January 2001. A public participation strategy for the project is outlined in Section F.

17. Total costs compare favourably with other projects supporting the management of protected areas, especially in consideration of the vast size of the Tassili n'Ajjer NP and the Ahaggar NP. By vesting ownership of the conservation initiative in the hands of local communities, the long-term responsibility of conservation will be shared and the costs of policing activities accordingly reduced thus ensuring that project investments are cost-effective.

18. From a GEF context, the project falls within the strategic considerations of the GEF focal area on biodiversity and the GEF Operational Programme dealing with Arid and Semiarid

Zone Ecosystems. It is also of direct relevance to the issue of land degradation as stipulated in Article 3 of the GEF instrument. The project would be consistent with COP4 and 5 guidance on employing an ecosystem approach promoting conservation and sustainable use across vast, arid and vulnerable landscapes. In particular, it satisfies eligibility criteria by: (i) invoking a highly participatory management strategy; (ii) being country-driven, initiated by Algerian authorities in accordance with their policy commitments; (iii) securing co-financing to share the costs of executing conservation measures and achieving the sustainable development baseline; and (iv) providing for long-term financial and institutional sustainability. The GEF would finance the agreed incremental costs of attaining biodiversity conservation objectives. The Government of Algeria ratified the Convention on Biological Diversity in 1995, and the project meets CBD objectives in several ways, fulfilling requirements contained within Articles 6 (General Measures for Conservation and Sustainable Use), 7 (Identification and Monitoring), 8 (In Situ Conservation), 10 (Sustainable Use Management), 13 (Conservation Awareness), and 17 (Information Exchange).

19. Current UNDP/GEF initiatives for which complementarities would be optimised and strong communications maintained during implementation, include: (i) the biodiversity enabling project leading to national Biodiversity Strategy and Action Plan for Algeria; (ii) the biodiversity conservation and sustainable natural resource management project which aims to promote the participation of civil society through the partnership with the CNOA-RIOD network of associations; (iii) the regional project on participatory management of plant genetic resources in the oases of the Maghreb. In addition, the project will make all efforts to benefit from the World Bank/GEF experiences in El-Kala National Park, Algeria and the Natural Resources Management in Aïr Ténéré Reserve, Niger for which a PDF-B is currently underway.

Institutional context

20. Overall responsibility for protected areas in Algeria rests with the Ministry of Agriculture except for the Tassili n'Ajjer NP and Ahaggar NP, which were established and have remained under the jurisdiction of the Ministry of Communication and Culture. The recently established Ministry of Environment also shares responsibilities for biodiversity conservation and guidelines defining its future mandate should be developed in the forthcoming National Biodiversity Strategy and Action Plan. Law No. 83-458 stipulates that a resident park director appointed directly by the Minister administers each national park. The park director is required to co-ordinate closely with a cross-sectoral council composed of representatives from all concerned ministries and local authorities but all decisions are ultimately subjected to the approval of the supervising ministry.

21. In the project area, the management of biodiversity has traditionally relied on the highly flexible normative framework provided by Tuareg institutions under the overall authority of the Amenokal. The dominant noble tribes have jurisdiction over large territories, usually divided among vassal tribes and further sub-divided into smaller areas attributed to individual tenants. The latter are vested with one or more - not necessarily exclusive - usufruct rights covering grazing, hunting, agriculture and other forms of biodiversity utilisation. Depending on prevailing ecological conditions, the validity of pre-established rights may temporarily cease and corresponding land rent or taxes may be lifted or renegotiated. Similarly, specific indemnities are determined for different types of violations and flexibly imposed under the jurisdiction of the Amenokal. Usufruct rights are generally transferred to kinsmen following matrilineal tribe membership rules.

22. The non-governmental organisations movement in the domain of natural resources is a recent development in Algeria and few NGOs are actively involved in the conservation sector in the Tassili – Ahaggar region. A notable exception is the Amis du Tassili, founded by a prominent group of archaeologists, naturalists and ex-management staff of the Tassili n’Ajjjer NP. This NGO has successfully mobilised public and private funds to support conservation initiatives in the wilaya of Illizi, as well as actively contributing to the current GEF initiative. In the wilaya of Tamanrasset the Association Timidoua, a member of CNOA/RIOD - a national level umbrella group of NGOs active in the environmental field - will soon be receiving support from a UNDP/GEF funded project aiming to develop NGO capacity. The only international NGOs currently active in the Tassili-Ahaggar are IUCN involved with a specialised study on cheetah and WWF, which is leading a status review of wetland sites.

2. PROBLEM TO BE ADDRESSED – THE PRESENT SITUATION

Threats to Biodiversity

23. Extreme dry-land ecosystems, characterised by climatic variability and unpredictability across time and space, are understood to be governed by what has been defined as non-equilibrium dynamics. Accordingly, resource management systems such as those employed by the Tuareg communities, rely on flexible livelihood strategies and institutional arrangements geared to deal with ecological and seasonal uncertainties and the fragile environment. The level of threat on biodiversity in the Tassili-Ahaggar region may seem relatively low due to low population density and the inaccessibility of the region. However, such fragile environments are uniquely vulnerable to adverse externalities. The key threats so far identified may be summarised as follows:

- ✍ Overexploitation of vegetation due to the commercial production of fuel wood and charcoal, the collection of medicinal and forage plants and localised overgrazing;
- ✍ Poaching, particularly through indiscriminate hunting of large mammals using vehicles and automatic weapons;
- ✍ Habitat modification, mainly due to inadequate waste management and pollution control in urban impact zones, inappropriate agricultural techniques, infrastructure development, and unsustainable tourism practices.

24. The principal root causes underlying the threats to globally significant biodiversity in the Tassili – Ahaggar region fall into three main categories (see Annex 3):

- ✍ Inadequate institutional capacity and legal framework to implement biodiversity conservation initiatives, enforce legislative and regulatory measures and engage local communities in a collaborative management process;
- ✍ Insufficient involvement of local communities in the conservation and sustainable use of biodiversity due to the progressive weakening of traditional governance and economic systems and insufficient private sector diversification into new, environmentally compatible, economic sectors;
- ✍ Conservation objectives weakly inscribed on the local development agenda, due to poor awareness about biodiversity resources and their utilisation, the lack of technically sound management plans and ineffective policies for the development of alternative livelihoods.

Baseline

25. The baseline course of events is described below. The incremental cost assessment summarises information on baseline costs projected over 8 years (Annex 4).

26. Institutional capacity: Despite the priority accorded to conservation in the wilayas of Illizi and Tamanrasset, the existing management structures of the Tassili n'Ajjer NP and Ahaggar NP have very limited effectiveness. This is a reflection of the sheer size of the protected areas as well as a result of the following key institutional constraints: (i) the mainly cultural / archaeological profile of existing management structures; (ii) inadequate legislative framework and weak law-enforcement prerogatives; (iii) lack of biodiversity training among existing personnel; (iv) insufficient number of technical staff specialised in biodiversity management; (v) insufficient field-presence of staff and absence of basic infrastructure and equipment. In order to secure biodiversity conservation functions within the protected areas, the existing management structures need to be operationalized and reoriented towards biodiversity conservation and management. In the baseline situation this would be unlikely to occur given the significant one-time investments required in institutional capacity building, staff training, infrastructure and equipment.

27. Collaborative management: Traditional resource management systems and institutions featuring the in-built flexibility that helps cope with perennial ecological uncertainties still exist, particularly among the nomadic pastoral Tuareg. However, in many cases they have been devalued or weakened by state policy, or are simply ignored by outsiders because they are not communicated and hence remain unrecognised. On the other hand, rising commercial interests behind the utilisation of certain biodiversity components are undermining the control that local resource users within the Tassili – Ahaggar have over their environments. Many plant species are harvested for productive purposes and, although data on harvest rates are incomplete or not yet available, for some species they are probably already unsustainable.² This is clearly the case for large mammals – though hunting pressure on certain species is known to be largely due to outsiders.³

28. Current policies under the baseline scenario are typically product-oriented and engineered from the top-down. Such policies are unable to address the resource tenure and usufruct related constraints, which are effectively weakening the long-standing conservation practices of local communities. In order to reverse this trend, substantial policy and legal changes are required. Interventions should be process-oriented, encouraging institutional flexibility and opening the way for co-operation between stakeholders and specialised agencies to fend off external threats to natural resources. Through participatory processes,

² The most common species harvested for fuel wood and charcoal production are *Acacia raddiana*, *Acacia tortilis*, *Calligonum comosum* and *Tamarix spp.* Among the 100 or so active merchants in Tamanrasset current market prices are 450 dinars per fuel wood load and 500 dinars for 50 kg of charcoal. Commercially harvested forage species include *Myrtus nivelli*, *Forga eplants* and *Aristida pungens* or "Drinn". Medicinal species are actively traded as far as Mali and Niger, the most valuable being high altitude endemic species such as *Artemisa judaica*, which is sold for up to 7,500 dinars per gram.

³ Hunting pressure is threatening the local extinction of cheetah (*Acinonyx jubatus*) and Slender-horned gazelle (*Gazella leptoceros*) as well as severely reducing populations of Barbary sheep (*Ammotragus lervia*) and Dorcas gazelle (*Gazella dorcas*). Ostrich (*Struthio camelus*) and two large mammal species, *Oryx gazella* and *Addax nasomaculatus* have become extinct.

collaborative management initiatives should lead to devolution and to new forms of plural and negotiated governance, which would ensure the conservation of biodiversity and safeguard the rights and livelihoods of local resource users.

29. Ecotourism: According to government statistics, tourists visiting the Tassili n'Ajjer and Ahaggar national parks in 1992 were estimated at 19,000 but dropped virtually to zero in the following years as Algeria underwent a long period of political instability. Recently tourist numbers have started to rise as law and order fundamentals improve in the country. With the possibility of receiving international flights at airports in Djanet and Tamanrasset, the Tassili-Ahaggar region has a high tourism potential and may provide a future gateway to a wider Central Saharan tourist circuit. However, several barriers impede the development of the sector as a conservation compatible livelihood activity: (i) absence of guidelines for environmentally compatible site development and mitigation of adverse ecological impacts; (ii) a lack of visitor management capacities and adequately trained guides; (iii) weak skills at local level and limited sharing mechanisms ensuring maximal benefits to local communities; (iv) inadequate site-infrastructure and interpretation facilities; (v) weak demand-side fundamentals due to poor positioning and marketing of a nature-based tourism product. Under the baseline situation the tourism sector would tend to be managed according to the criteria and commercial interests of external tour operators. The removal of existing barriers would allow conservation objectives to be realised through the development of nature-based tourism as an innovative sector of the local economy allowing flexible exit and re-entry into the pastoral sector.

30. Information, Education, Communication (IEC): No environmentally oriented awareness activities are presently carried out in the region, except for sporadic programmes in the local radio. On the other hand, numerous educationalists serve in primary and secondary schools and a core of professional journalists are active in the local and national press and media. Relatively large urban populations and an average 73% school attendance rate, though below the national average, indicate a sizeable potential target audience for systematic IEC programmes. However, projected baseline investments would occur at a low background level, and need to be intensified in order to stimulate support for biodiversity conservation among civil society, especially where there are tradeoffs with development.

31. Biodiversity Monitoring and Evaluation: Only three institutions are presently collecting longitudinal, biodiversity-related data in the Tassili-Ahaggar region. The National Forestry Research Institute (INRF) is monitoring the relict population of Tarout cypress (*Cupressus dupreziana*) and testing techniques for its reintroduction as well as conducting systematic botanical surveys in an attempt to track major habitat changes. However, the scope of INRF monitoring activities is constrained by a small annual budget, few qualified staff and little in the way of equipment. The Tamanrasset unit of the National Meteorological Office operates a network of 45 automatic weather stations distributed throughout the region. A NOAA remote-sensing unit, deployed since 1991 with British assistance, is being used in collaboration with the University of Reading, UK, for monitoring of ecological conditions in the desert locust recession area. However, the vegetation indices so far developed by this programme are still of limited applicability. The National Research Centre for Arid Regions (CRSTRA), though located outside the two wilayas is active in conducting ecological studies and applied scientific research in the Tassili-Ahaggar region. Aside from the studies on cheetah and wetland sites, carried out with the support of IUCN and WWF respectively, no further investment in targeted research or biodiversity monitoring is foreseen under the baseline

scenario.⁴ There is an urgent need to build capacity for the establishment of a long-term, “management-driven”, monitoring programme tracking trends in biodiversity resources and their utilisation through site-specific monitoring programmes in each protected area.

32. Management planning: A management plan covering both the natural and cultural resources of the Tassili n’Ajjjer NP was produced with UNESCO support in the mid 1980s but so far implementation has been extremely limited. No management plan presently exists for the Ahaggar NP. At wilaya level, activities are mostly programmed and budgeted on a yearly basis and no formal development plans over longer time horizons have yet been formulated. Key projects are often planned directly by central ministries and other national institutions, with apparently little wilaya involvement or foreknowledge. Hence, under the baseline situation there would be limited scope for the integration of conservation objectives into development planning and general environmental management. In order to address this weakness, it is crucial to develop a planning process which relies upon two complementary mechanisms: (i) the elaboration of adaptive management guidelines based on continuous learning and negotiation rather than blueprints or prescriptions, and (ii) the incorporation of these guidelines into a formal management plan integrating biodiversity conservation with wider development planning at wilaya and national levels.

33. Eco-development and sustainable livelihoods: Over the coming 8 years, the baseline scenario would see considerable investment mainly by government, within the two national parks. The vast majority of such investments would be allocated to development rather than environmental management or biodiversity conservation. A sustainable livelihood strategy should be adopted to maximise positive contributions to biodiversity conservation and mitigate any negative impacts. By supporting newly emerging decentralised government bodies and NGOs, planned investments may be reoriented or fine-tuned and additional resources leveraged to improve conservation-specific linkages.

B. PROJECT STRATEGY AND OBJECTIVES

34. The project aims to protect a representative sample of the biodiversity of the Central Saharan region. This will be achieved through the conservation and sustainable use of globally significant biodiversity in the Tassili N’Ajjjer and the Ahaggar National Parks. Given the vastness of the two protected areas and the specificity of desert ecosystems, a mixed strategy will be adopted. In sites of key biodiversity resources, more intensive management will be supported through the clustering of activities while, over the rest of the area, a more extensive form of management will be supported through simplified streams of activity – intervention being limited in some cases to supporting PAMU presence. Priority will also be given to ecological corridors in order to ensure at least stepping-stone connectivity between areas of key resources. This adaptive management strategy, emphasising flexibility and movement, is tailored to the ecological imperatives of desert ecosystems, as reflected by the survival strategies and movement patterns adopted by both animals and humans in such extreme environments.

35. During the course of the PDF-B, key biodiversity sites in the Tassili-Ahaggar region were assessed as suitable areas for the demonstration of management techniques to be

⁴ The only standing long-term research agreement involving the national parks, aims at a cultural heritage study conducted since 1994 in collaboration with the Frobenius Institute of Frankfurt, Germany.

replicated and applied on a wider scale. According to criteria based on representativeness, spatial extent, integrity and cost effectiveness, six core areas have been identified, collectively covering a total of 45,200 km², i.e. 10% of the total area of the combined Tassili and Ahaggar National Parks (see schematic map, Annex 2).

- ✗ The Taessa massif (~600 km²), a high elevation mountainous area in the Atakor range, situated about 60 km northwest of Tamanrasset, has long been identified as a local biodiversity hotspot, particularly rich in endemic plant species (Ozenda, 1958; Quézel, 1962); at present the site is served by 17 rangers operating from a single outpost.
- ✗ The Tefedest massif (~4,800 km²), situated about 250 km to the north of the Atakor mountain range, characterised by deep valleys and an extensive network of permanent water-holes or gueltas, represents an important refuge for large mammal species; at present the site is served by a total of 25 rangers operating from three outposts.
- ✗ The Mouyidir plateau, (~10,000 km²), is an almost uninhabited region with vegetation localised in deep valleys and floodplains including an arborescent species of Euphorbia (*Euphorbia balsamifera*) previously unrecorded in the Central Saharan ecosystem (Ozenda, 1958; Quézel, 1962; Quézel & Santa, 1962); at present the site is served by 112 rangers, half of which on active duty, operating from five outposts.
- ✗ The Serkout region (~25,000 km²), situated 300 km to the east of Tamanrasset, a vast region straddling the border of the Ahaggar and Tassili National Parks, is of critical importance for one the last viable populations of North African cheetah (*Acyonix jubatus*) (IUCN, 2000); at present the site is served by 56 rangers operating from four outposts in the ANP and about 20 rangers operating from two outposts in the TNP.
- ✗ The Meddak plateau (~3,600 km²), situated in the Tassili National Park, at an altitude ranging between 1,400 and 2,000 metres, is a prime sanctuary for the palaeo-endemic relict cypress species (*Cupressus durpeziiana*), with more than 230 specimens so far recorded in the area (Abdallah Sakhi, pers. comm.); no outposts have yet been established in this site.
- ✗ The erg of Tihoudayene (~1,200 km²), situated about 300 km northwest of Djanet, is characterised by important populations of *Calligonum azel* and *Calligonum calvescens* (Bedrani & Sakhi, 2000); no outposts have yet been established in this site.

A time horizon of eight years has been selected for project implementation with a first, shorter preparatory phase of three years and a longer second phase of five years. The former will be largely devoted to procedures aimed at meeting legal, staff and planning prerequisites as well as completing baseline studies and establishing a collaborative management framework. The second phase will focus on delivering project final outcomes. A number of benchmarks are built into the log-frame as a means of evaluating project performance before graduation between phases (Annex 5).

1. EXPECTED END OF PROJECT SITUATION

36. The following key results are expected to have been achieved by the end of the project:

- ✗ Permanently staffed, technically autonomous and financially sustainable Protected Area Management Units are established in the Tassili n'Ajjer NP and the Ahaggar NP, with clear mandates and appropriate capacity to ensure the long-term protection and

sustainable use of biodiversity, based on well-defined planning, monitoring and law enforcement prerogatives

- ✂ The protected areas are collaboratively managed, by involving all key stakeholders in the adaptive, equitable and sustainable use of biodiversity resources and the development of innovative, environmentally compatible, economic activities which meet livelihood needs.
- ✂ The protected areas are firmly inscribed as the operational framework for local planning and development activities and recognised as leading sites in the Central Saharan region to catalyse the implementation of future transnational biodiversity conservation and sustainable use initiatives.

2. TARGET BENEFICIARIES

37. Global communities would benefit from option, existence, and recreational and indirect use values secured by removing threats to the ecological integrity of globally significant protected areas. Similarly, future generations of Algerians will benefit from the foreclosure of threat to an important natural heritage at a time when the country was unable to unilaterally shoulder the incremental costs of its management. At the local level, communities will be direct beneficiaries of a strategy that links conservation activities with the development of sustainable livelihoods. The project will enhance the menu of future livelihood options removing barriers to the development of ecotourism and sustaining productive and consumptive use values for economically important biological resources. Secured funding for park infrastructure and operations would benefit the national and local level protected area management institutions; communities and other stakeholders in conservation outcomes, by increasing their capacity to manage protected areas and protect biodiversity.

3. PROJECT OUTPUTS, INDICATORS AND ACTIVITIES

38. The Logical Framework given in Annex 5 provides a detailed list of activities, tasks, and indicators, means of verifications and assumptions and risks for the project. Seven key outputs are proposed, with the GEF financing the agreed incremental costs of conservation:

- [1] Building institutional capacity and development of basic infrastructure.
- [2] Implementation of collaborative management agreements involving key stakeholders.
- [3] Promotion of environmentally compatible and non-intrusive ecotourism.
- [4] Conservation awareness through targeted Information, Education, Communication programmes.
- [5] Establishing a biodiversity monitoring system.
- [6] Development of management plans based on adaptive management guidelines.
- [7] Supporting eco-development and sustainable livelihoods

Output 1. Institutional capacity for field conservation enabled through legal, human resources and infrastructure development.

39. The GEF would provide funds for the amendment, development and enactment of legislation strengthening the institutional capacity of the Tassili n'Ajjer and Ahaggar Protected Area Management Units (PAMUs). The aim is that biodiversity conservation becomes the chief mandate of the PAMU, alongside the preservation of cultural heritage. Effective legal instruments should be put in place for the implementation of this wider mandate based on well-defined planning, monitoring, and law enforcement prerogatives. The principal requirements are that existing legal statutes for the two parks are either revised or superseded by new executive decrees, and that specific bylaws are newly formulated and enacted for each protected area.⁵ The final body of texts, by addressing gaps in existing legislation and resolving inter-jurisdictional overlaps, should collectively enable the following: (i) the redefinition of the PAMU mandate, functions and organisational chart, reflecting the new, biodiversity-related, staff profiles and responsibilities; (ii) innovative legal procedures allowing the PAMU to enter into effective collaborative management agreements with other parties such as stakeholder communities and the private sector; (iii) clear regulations for the licensing of economic activities within protected areas and standardisation of monitoring, site inspection and environmental auditing protocols; (iv) extension of police powers to selected PAMU staff; (v) institutionalisation of income-generating mechanisms such as visitor and concession fees in order to supplement the PAMU budget and assist in covering the long-term recurrent costs.

40. The development of PAMU human resources will be achieved through three main activity streams. First, by rendering operational the 600 permanent junior staff already on the PAMU payrolls and deployed in the field. The latter, having been recruited from the local communities, generally have detailed knowledge of biodiversity and traditional resource use systems. Training should therefore be mainly on-the-job and concentrate on management methods, monitoring, law enforcement, reporting, and administration. Second, by re-orienting management and technical PAMU staff through the recycling of existing personnel and the recruitment of staff, specialised in biodiversity conservation. Current senior and middle-ranking personnel tend to have reasonable administrative skills but limited technical skills and field experience. Formal and informal training should focus on biodiversity assessment, monitoring and management, as well as participatory and conflict resolution techniques. Finally, strong operational links should be established within the PAMU through decentralisation and redeployment of management and technical staff into the field - towards the sub-headquarters and outposts. The human resources budget would cover the following activities: (i) on-the-job training by 4 specialised trainers operating in the field throughout the project; (ii) semi-annual in-service training workshops to discuss lessons and resolve problems; (iii) recruitment of a further 20 technical and management staff; (iv) study tours to other protected areas in North Africa and the Middle East (4 study tours for 10 participants); (v) participation in regional PA management training programmes (20 participants); (vi) overseas attachments (6 participants for 3 months).

41. In order to strengthen PAMU field operations the project will supply basic infrastructure and equipment, financed 34% by the GEF and 66% by the GOA. This would include: (i) completion of Tassili n'Ajjer NP headquarters and construction of headquarters for the Ahaggar NP; (ii) design and construction of 5 sub-headquarters and 63 outposts; (iii) partial delimitation and sign-posting of 3,000 km of tracks; (iv) establishment of a radio-communication system linking the headquarters, sub-headquarters, outposts and mobile

⁵ Statute of Tassili n'Ajjer NP, decree N.72-168 of 27/7/1972, superseded by decree N. 98-88 dated 21/4/1987. Statute of Ahaggar NP, decree N.87-231 dated 3/11/1987.

units; (v) procurement of vehicles, office equipment and other standard technical and scientific equipment.

42. The recurrent costs of PA operations, including personnel, infrastructure and equipment maintenance - additional to costs, already covered by existing PAMU budgets - will be shared by the GEF and the GOA as follows: year 1, GEF 80% and GOA 20%; years 2-4, GEF 50% and GOA 50%; years 5-6, GEF 30% and GOA 70%; year 7, GEF 10% and GOA 90%; year 8, GOA 100%.

Activities:

Phase 1	<ul style="list-style-type: none"> 1.1 Legal redefinition of PAMU mandate, functions and organigram 1.2 Design of legal procedures to allow the PAMU to enter into collaborative management agreements 1.3 Definition of legal procedures for licensing and monitoring of economic activities within PAs 1.4 Extension of police powers to selected PAMU staff 1.5 Formal and on-the-job training of junior personnel to operationalize policing, intelligence gathering, enforcement and reporting functions 1.6 Recruitment of additional management staff and decentralisation / redeployment towards sub-headquarters 1.7 Strengthening of operational capacity and participatory planning skills within PA staff cadre 1.8 Study tours for technical staff to protected areas in the region 1.9 Produce detailed plans for infrastructure development 1.10 Construct park headquarters 1.11 Procurement of vehicles and basic office and technical equipment
Phase 2	<ul style="list-style-type: none"> 1.12 Development and endorsement of PA bye-laws and regulations 1.13 Sensitise PA staff to best practices in PA management by sponsoring attendance at regional workshops and overseas attachments 1.14 Implement participatory management, monitoring and law enforcement procedures 1.15 Construct PA sub-headquarters, outposts, and interpretation facilities and realise remaining infrastructure (tracks, signposting etc.) 1.16 Realisation of radio-network linking PAMU headquarters, sub-headquarters, outposts and mobile units 1.17 Institute equipment maintenance operations 1.18 Ensure additional costs of new staff and equipment maintenance are absorbed into PAMU budget 1.19 Institutionalisation of income-generating activities to supplement the PAMU recurrent budget

Output 2. Collaborative management of protected areas is operational based on the adaptive, equitable and sustainable use of biodiversity resources.

43. The project will support a processual approach, enabling the development of new forms of governance, based on flexible and plural legal frameworks and institutions that are rooted in an appreciation of the consequences of ecological uncertainty in desert ecosystems. Flexible movement, opportunism and responsive livelihood are central to the proposed adaptive management framework, whereas conventional management methods based on parameters such as static carrying capacities and fixed resource units are considered inappropriate in such extreme environments.⁶ Ultimately, open-ended informal processes should lead to formal collaborative management agreements and partnerships, reinforced by supportive tenurial rights, policies and legislation. Such processes, strongly based on 'learning by doing' and tailored to fit the unique needs and opportunities of different contexts, will be advanced through an interdisciplinary collaborative management (CM) team. The latter will be composed of a technically competent, and dedicated group of professionals including biodiversity and participatory appraisal specialists and experienced facilitators. The CM team will assist PAMU staff with assessing the feasibility of possible partnerships, as well as with the preparation, development and implementation of pilot agreements. The CM team will also provide extensive training for PAMU staff and a selected number of actual or potential stakeholders, as a means of advancing the process towards more complex management agreements and larger areas of application. The GEF will cover the operational costs of fielding the CM team including salaries, per diem and transportation.

44. The following key steps will generally be required for the successful negotiation of collaborative management agreements: (i) identification of territory or set of resources; (ii) evaluation of the range of functions and sustainable uses provided; (iii) stakeholder analysis; (iv) determination of functions, responsibilities, benefits and rights of stakeholders; (v) formulation of management priorities and/or site management plan; (vi) establishment of conflict-resolution procedures for implementing collective decisions; (vii) agreement on specific rules for monitoring, evaluating and reviewing the partnership. Biodiversity conservation and sustainable use objectives should remain central to the establishment of CM agreements. However, the range of possible initiatives, which may be supported by the project, is deliberately left open so that true stakeholder participation and the identification of site-specific solutions are not foreclosed. The consultative process initiated during PDF-B implementation, has so far produced the following non-exhaustive set of proposed guidelines:

- ⚡ The establishment of concessions over specific territories or resources whereby a limited number of certified local users can extract a limited quantity of fuel wood, medicinal or forage plants for domestic and/or commercial use;
- ⚡ Development of micro-plans to strengthen protection of key biodiversity resources, such as integrally protected core areas, through improved rangeland and water point management, a compensation scheme for cheetah predation on livestock and enhanced veterinary services;

⁶ For example, in neighbouring Niger, the introduction of additional water points, in the form of government-operated boreholes and concrete-lined open wells, has worked in some areas to the disadvantage of the local Tuareg, by facilitating access to previously excluded Fulani pastoralists; as a result the local Tuareg requested the closure of new water points (Meththa et al., 1999).

- ⚡ Support to micro-enterprises involved with cheese production, leather processing and camel breeding through the removal of barriers such as limited know-how, access to credit and marketing constraints;
- ⚡ Support to local ecotourism and other sustainable livelihood initiatives as discussed under outputs 3 and 7.

45. A key outcome of the CM process will be the creation of conservation-enabling institutions, which confer strong authority and status on legally sanctioned communal natural resource regimes. Different types of property regimes and resource tenure systems co-exist and overlap in the Tassili-Ahaggar region, with more open access being prevalent in drier zones or periods and more exclusive forms of tenure in wetter zones or periods. Hence, the project will support local management committees with robust conflict mediation systems, low transaction costs and rooted in existing social networks, such as those administered by community elders. GEF funds will provide for intra-community forums, bringing together community members and representatives from community-based groups in order to facilitate informal exchanges and resolve outstanding problems. Periodic general meetings of representatives from different management committees will be convened to share management experiences and ensure that management operations are co-ordinated. Selected representatives from local management committees will also be associated as members of the Protected Area Management Board (PAMB), which includes all key stakeholders in the management of the protected areas.

Activities:

Phase 1	<p>2.1 Establish and mobilise interdisciplinary Collaborative Management (CM) team.</p> <p>2.2 Train PAMU social outreach teams in participatory learning and action skills</p> <p>2.3 Negotiate pilot CM agreements based on: (i) identification of territory or set of resources; (ii) evaluation of the range of functions and sustainable uses provided; (iii) stakeholder analysis; (iv) determination of functions, responsibilities, benefits and rights of stakeholders; (v) formulation of management priorities and/or site management plan; (vi) establishment of conflict-resolution procedures for implementing collective decisions; (vii) agreement on specific rules for monitoring, evaluating and reviewing the partnership.</p> <p>2.4 Accord usufruct and stewardship rights to local communities over areas and/or resources stipulated in CM pilot agreements</p> <p>2.5 Formalise, publicise and initiate implementation of CM pilot agreements</p> <p>2.6 Support functioning of PAMB</p>
Phase 2	<p>2.7 Support the implementation of formalised CM agreements</p> <p>2.8 Provide further training for PAMU social outreach staff and selected stakeholders, as a means of forwarding the CM process towards more complex management agreements and larger areas of application following procedures detailed under activity 2.3</p> <p>2.9 Build-capacity of local conservation-enabling institutions with strong authority on legally-sanctioned communal natural resource regimes</p> <p>2.10 Convene regular intra-community forums to facilitate inform exchanges</p>

	<p>and resolve outstanding problems between community-based groups</p> <p>2.11 Convene periodical meetings between local management committees to share experiences and co-ordinate management activities.</p> <p>2.12 Continue to support the functioning of the PAMB and attendance by local management committee representatives</p>
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Output 3. Ecotourism is managed to demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs.

46. In order to demonstrate the function of ecotourism as a conservation enhancing livelihood sector, the GEF will provide funds for the removal of barriers summarised in paragraph 18, by supporting the following main streams of activity: (i) formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services; (ii) sensitise tourism operators, potential investors and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism; (iii) conduct training programmes for interpretation and guiding services; (iv) provide technical assistance and micro-credits to facilitate local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services (e.g. eco-centres, crafts, trekking tours, etc.); (v) strengthen the capacity of the PAMU and other regulatory bodies to license ecotourism activities according to best practice guidelines and ensure full compliance with procedures set out in the licences and related EIAs; (vi) design and implement, in collaboration with the private sector and other stakeholders, a comprehensive marketing strategy to promote the Tassili - Ahaggar as a leading ecotourism site in the Central Saharan region.

Activities:

Phase 1	3.1 Sensitise tourism operators, potential investors and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism
	3.2 Conduct training programmes for interpretation and guiding services and the management of visitor interpretation facilities
	3.3 Provide technical assistance and micro-credits to facilitate local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services
	3.4 Strengthen the capacity of the PAMU and other regulatory bodies to monitor ecotourism activities according to procedures set out in the licenses and related EIAs
	3.5 Design in collaboration with the private sector and other stakeholders, a finely targeted marketing strategy.
Phase 2	3.6 Formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services
	3.7 Strengthen the capacity of the PAMU and other regulatory bodies to license ecotourism activities according to procedures set out in the best practice guidelines
	3.8 Continue supporting local, private sector initiatives in obtaining usufruct

	rights and leases for the development and operation of ecotourism facilities and services
	3.9 Support the implementation of a marketing strategy to promote the Tassili Ahaggar as a leading ecotourism site in the Central Saharan region.

Output 4. Information Education Communication (IEC) efforts are building local and national constituencies for biodiversity conservation.

47. GEF funds would be drawn upon to formulate and implement a cohesive and finely targeted IEC programme. The main objective would be to stimulate local and national advocacy for biodiversity conservation by raising the level of public awareness and involvement in the conservation and management of the protected areas. The IEC programme should also deliberately influence policy makers and other key players by highlighting the economic significance of the PAs as well as promote the project and supporting institutions through the dissemination of project results. The message to be conveyed - carefully modulated on specific target groups and adapted to the type of media selected - should emphasise the natural and cultural value of the Tassili-Ahaggar and the role of biosphere reserves in demonstrating harmonious relationships between man and the natural environment. The unique cultural vestiges of the region provide a powerful key to the interpretation of its ecology, by vividly describing the process of environmental modification which over 10-15 millennia has transformed a tropical savana into a desert ecosystem.⁷ Sustainable development issues should be consistently incorporated in all formal and non-formal IEC tools in order to introduce the long-term development and conservation issues confronting the future management of the protected areas.

48. A variety of different IEC tools and activities will be required to disseminate the basic message which, according to the profile of different target groups, will include the following non-exhaustive set of key activity bundles: (i) the development of a wide range of field-based environmental education activities and tools targeting primary and secondary school students and complementing formal education programmes; (ii) interpersonal communication tools such as familiarisation tours, thematic workshops, information portfolios for specialised audiences of decision-makers, educationalists, tourism professionals, environmental NGOs, etc.; (iii) co-ordinated public relations with the press and media ensuring accurate and timely coverage of project activities in national and local TV and radio, and in selected dailies, weeklies and trade magazines, aiming at mass circulation, opinion leading and advertising; (iv) production of high-quality TV documentaries and internet-based products targeting the wider national and international public to support public

⁷ The most noteworthy pre-historic remains include: rock paintings in the Plateau of Tasghirt, rock engravings of large fauna (hippopotamus, buffalo, elephant, rhinoceros and giraffe) and of man in the wadi Djerat canyon, rock engravings of the fauna of the Sahara on the Plateau of Dider, stone monuments at Fadnoun, rich archaeological remains in the southern zone, Neolithic remains such as sculpture, pottery, grinding implements and enclosure walls as well as material from the lower and middle Palaeolithic periods in the Fort Tarat and Djanet regions. A chronological sequence in cave paintings exists, for example those of the Equidian period present stylised figures and frequent scenes of moufflon hunting; the Cameline period with a schematic style incorporating inscriptions in Tifinagh characters, which is the same alphabet as still used by the Tuareg today. Radiocarbon dating has indicated the archaeological remains date from the period 6,000 to 2,000BC.

relations activities, disseminate project results and make available in the public domain information on the protected area and its activities.

Activities:

Phase 1	<p>4.1 Develop with local stakeholders a comprehensive Information, Education, Communication (IEC) strategy based on (i) clear identification of target audience and positioning; (ii) definition of simple message emphasising the links between the natural and cultural heritage of the Tassili-Ahaggar region; (iii) identification of target audience- and media-specific IEC tools and activities; (iv) detailed work-plan.</p> <p>4.2 Design and develop pilot IEC tools and activities</p> <p>4.3 Test and modify pilot IEC tools and activities</p>
Phase 2	<p>4.4 Develop with local stakeholders a comprehensive Information, Education, Communication (IEC) strategy based on (i) clear identification of target audience and positioning; (ii) definition of simple message emphasising the links between the natural and cultural heritage of the Tassili-Ahaggar region; (iii) identification of target audience- and media-specific IEC tools and activities; (iv) detailed work-plan.</p> <p>4.5 Design and develop pilot IEC tools and activities</p> <p>4.6 Test and modify pilot IEC tools and activities</p>

Output 5. Monitoring and evaluation of biodiversity resources, their utilisation and management has been tested, and a system is operational.

49. The GEF would provide funds to build the capacity of the PAMUs for systematic monitoring of biodiversity, as a crucial tool supporting the planning and management of the protected area under their mandate. This will be achieved through two main and related streams of activity, based on the establishment of a central Biodiversity Monitoring Unit (BMU) for the Tassili-Ahaggar region and of field units based in PAMU sub-headquarters. The key tasks of the BMU would be the following: (i) collaborate with other agencies and institutions in the design of the monitoring programme, building consensus on monitoring priorities; (ii) arrange for outsourcing of selected components of the programme ensuring full compliance with agreed conditions during implementation; (iii) develop simple participatory methods for data collection by PAMU staff, so that information may be collected by different teams and results compared with confidence; (iv) synthesise data, disseminate results and play an active role in the planning, research and training activities of the PAMUs; (v) ensure that information is shared with all serious stakeholders in Algerian biodiversity conservation.

50. The monitoring programme will concentrate on selected dimensions of the overall system, in an attempt to generate information, which is directly applicable to the PAMU's core business - the planning and management of protected areas. It would be premature to define too specifically the monitoring activities to be undertaken, however, the following indicative list of key activities could be supported:

- ✦ Habitat and land use monitoring. Broad-scale habitat and land use patterns will be analysed through remote sensing and ground surveys in order to detect changes in the levels of human-related pressure on areas of key resources and important biological corridors. If necessary, the initial treatment of remote sensed data could be outsourced,

but the final output is to be adapted for a PC platform using a user-friendly GIS package and established at PAMU headquarters.

- ✂ Species monitoring. It will be most cost-effective to concentrate on a small number of species which are directly related to key management issues due to their economic impact, social importance, or their role as keystone / flagship species (e.g. among the mammals, Barbary sheep, the gazelles and cheetah). Bird checklists will be regularly updated and the seasonal abundance of at least a selection of migratory species and of endemic and threatened species monitored. A selection of key species of reptiles, amphibians and invertebrates will also be monitored as well as a limited number of endemic and/or threatened plant species such as *Olea laperrini* and *Cupressus dupreziana*.
- ✂ Monitoring utilisation of biodiversity. In addition to monitoring land use and habitat conversion within human impact zones (see above), participatory monitoring techniques will be employed to track a further set of indicators such as: (i) the number and category of direct and indirect users of biodiversity; (ii) qualitative / quantitative estimates of harvesting pressure and stock depletion rates; (iii) economic benefits from the extraction and utilisation of biodiversity resources and (iv) the risk of loss of biodiversity components.
- ✂ Monitoring management of protected areas. The effectiveness of PA management will be monitored through standardised methods of reporting with measurement of achievements against time-bound targets and by employing indicators, which are reflected in the annual work plans for each protected area. The following key areas should be considered: (i) staff performance and welfare; (ii) finance and administration; (iii) effectiveness of management of vehicles, tools and equipment; (iv) conservation and protection activities; (v) estate management; (vi) range and wildlife management; (vii) visitor management; (viii) IEC and extension activities; (ix) implementation of research and monitoring programme.
- ✂ Information management. A simple and manageable information system is central to the activities of the BMU in order to co-ordinate the flow of data from direct monitoring as well as the information generated by external specialists and other agencies. The system should provide a framework to organise data and eventually become a source of information to be used in everyday management work. Staff should be trained to input data and encouraged to use the system by maximising user-friendliness, providing good support and generating data sets and reports that contribute to management decisions.

Activities:

Phase 1	<p>5.1 Establishment of a central Biodiversity Monitoring Unit (BMU) for the Tassili-Ahaggar region</p> <p>5.2 Design the monitoring programme in collaboration with other agencies and institutions and building consensus on monitoring priorities</p> <p>5.3 Develop simple participatory methods for data collection and train PAMU staff, so that information may be collected by different teams and results compared with confidence</p> <p>5.4 Outsource initial treatment of remote sensed data and the design of an integrated database and information system with final output to be adapted for a PC platform using a user-friendly GIS package</p> <p>5.5 Training of selected BMU staff to input data and use the integrated GIS</p>
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	system in order to generate data sets and reports that contribute to management decisions.
Phase 2	<p>5.6 Establish field units of the BMU in each of the PAMU sub-headquarters</p> <p>5.7 Support the implementation of the M&E system based on monitoring of: (i) habitat and land use through remote sensing and ground surveys; (ii) a manageable number of keystone / flagship species; (iii) utilisation of biodiversity within human impact zones using participatory techniques; (iv) PA management effectiveness through standardised methods of reporting with measurement of achievements against time-bound targets</p> <p>5.8 Continue to support the GIS/information system in order to co-ordinate the flow of data, synthesise information and disseminate results</p> <p>5.9 Ensure that information is shared with all serious stakeholders in Algerian biodiversity conservation</p>

Output 6. Management plans are developed and biodiversity conservation is firmly inscribed on the local development agenda.

51. The GEF will provide funds to develop a prioritised management plan for the Tassili-Ahaggar region, finely adapted to the ecological, social and economic specificity of the two protected areas and incorporating the adaptive management framework underpinning the CM process and derived agreements (output 2). An overarching objective is that management guidelines remain highly flexible, allowing the Protected Area Management Units to strategically adapt their policies. On the other hand, the management plan will formalise operational links between the two PAMUs, integrate PA management with local and national cross-sectoral development plans and policies and provide a basis for future bio-regional planning and transnational biodiversity conservation and sustainable use initiatives.

52. The proposed timeframe would require the preparation of a first set of guidelines by the end of the first phase of the project, for implementation in the following five years. During the second phase guidelines would be extensively tested and revised and an updated plan would be produced as a final output to cover the five-year period following termination of the project. A non-exhaustive list of key activities supported by GEF funding would include: (i) desktop survey and review of all available information on the Tassili-Ahaggar region; (ii) field surveys to complete the collection of baseline data on biodiversity resources and their utilisation including associated threats and root causes; (iii) compilation of resource profiles for the PAs, including baseline and thematic maps and technical descriptions generated by the GIS and M&E systems; (iv) participatory planning - initiated through the CM process - based on extensive interaction and negotiations with key stakeholders of the protected areas; (v) preliminary zoning, based on priority management issues identified through stakeholder consultations and complementary information produced by specialist missions and the GIS and M&E systems; (vi) formulation of draft management plan; (vii) regional and national reviews of draft management plan by relevant institutions, government departments and key stakeholders; (viii) completion and official adoption of management plan for implementation.

Activities:

Phase 1	<ul style="list-style-type: none">6.1 Desktop survey and review of all available information on the Tassili-Ahaggar region6.2 Field surveys to complete the collection of baseline data on biodiversity resources, their utilisation, associated threats and root causes6.3 Production of baseline and thematic maps for PAs through the services of the GIS system6.4 Synthesis of information on resource profile and technical descriptions of the two protected areas6.5 Participatory planning through extensive interaction and negotiations with key stakeholders as initiated through the CM process (output 2)6.6 Draft zoning, based on stakeholder consultations and information from specialist missions, integrated GIS and M&E systems6.7 Formulation and adoption of management guidelines for second phase of project
Phase 2	<ul style="list-style-type: none">6.8 Implementation and testing of management guidelines produced during the first phase.6.9 Revision and updating of management plans according to key steps indicated under activities 6.1 – 6.66.10 Formulation of a comprehensive management plan covering the five-year period following project termination.6.11 Regional and national review: of management plans by relevant institutions, government departments and key stakeholders6.12 Official adoption of management plan for implementation

Output 7. Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities.

53. Participatory assessments conducted during the PDF-B underscored the need to address livelihood needs as part of the overall conservation initiative. The multiple livelihood strategies adopted by people living within the protected areas would be upheld while maximising the positive contribution made by biodiversity to livelihood outcomes. A flexible, non-sectoral, sustainable livelihood approach would support newly emerging local government bodies and NGOs stemming from the ongoing twin processes of decentralisation and democratisation. The aim is to open-up the dialogue beyond government, while encouraging both the public and private sectors to innovate and incorporate emerging best practices from biodiversity conservation initiatives. Under the alternative strategy a shift in development priorities would occur, with interventions being modified to address the ultimate causes of biodiversity loss, while additional assistance would be leveraged and activities incompatible with conservation would be restricted. The project will sign memoranda of understanding with partner agencies, establishing a joint programmatic framework for conservation and community development interventions.

54. No funds will be appropriated from GEF except to support limited, incremental, technical assistance inputs. Proposed interventions will be carried out with financing from government and development agencies (see Annex 6). Deliverables so far identified include: (i) improved animal husbandry schemes based on goat-fattening and the raising of local chicken varieties; (ii) support to extensive pastoral management through the establishment of water collecting ponds in improved rangelands and strengthening of local tenure arrangements, rangeland custodianship and management practices; (iii) pilot scheme to plant, produce and market economically valuable medicinal plants; (iv) promotion of energy alternatives by demonstrating low-cost, off-grid technologies and providing micro-credits for the distribution of appliances such as solar stoves and ovens; (v) contribution to land rehabilitation schemes based on the planting of native tree species; (vi) support to the diversification of ecotourism services based on the development of traditional handicrafts and of camel tours for visitors.

Activities:

<p>Phase 1</p>	<p>7.1 Sensitise the private and public sectors to innovate and incorporate emerging best practices from biodiversity conservation initiatives by developing resource materials and hosting local workshops</p> <p>7.2 Negotiate and sign memorandums of understanding with partner agencies, establishing a joint programmatic framework for conservation and community development interventions</p> <p>7.3 Provide incremental technical assistance for the design and implementation of the following co-financed sustainable livelihood pilot schemes:</p> <ul style="list-style-type: none"> ✍ Improved animal husbandry based on goat-fattening and the raising of local chicken varieties; ✍ Extensive pastoral management based on the establishment of water collecting ponds in improved rangelands; ✍ Planting, production and marketing of economically valuable medicinal plants; ✍ Micro-credit programme promoting energy alternatives and the distribution of solar appliances; ✍ Land rehabilitation programme based on the planting of native tree species; ✍ Traditional handicrafts and camel tours for visitors, supporting the diversification of ecotourism services
<p>Phase 2</p>	<p>7.4 Continue to provide incremental technical assistance for the design and implementation of sustainable livelihood pilot schemes (activity 7.3)</p> <p>7.5 Work with community planners to ensure timely delivery of co-financed activities</p> <p>7.6 Ensure conservation objectives are fully incorporated into regional development plans, including infrastructural and sectoral plans</p> <p>7.7 Support advocacy functions of NGOs to monitor development operations and provide early warning of conflicts and malfeasance</p>

4. RISKS AND PRIOR OBLIGATIONS

55. **Project Risks:** The assumptions that underpin project design are listed in the log frame. Six key risks have been identified. These are listed below, with a description of abatement measures.

Risk	Rating	Abatement Measure
Legal modifications are not officially approved or enacted in a timely fashion	M	Considerable financial and technical resources have been foreseen during the first phase to address this key issue. A positive outcome should be considered as a prerequisite for graduating from the first to the second phase of the project.
Re-orientation of PAMU towards biodiversity conservation is hampered or delayed	H	The project will be backstopped by an international Chief Technical Adviser with long-term experience in the conservation of biodiversity and the management of protected areas.
Management staff are not willing to be redeployed to sub-headquarters and outposts	H	This risk can be reduced through careful selection of personnel and the timely realisation of infrastructure and procurement of key equipment for decentralised PAMU units.
Government is unwilling to implement the new participatory management methods and share responsibilities and accountability	M	A key element of project design is systematic consultation with local communities. The Collaborative Management framework will ensure that community perspectives are addressed. A finely targeted IEC strategy will assist in reaching agreement between stakeholders and local and national government institutions.
Law and order fundamentals foreclose the development of ecotourism activities and Algeria does not become an attractive market for international tourism	M	The risk is mitigated by the fact that ecotourism is supported as one of several sustainable livelihood options for the diversification of the local economy. In addition this sector is usually associated with flexible exit and re-entry into the pastoral economy. Careful assessment of this risk and the abating measures will be made by the project team at regular times.
Co-financing is not assured and baseline sustainable development outcomes are not realised	M	The Steering Committee will facilitate joint programming between GEF inputs and those financed by other financiers; co-financing commitments would be confirmed prior to and as a pre-condition for commencement of each project phase.

Risk rating L = low; M = medium; H = high

56. **Prior Obligations:** The project document will be co-signed by UNDP and the GOA representatives. UNDP-GEF assistance to the project will be provided subject to UNDP being satisfied that the prerequisites listed below have been fulfilled or are likely to be

fulfilled. When fulfilment of one or more prerequisites fails to materialise, UNDP may, at its discretion, either suspend or terminate its assistance.

Prior to Phase 1

- ✗ Letter from GOA ensuring their commitment to provide requires co-funding and adherence to project design and strategies as stated herein.

Prior to Phase 2

- ✗ Official revision of PAMU mandate and organigram;
- ✗ Legal procedures for establishing CM agreements, licensing of economic activities and extension of police powers approved;
- ✗ Management plan for second phase finalised and adopted;
- ✗ Co-financing commitments for second phase confirmed.

C. INPUTS

GOVERNMENT INPUTS:

Description	Phase 1	Anticipated Phase 2	Total
Project Personnel	1,600,000	5,919,291	7,519,291
Subcontract	400,000	2,670,000	3,070,000
Training	20,000	100,000	120,000
Equipment	120,000	210,000	330,000
Travel	100,000	300,000	400,000
Miscellaneous	100,000	300,000	400,000
TOTAL	2,340,000	9,499,291	11,839,291

GEF Inputs

Description	Total	Phase 1	Anticipated Phase 2
PROJECT PERSONNEL	3,722,400	1,479,400	2,243,000
SUBCONTRACTS	2,845,000	685,000	2,160,000
TRAINING	551,081	205,000	346,081
EQUIPMENT	1,827,420	867,220	960,200
TRAVEL	720,000	270,000	450,000
MISCELLANEOUS	124,000	34,000	90,000
TOTAL	9,789,901¹	3,540,620	6,249,281

¹ + US\$180,000 paid by GEF for the PDF-B.

UNDP Inputs

Description	Phase 1	Anticipated Phase 2	Total
PROJECT PERSONNEL	20,000	40,000	60,000
SUBCONTRACTS	50,000	148,400	198,400
TRAINING	30,000	34,000	64,000
EQUIPMENT	30,000	30,000	60,000
TRAVEL	50,000	50,000	100,000
MISCELLANEOUS	5,100	12,500	17,600
TOTAL	185,100	314,900	500,000

D. PROJECT MANAGEMENT

1. IMPLEMENTATION ARRANGEMENTS

57. Execution arrangements: This is a two-phase project. UNDP-GEF is committing resources for phase 1 only, while resources for phase 2 are fully conditional upon both a positive evaluation of phase 1 against established benchmarks, and a resubmission of a request for funding of phase 2 to the GEF Council.

UNDP will execute this phase 1 project, on behalf of the Government of Algeria, in accordance with UNDP rules and procedures for direct execution. So, UNDP CO will be responsible for (i) monitoring project activities, evaluating impacts, and reporting on progress implementation to GEF, including timely submission of PIRs/APRs; (ii) ensuring effective and timely planning and programming of activities; (iii) procurement of non-expendable equipment, (iv) identification and recruitment of project personnel, consultants, subcontracts and other inputs; (v) ensuring smooth functioning of project staff (once recruited), and the project Steering Committee; (vi) co-ordination of yearly evaluations as well as independent evaluations; (vii) management of project accounts; and (viii) arranging for audits of expenditures in compliance with UN system procedures.

The UNDP Drylands Development Centre (DDC) will advise the UNDP Country Office on project implementation, monitoring and evaluation.

58. Implementation arrangements: The project would be implemented by the Ministry of Communication and Culture through a Project Management Unit (PMU) headed by a National Project Coordinator, two National Field Directors, respectively the managers of the Tassili n'Ajjer NP and Ahaggar NP, with backstopping from an international Chief Technical Adviser, administrative support personnel and short-term technical experts. A cross-sectoral Steering Committee would be established to oversee project operations, approve annual work-plans and progress reports and ensure implementation of the recommendations of independent evaluations. It is anticipated that local NGOs having a well-proven track record in biodiversity conservation will be engaged to support selected activities, so as to build advocacy functions and a long-term twinning relationship with the PAMUs.

59. The Project Management Unit will have the following responsibilities:

- ✍ Prepare work plans, budget, and terms of reference (TORs) of consultants, trainers, and subcontractors;
- ✍ Monitor and evaluate progress of activities to identify and resolve implementation bottlenecks and ensure coordination of activities;
- ✍ Arrange regular meetings of the PAMB to review overall work progress and ensure effective coordination of activities;
- ✍ Prepare and disseminate project reports and other information materials;
- ✍ Prepare necessary information materials and lead the coordination work with co-funded activities
- ✍ Maintain accounting books and records required for sound financial record-keeping and internal control in line with generally accepted accounting principles
- ✍ Submit timely and accurate financial reports to account for the use of UNDP-GEF funds, to monitor project delivery and facilitate processing of fund advances.
- ✍ Submit timely progress reports to UNDP.

60. Public participation: In the project area, the management of biodiversity has traditionally relied on the highly flexible normative framework provided by Tuareg institutions with jurisdiction over specific territories and usufruct rights covering grazing, hunting, agriculture and other forms of biodiversity utilisation. The public participation strategy of the project will thus concentrate on the creation and strengthening of such conservation-enabling institutions conferring strong authority and status on legally sanctioned communal natural resource regimes (see output 2). Public participation efforts will focus initially on the main urban centres and the six key biodiversity sites identified during the course of the PDF-B as suitable areas for the demonstration of management techniques to be replicated and applied on a wider scale in the Tassili-Ahaggar region (see schematic map, Annex 2).

61. Based on the outcome of the consultative process initiated during the project formulation period, the public participation strategy underpinning the project may be outlined as follows:

- ✍ The project will support a processual approach, strongly based on ‘learning by doing’, which will be advanced through an interdisciplinary collaborative management (CM) team that will assist in the negotiation of CM agreements according to procedures detailed under output 2;
- ✍ Key stakeholders will be provided with extensive training and general orientation in conservation enabling management methods through the services of participatory appraisal specialists and experienced facilitators - members of the collaborative management (CM) team established by the project;
- ✍ Establishment and organisation of local management committees with robust conflict mediation systems, low transaction costs and rooted in existing social networks, such as those administered by community elders;
- ✍ Summoning of regular intra-community forums, bringing together community members and representatives from community-based groups in order to facilitate informal exchanges and resolve outstanding problems;
- ✍ Convening of periodic general meetings of representatives from different management committees in order to share management experiences and ensure that management operations are co-ordinated;

- ✍ Engage local NGOs with a well-proven track record in biodiversity conservation to support selected project activities, so as to build advocacy functions and a long-term twinning relationship with the PAMUs;
- ✍ Identify and support selected representatives from local management committees and NGOs as members of the Protected Area Management Board (PAMB) including all key stakeholders in the management of the protected areas;
- ✍ Establish and support a cross-sectoral Steering Committee to oversee project operations, approve annual work-plans and progress reports and ensure implementation of the recommendations of independent evaluations;
- ✍ Support a sustained awareness campaign based on a wide range of Information, Education, Communication (IEC) tools and activities aimed at imparting conservation values to local communities and sensitising them to conservation-friendly land use strategies (see output 4);
- ✍ Ensure that participatory monitoring techniques are employed to track social processes that have a bearing on conservation outcomes, through the systematic involvement of monitors from local communities in M&E activities (see output 5);
- ✍ Develop and operationalize policies and management plans for the two National Parks based on innovative legal procedures allowing the PAMU to enter into effective collaborative management agreements with other parties such as stakeholder communities and the private sector and thereby incorporating the adaptive management framework underpinning the CM process and derived agreements (output 6);
- ✍ Encourage both the public and private sectors to innovate and incorporate emerging best practices from biodiversity conservation initiatives through a flexible, non-sectoral, sustainable livelihood approach, supporting newly emerging local government bodies and NGOs stemming from the ongoing twin processes of decentralisation and democratisation (output 7).

2. FINANCIAL MANAGEMENT ARRANGEMENTS

62. The Project Management Unit (PMU) will be responsible for the overall financial management and reporting of the UNDP-GEF funds in accordance with UNDP financial rules and regulations. Requests for cash advances as well as disbursement of funds against these advances will be subjected to the approval of the Chief Technical Advisor and National Project Coordinator upon recommendation of the Field Directors. In order to monitor the flow of project funds, a project resource and financial management system shall be developed and maintained by the PMU. Specifically, the PMU will have the following financial management responsibilities:

- ✍ Prepare and submit on a timely basis, separate and accurate quarterly financial reports to account for the use of the GEF funds;
- ✍ Monitor project delivery rate and facilitate processing of subsequent fund advances;
- ✍ Maintain an accounting system that is current and ensure the reliability and accuracy of financial information and reporting;
- ✍ Maintain books and records required for sound financial record-keeping and internal control;

- ⚡ Ensure proper identification of receipt and disbursement of funds and approval of budget categories within set limits;
- ⚡ Tracking of receipts and disbursements of fund advances, expenditures, and direct payments by the UNDP
- ⚡ Maintain non-expendable property ledger to record all acquisitions and dispositions and track movement of all equipment items;
- ⚡ Ensure that all interest earned on deposits of funds are remitted to the UNDP-CO at the end of the year through check payment.

63. The National Project Coordinator would be responsible for monitoring the commitment of funds under budget lines until the relevant disbursements have been made, and the amounts recorded in the project account. A Manual of Approval will be prepared specifically for the project to serve as a guide in its operation.

64. UNDP will arrange for a mandatory annual financial audit of the project by a private accounting firm for the purposes of assessing the efficacy of financial accounting and monitoring and equipment control systems. More specifically, the audit will confirm that: (i) financial disbursements are being made in accordance with agreed project activities and input budgets, and are supported by adequate documentation; (ii) quarterly financial reports are accurately presented; (iii) appropriate management structures, internal controls and record-keeping systems are being maintained; (iv) procurement, control and disposal requirements for non-expendable equipment are met.

65. UNDP CO will be responsible for local and international procurement of non-expendable equipment following established rules and procedures. The PMU will prepare specifications for all project equipment and supplies, and will establish and maintain a property ledger for all non-expendable equipment purchased with project funds. Procurement decisions will be made based on a transparent and competitive bidding process. The PMU will be responsible for preparing detailed Terms of Reference for subcontracted activities under the project, including functions, responsibilities, deliverables, measures for ensuring financial accountability and reporting requirements. In all cases, subcontracting will follow competitive processes, as established by UNDP rules and procedures.

3. SUSTAINABILITY OF PROJECT RESULTS

66. Sustainability: Project design makes strong provision for ensuring institutional and financial sustainability. Considerable capacity building efforts will target the PAMUs as key institutions where the GOA already permanently employs the vast majority of personnel. The recurrent costs of PA operations, including personnel, infrastructure and equipment maintenance - additional to costs, already covered by existing PAMU budgets - will be initially shared with GEF but, by the end of the project period, will be shouldered entirely by the GOA. The sustainability of collaborative management and livelihood initiatives targeting the private sector and local communities will be assured by the removal of barriers presently limiting the development of economically sound, income-generating activities with conservation-specific linkages.

67. Replicability: Built on a body of knowledge and experience in integrating conservation and development in Algeria, the project design includes a number of features aimed at

addressing problems encountered in other conservation initiatives that include support for social institution building at the community level, advocacy to ensure passage of policy and regulatory instruments and strengthening of the PAMU office. The project will generate lessons in connection with these design features. Using coordination mechanisms already established to link conservation interventions in Algeria, the project will seek to engender replication of innovative design elements.

E. MONITORING, EVALUATION AND LESSONS LEARNED

68. At the beginning of implementation, the project would develop analytical and sampling tools for field monitoring activities as part of the establishment of the biodiversity monitoring system foreseen under output 5. The logical framework provides a set of performance indicators to measure the delivery of outputs, and impact indicators, measuring attainment of project objectives. These indicators will be further refined following in-depth biological and social assessments scheduled under output 6. The project will be implemented through an adaptive management framework that feeds monitoring data into operational planning, thus enabling management strategies and activities to be flexibly adjusted. Monitoring would involve both government and local communities, in order to facilitate inputs from all stakeholders and assess whether new priorities require a shift in the types of interventions receiving funding.

69. The project coordinator and sub-contractors will prepare quarterly activity and expenditure reports for submission to UNDP, and as a basis for disbursing funds. A more detailed Annual Project Report (APR) will be prepared prior to the end of the fourth quarter of each year, clearly describing substantive progress in implementation and providing a detailed financial report. The APR would inform decision-making by the project Steering Committee and include a numerical rating of project performance, an assessment of major achievements, issues, problems, shortcomings, and lessons learned, and a financial statement. The APR will be used as an information document for the scheduled annual Tripartite Reviews. UNDP will draw on this information in reporting to the GEF on the status of the project, during the regular annual Project Implementation Review (PIR). Every year also, the project will be subject to an official audit to be conducted by an independent auditor.

70. A mandatory independent evaluation will occur prior to graduation from the first to the second phase of the project and results will be critical for the release of further funds. Benchmarks are listed in the logical framework including (i) revision of PAMU mandate and organigram; (ii) legal procedures for establishing CM agreements, licensing of economic activities and extension of police powers approved; (iii) implementation of pilot CM agreements initiated; (iv) comprehensive IEC strategy developed and tested for implementation; (v) biodiversity M&E system designed and tested; (vi) management plan for second phase finalised and adopted; (vii) memoranda of understanding with partner agencies signed and co-financing commitments confirmed. In the final year of the project a full-scale evaluation will be undertaken that will provide detailed, practical recommendations for the implementation of future biodiversity conservation projects in Algeria and will consider such issues as knowledge acquisition, capacity improvement, and environmental impact. UNDP, may, at its discretion, schedule additional independent evaluations if deemed necessary.

71. The project builds on the lessons learnt during the implementation of the PDF-B and derived from other national and international conservation programmes:

Lesson	Design Feature
Participatory biodiversity protection and sustainable use projects have been shown to require long timeframes in order to deliver conservation outcomes.	A time horizon of eight years has been selected for project implementation with a first, shorter preparatory phase of three years and a longer second phase of five years to deliver project final outcomes. A number of benchmarks are built into the log-frame as a means of evaluating project performance before graduation between phases
Effective capacity for PA management is often constrained by lack of a strong supporting legal framework and the adoption of site-specific rules and regulations	Significant resources have been allocated to tackle the legal issues at the onset of the project and clear benchmarks are set for outcomes to be delivered before graduation between phases.
Direct recruitment of staff by conservation projects often results in highly trained and motivated staff being left jobless after termination of project.	The development of human resources will concentrate on training, recycling and rendering operational the over 600 permanent PAMU staff. Further staff will be recruited only as additional funds are made available by the GOA
<p>In extreme, arid environments conventional management methods based on parameters such as static carrying capacities and fixed resource units have been shown to be inappropriate.</p> <p>Effective participatory processes are open-ended and strongly based on 'learning by doing' in order to fit the unique needs and opportunities of different contexts.</p>	<p>An adaptive management framework will be adopted, enabling the development of new forms of governance, based on flexible and plural legal frameworks and institutions that are rooted in an appreciation of the consequences of ecological uncertainty in desert ecosystems. In sites of key biodiversity resources, more intensive management will be supported while over the rest of the area management will be more extensive.</p> <p>The project will support a processual approach, whereby the range of possible initiatives that may be supported by the project is deliberately left open so that true stakeholder participation and the identification of site-specific solutions are not foreclosed.</p>

LEGAL CONTEXT

72. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Algeria and the United Nations Development Programme, signed by the parties in June 1998. The Government Implementing Agency shall, for the purposes of the Standard Basic Assistance Agreement, refer to the Government co-operating agency described in that Agreement.

73. UNDP acts in this Project as Implementing Agency of the Global Environment Facility (GEF), and all rights and privileges pertaining to UNDP as per the terms of the SBAA shall be extended *mutatis mutandis* to GEF. The UNDP Resident Representative in Algeria is authorised to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

74. The Government agrees to the recruitment of nationally recruited project professional personnel required for the implementation of this project, in accordance with UNDP policies and procedures established within the United Nations system for this purpose. These services constitute an addition to the regular personnel resources to be provided by the Government and will be available for the duration of UNDP participation in the project. The remuneration of nationally recruited professional personnel will be determined on a case-by-case basis in accordance with the policies and procedures of UNDP; it should exceed neither the prevailing compensation for comparable functions in the host country nor remuneration levels applicable within the United Nations system.

F. BUDGET

1. GEF BUDGET FOR PHASE I OF THE PROJECT

BL	Description	Implementation	Phase 1	Phase 1			
				2004	2005	2006	
10	PROJECT PERSONNEL						
11	International Experts & Consultants						
1101	Chief technical advisor		Net Amount	120,000	40,000	40,000	40,000
			Total	120,000	40,000	40,000	40,000
1102	CM Specialist		Net Amount	60,000	20,000	20,000	20,000
			Total	60,000	20,000	20,000	20,000
1103	Ecotourism Specialist		Net Amount	36,000	9,000	18,000	9,000
			Total	36,000	9,000	18,000	9,000
1104	IEC Specialist		Net Amount	54,000	18,000	18,000	18,000
			Total	54,000	18,000	18,000	18,000
1105	Biodiversity M&E Specialist		Net Amount	72,000	18,000	27,000	27,000
			Total	72,000	18,000	27,000	27,000
1106	Technical Backstopping (DDC)		Net Amount	130,000	40,000	45,000	45,000
			Total	130,000	40,000	45,000	45,000
1199	Line Total		Net Amount	472,000	201,000	219,000	219,000
			Total	472,000	201,000	219,000	219,000
13	Admin. Support Personnel						
1301	Accountant / Cashier 1		Net Amount	28,800	9,600	9,600	9,600
			Total	28,800	9,600	9,600	9,600
1302	Accountant / Cashier 2		Net Amount	28,800	9,600	9,600	9,600
			Total	28,800	9,600	9,600	9,600
1303	Administrative officer 1		Net Amount	25,200	8,400	8,400	8,400
			Total	25,200	8,400	8,400	8,400
1304	Administrative officer 2		Net Amount	25,200	8,400	8,400	8,400
			Total	25,200	8,400	8,400	8,400
1305	Driver		Net Amount	18,000	6,000	6,000	6,000
			Total	18,000	6,000	6,000	6,000
1306	Janitor / utility 1		Net Amount	14,400	4,800	4,800	4,800
			Total	14,400	4,800	4,800	4,800
1307	Janitor / utility 2		Net Amount	14,400	4,800	4,800	4,800

			Total	14,400	4,800	4,800	4,800
1399	Line Total		Net Amount	154,800	51,600	51,600	51,600
			Total	154,800	51,600	51,600	51,600
15	Monitoring & Evaluation						
1501	Duty Travel		Net Amount	270,000	90,000	90,000	90,000
			Total	270,000	90,000	90,000	90,000
1599	Line Total		Net Amount	270,000	90,000	90,000	90,000
			Total	270,000	90,000	90,000	90,000
16	Mission Costs						
1601	Independent Evaluations		Net Amount	25,000			25,000
			Total	25,000			25,000
1699	Line Total		Net Amount	25,000			25,000
			Total	25,000			25,000
17	National Professionals						
1701	Project Coordinator (ANP+TNP)		Net Amount	156,000	52,000	52,000	52,000
			Total	156,000	52,000	52,000	52,000
1702	Project Manager / Field Director (ANP)		Net Amount	126,600	40,867	40,867	40,866
			Total	126,600	40,867	40,867	40,866
1703	Project Manager / Field Director (TNP)		Net Amount	126,600	40,867	40,867	40,866
			Total	126,600	40,867	40,867	40,866
1704	N.4 Trainers (Training team)		Net Amount	115,200	38,400	38,400	38,400
			Total	115,200	38,400	38,400	38,400
1705	N.4 Collaborative Management Facilitators		Net Amount	115,200	38,400	38,400	38,400
			Total	115,200	38,400	38,400	38,400
1706	Legal / institutional expert		Net Amount	15,000	2,500	5,000	7,500
			Total	15,000	2,500	5,000	7,500
1707	N.20 New PA staff (progressively recruited GOA)		Net Amount	180,000	60,000	60,000	60,000
			Total	180,000	60,000	60,000	60,000
1708	Unallocated		Net Amount	0			
			Total	0			
1799	Line Total		Net Amount	774,600	177,700	240,200	242,700
			Total	774,600	177,700	240,200	242,700
19	PROJECT PERSONNEL TOTAL		Net Amount	1,749,400	520,300	600,800	628,300
			Total	1,749,400	520,300	600,800	628,300
20	CONTRACTS						
21	Subcontract A						

2101	Completion of HQs TNP		Net Amount	155,000	35,000	120,000	
			Total	155,000	35,000	120,000	
2102	N.3 Sub-headquarters 1 ANP)	(2 TNP,	Net Amount	70,000			70,000
			Total	70,000			70,000
2103	N. 5 Main outposts / gates 3 ANP)	(2 TNP,	Net Amount	110,000		55,000	55,000
			Total	110,000		55,000	55,000
2104	N. 15 Outposts (2 TNP, 13 ANP)		Net Amount	40,000			40,000
			Total	40,000			40,000
2105	Wells/ boreholes		Net Amount	15,000			15,000
			Total	15,000			15,000
2106	Tracks, signposting, etc.		Net Amount	60,000		30,000	30,000
			Total	60,000		30,000	30,000
2107	Visitor facilities		Net Amount	0			
			Total	0			
2199	Line Total		Net Amount	450,000	35,000	205,000	210,000
			Total	450,000	35,000	205,000	210,000
22	Subcontract B						
2201	Ecotourism		Net Amount	50,000	10,000	20,000	20,000
			Total	50,000	10,000	20,000	20,000
2299	Line Total		Net Amount	50,000	10,000	20,000	20,000
			Total	50,000	10,000	20,000	20,000
23	Subcontract C						
2301	IEC		Net Amount	75,000	15,000	15,000	45,000
			Total	75,000	15,000	15,000	45,000
2399	Line Total		Net Amount	75,000	15,000	15,000	45,000
			Total	75,000	15,000	15,000	45,000
24	Subcontract D						
2401	Biodiversity monitoring		Net Amount	80,000	20,000	30,000	30,000
			Total	80,000	20,000	30,000	30,000
2499	Line Total		Net Amount	80,000	20,000	30,000	30,000
			Total	80,000	20,000	30,000	30,000
25	Subcontract E						
2501	Management Planning		Net Amount	30,000	5,000	12,500	12,500
			Total	30,000	5,000	12,500	12,500
2599	Line Total		Net Amount	30,000	5,000	12,500	12,500
			Total	30,000	5,000	12,500	12,500
29	SUBCONTRACTS TOTAL		Net Amount	685,000	85,000	282,500	317,500

			Total	685,000	85,000	282,500	317,500
30	TRAINING						
32	Group Training						
3201	N.4 Study Tours in the region (10 participants)		Net Amount	20,000		20,000	
			Total	20,000		20,000	
3202	N.8 In-country Study Tours (10 participants)		Net Amount	40,000	20,000		20,000
			Total	40,000	20,000		20,000
3203	Regional Training programmes (20 participants)		Net Amount	20,000		20,000	
			Total	20,000		20,000	
3204	Overseas work attachments (6 participants for 3 months)		Net Amount	18,000			18,000
			Total	18,000			18,000
3205	On-the-job training (600 staff)		Net Amount	62,500	12,500	25,000	25,000
			Total	62,500	12,500	25,000	25,000
3206	In-service training workshops		Net Amount	9,000	3,000	3,000	3,000
			Total	9,000	3,000	3,000	3,000
3207	Ecotourism services		Net Amount	5,000			5,000
			Total	5,000			5,000
3208	Teachers Training		Net Amount	3,000		3,000	
			Total	3,000		3,000	
3209	Training of Outreach Staff		Net Amount	6,000	2,000	2,000	2,000
			Total	6,000	2,000	2,000	2,000
3210	Community Leaders Training		Net Amount	6,000		3,000	3,000
			Total	6,000		3,000	3,000
3211	Intra-community forums and management committees		Net Amount	4,000		2,000	2,000
			Total	4,000		2,000	2,000
3212	Inter community forums and workshops		Net Amount	5,500		2,500	3,000
			Total	5,500		2,500	3,000
3213	NGO advocacy and management capacity		Net Amount	8,000	5,000		3,000
			Total	8,000	5,000		3,000
3214	PAMB planning and management capacity		Net Amount	3,000			3,000
			Total	3,000			3,000
3215	Participatory monitoring and evaluation		Net Amount	2,000			2,000
			Total	2,000			2,000
3299	Line Total		Net Amount	212,000	42,500	80,500	89,000
			Total	212,000	42,500	80,500	89,000

39	TRAINING TOTAL		Net Amount	212,000	42,500	80,500	89,000
			Total	212,000	42,500	80,500	89,000
40	EQUIPMENT						
4501	Loc. Procurement Equipment (equipment register)	(see	Net Amount	311,400	261,400	50,000	
			Total		261,400	50,000	
4502	N.15 Vehicles		Net Amount	165,000	165,000		
			Total	165,000	165,000		
45.03	CO-Operations		Net Amount	241,000	80,000	81,000	80,000
4504	Rental of 4-6 seater plane		Net Amount	42,820	10,000	16,000	16,820
			Total	42,820	10,000	16,000	16,820
4599	Line Total		Net Amount	760,220	553,400	183,000	123,820
			Total	760,220	516,400	516,400	516,400
49	EQUIPMENT TOTAL		Net Amount	760,220	516,400	516,400	516,400
			Total	760,220	516,400	516,400	516,400
50	MISCELLANEOUS						
52	Reporting Costs						
5201	Reporting Costs		Net Amount	13,000	3,000	5,000	5,000
			Total	13,000	3,000	5,000	5,000
5202	Audit		Net Amount	21,000	7,000	7,000	7,000
			Total	21,000	7,000	7,000	7,000
5299	Line Total		Net Amount	34,000	10,000	12,000	12,000
			Total	34,000	10,000	12,000	12,000
59	MISCELLANEOUS TOTAL		Net Amount	34,000	10,000	12,000	12,000
			Total	34,000	10,000	12,000	12,000
90	Execution Fee						
96.01	DEX Execution Fee		Net Amount	100,000	37,000	37,000	26,000
			Total	100,000	37,000	37,000	26,000
99	TOTAL		Net Amount	3,540,620			
			Total	3,540,620			

GEF ⁸ BUDGET FOR FULL PROJECT (including phase 1 & 2) of the project.

BL	Description	Implementation	Total	Phase 1	Phase 2	Phase 1			Anticipated Phase 2					
						2004	2005	2006	2007	2008	2009	2010	2011	
10	PROJECT PERSONNEL													
11	International Experts & Consultants													
1101	Chief technical advisor	Net Amount	600,000	120,000	480,000	40,000	40,000	40,000	120,000	120,000	80,000	80,000	80,000	
		Total	600,000	120,000	480,000	40,000	40,000	40,000	120,000	120,000	80,000	80,000	80,000	
1102	CM Specialist	Net Amount	186,000	60,000	126,000	20,000	20,000	20,000	36,000	27,000	27,000	18,000	18,000	
		Total	186,000	60,000	126,000	20,000	20,000	20,000	36,000	27,000	27,000	18,000	18,000	
1103	Ecotourism Specialist	Net Amount	117,000	36,000	81,000	9,000	18,000	9,000	18,000	18,000	18,000	18,000	9,000	
		Total	117,000	36,000	81,000	9,000	18,000	9,000	18,000	18,000	18,000	18,000	9,000	
1104	IEC Specialist	Net Amount	108,000	54,000	54,000	18,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	
		Total	108,000	54,000	54,000	18,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	
1105	Biodiversity M&E Specialist	Net Amount	117,000	72,000	45,000	18,000	27,000	27,000	9,000	9,000	9,000	9,000	9,000	
		Total	117,000	72,000	45,000	18,000	27,000	27,000	9,000	9,000	9,000	9,000	9,000	
1106	Technical Backstopping (DDC)	Net Amount	175,000	130,000	45,000	40,000	45,000	45,000	9,000	9,000	9,000	9,000	9,000	
		Total	175,000	130,000	45,000	40,000	45,000	45,000	9,000	9,000	9,000	9,000	9,000	
1199	Line Total	Net Amount	1,303,000	472,000	831,000	145,000	168,000	168,000	210,000	192,000	152,000	143,000	134,000	
		Total	1,303,000	472,000	831,000	145,000	168,000	168,000	210,000	192,000	152,000	143,000	134,000	
13	Admin. Support Personnel													
1301	Accountant / Cashier 1	Net Amount	76,800	28,800	48,000	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	
		Total	76,800	28,800	48,000	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	
1302	Accountant / Cashier 2	Net Amount	76,800	28,800	48,000	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	
		Total	76,800	28,800	48,000	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	
1303	Administrative officer 1	Net Amount	67,200	25,200	42,000	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	
		Total	67,200	25,200	42,000	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	
1304	Administrative officer 2	Net Amount	67,200	25,200	42,000	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	
		Total	67,200	25,200	42,000	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	
1305	Driver	Net Amount	48,000	18,000	30,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	
		Total	48,000	18,000	30,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	
1306	Janitor / utility 1	Net Amount	38,400	14,400	24,000	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	
		Total	38,400	14,400	24,000	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	
1307	Janitor / utility 2	Net Amount	38,400	14,400	24,000	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	

⁸ In line with the project brief, GEF Budget in the amount of US\$ 6,249,281 is anticipated at the end of the first-phase period, i.e. after three years of implementation from the date of project commencement.

			Total	38,400	14,400	24,000	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800
1399	Line Total		Net Amount	412,800	154,800	258,000	51,600	51,600	51,600	51,600	51,600	51,600	51,600	51,600
			Total	412,800	154,800	258,000	51,600	51,600	51,600	51,600	51,600	51,600	51,600	51,600
15	Monitoring & Evaluation													
1501	Duty Travel		Net Amount	720,000	270,000	450,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
			Total	720,000	270,000	450,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
1599	Line Total		Net Amount	720,000	270,000	450,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
			Total	720,000	270,000	450,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
16	Mission Costs													
1601	Independent Evaluations		Net Amount	60,000	25,000	35,000			25,000					35,000
			Total	60,000	25,000	35,000			25,000					35,000
1699	Line Total		Net Amount	60,000	25,000	35,000			25,000					35,000
			Total	60,000	25,000	35,000			25,000					35,000
17	National Professionals													
1701	Project Coordinator (ANP+TNP)		Net Amount	228,000	156,000	72,000	52,000	52,000	52,000	14,400	14,400	14,400	14,400	14,400
			Total	228,000	156,000	72,000	52,000	52,000	52,000	14,400	14,400	14,400	14,400	14,400
1702	Project Manager / Field Director (ANP)		Net Amount	186,600	126,600	60,000	40,867	40,867	40,866	12,000	12,000	12,000	12,000	12,000
			Total	186,600	126,600	60,000	40,867	40,867	40,866	12,000	12,000	12,000	12,000	12,000
1703	Project Manager / Field Director (TNP)		Net Amount	186,600	126,600	60,000	40,867	40,867	40,866	12,000	12,000	12,000	12,000	12,000
			Total	186,600	126,600	60,000	40,867	40,867	40,866	12,000	12,000	12,000	12,000	12,000
1704	N.4 Trainers (Training team)		Net Amount	307,200	115,200	192,000	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400
			Total	307,200	115,200	192,000	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400
1705	N.4 Collaborative Management Facilitators		Net Amount	307,200	115,200	192,000	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400
			Total	307,200	115,200	192,000	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400
1706	Legal / institutional expert		Net Amount	32,500	15,000	17,500	2,500	5,000	7,500			5,000	5,000	7,500
			Total	32,500	15,000	17,500	2,500	5,000	7,500			5,000	5,000	7,500
1707	N.20 New PA staff recruited GOA)	(progressively	Net Amount	420,000	120,000	300,000	60,000	60,000	60,000	120,000	90,000	60,000	30,000	0
			Total	420,000	120,000	300,000	60,000	120,000	120,000	120,000	90,000	60,000	30,000	0
1708	Other Consultants		Net Amount	37,500	0	37,500				7,500	7,500	7,500	7,500	7,500
			Total	37,500	0	37,500				7,500	7,500	7,500	7,500	7,500
1799	Line Total		Net Amount	1,605,600	774,600	931,000	177,700	240,200	242,700	242,700	212,700	187,700	157,700	130,200
			Total	1,605,600	774,600	931,000	177,700	240,200	242,700	242,700	212,700	187,700	157,700	130,200
19	PROJECT PERSONNEL TOTAL		Net Amount	4,254,400	1,749,400	2,505,000	520,300	600,800	628,300	594,300	546,300	481,300	442,300	440,800
			Total	4,254,400	1,749,400	2,505,000	520,300	600,800	628,300	594,300	546,300	481,300	442,300	440,800
20	CONTRACTS													
21	Subcontract A													

2101	Completion of HQs TNP		Net Amount	155,000	155,000	0	35,000	120,000						
			Total	155,000	155,000	0	35,000	120,000						
2102	N.3 Sub-headquarters 1 ANP)	(2 TNP,	Net Amount	210,000	70,000	140,000			70,000	70,000	70,000			
			Total	210,000	70,000	140,000			70,000	70,000	70,000			
2103	N. 5 Main outposts / gates 3 ANP)	(2 TNP,	Net Amount	275,000	110,000	165,000		55,000	55,000	55,000	55,000	55,000		
			Total	275,000	110,000	165,000		55,000	55,000	55,000	55,000	55,000		
2104	N. 15 Outposts (2 TNP, 13 ANP)		Net Amount	600,000	40,000	560,000			40,000	200,000	200,000	160,000		
			Total	600,000	40,000	560,000			40,000	200,000	200,000	160,000		
2105	Wells/ boreholes		Net Amount	285,000	15,000	270,000			15,000	75,000	75,000	60,000	60,000	
			Total	285,000	15,000	270,000			15,000	75,000	75,000	60,000	60,000	
2106	Tracks, signposting, etc.		Net Amount	270,000	60,000	210,000		30,000	30,000	60,000	60,000	60,000	30,000	
			Total	270,000	60,000	210,000		30,000	30,000	60,000	60,000	60,000	30,000	
2107	Visitor facilities		Net Amount	200,000	0	200,000				50,000	100,000	50,000		
			Total	200,000	0	200,000				50,000	100,000	50,000		
2199	Line Total		Net Amount	1,995,000	450,000	1,545,000	35,000	205,000	210,000	510,000	560,000	385,000	90,000	0
			Total	1,995,000	450,000	1,545,000	35,000	205,000	210,000	510,000	560,000	385,000	90,000	0
22	Subcontract B													
2201	Ecotourism		Net Amount	150,000	50,000	100,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
			Total	150,000	50,000	100,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
2299	Line Total		Net Amount	150,000	50,000	100,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
			Total	150,000	50,000	100,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
23	Subcontract C													
2301	IEC		Net Amount	300,000	75,000	225,000	15,000	15,000	45,000	45,000	45,000	45,000	45,000	45,000
			Total	300,000	75,000	225,000	15,000	15,000	45,000	45,000	45,000	45,000	45,000	45,000
2399	Line Total		Net Amount	300,000	75,000	225,000	15,000	15,000	45,000	45,000	45,000	45,000	45,000	45,000
			Total	300,000	75,000	225,000	15,000	15,000	45,000	45,000	45,000	45,000	45,000	45,000
24	Subcontract D													
2401	Biodiversity monitoring		Net Amount	255,000	80,000	175,000	20,000	30,000	30,000	35,000	35,000	35,000	35,000	35,000
			Total	255,000	80,000	175,000	20,000	30,000	30,000	35,000	35,000	35,000	35,000	35,000
2499	Line Total		Net Amount	255,000	80,000	175,000	20,000	30,000	30,000	35,000	35,000	35,000	35,000	35,000
			Total	255,000	80,000	175,000	20,000	30,000	30,000	35,000	35,000	35,000	35,000	35,000
25	Subcontract E													
2501	Management Planning		Net Amount	145,000	30,000	115,000	5,000	12,500	12,500	20,000	20,000	25,000	25,000	25,000
			Total	145,000	30,000	115,000	5,000	12,500	12,500	20,000	20,000	25,000	25,000	25,000
2599	Line Total		Net Amount	145,000	30,000	115,000	5,000	12,500	12,500	20,000	20,000	25,000	25,000	25,000
			Total	145,000	30,000	115,000	5,000	12,500	12,500	20,000	20,000	25,000	25,000	25,000
29	SUBCONTRACTS TOTAL		Net Amount	2,845,000	685,000	2,160,000	85,000	282,500	317,500	630,000	680,000	510,000	215,000	125,000

			Total	2,845,000	685,000	2,160,000	85,000	282,500	317,500	630,000	680,000	510,000	215,000	125,000
30	TRAINING													
32	Group Training													
3201	N.4 Study Tours in the region (10 participants)		Net Amount	80,000	20,000	60,000		20,000		20,000		20,000		20,000
			Total	80,000	20,000	60,000		20,000		20,000		20,000		20,000
3202	N.8 In-country Study Tours (10 participants)		Net Amount	80,000	40,000	40,000	20,000		20,000		20,000		20,000	
			Total	80,000	40,000	40,000	20,000		20,000		20,000		20,000	
3203	Regional Training programmes (20 participants)		Net Amount	60,000	20,000	40,000		20,000		20,000		20,000		
			Total	60,000	20,000	40,000		20,000		20,000		20,000		
3204	Overseas work attachments (6 participants for 3 months)		Net Amount	36,000	18,000	18,000			18,000					18,000
			Total	36,000	18,000	18,000			18,000					18,000
3205	On-the-job training (600 staff)		Net Amount	150,000	62,500	87,500	12,500	25,000	25,000	25,000	25,000	25,000	25,000	12,500
			Total	150,000	62,500	87,500	12,500	25,000	25,000	25,000	25,000	25,000	25,000	12,500
3206	In-service training workshops		Net Amount	24,000	9,000	15,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
			Total	24,000	9,000	15,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
3207	Ecotourism services		Net Amount	15,000	5,000	10,000			5,000		5,000			5,000
			Total	15,000	5,000	10,000			5,000		5,000			5,000
3208	Teachers Training		Net Amount	9,000	3,000	6,000		3,000		3,000		3,000		
			Total	9,000	3,000	6,000		3,000		3,000		3,000		
3209	Training of Outreach Staff		Net Amount	10,000	6,000	4,000	2,000	2,000	2,000			2,000		2,000
			Total	10,000	6,000	4,000	2,000	2,000	2,000			2,000		2,000
3210	Community Leaders Training		Net Amount	15,000	6,000	9,000		3,000	3,000	3,000	3,000	3,000		
			Total	15,000	6,000	9,000		3,000	3,000	3,000	3,000	3,000		
3211	Intra-community forums and management committees		Net Amount	19,000	4,000	15,000		2,000	2,000	3,000	3,000	3,000	3,000	3,000
			Total	19,000	4,000	15,000		2,000	2,000	3,000	3,000	3,000	3,000	3,000
3212	Inter community forums and workshops		Net Amount	25,500	5,500	20,000		2,500	3,000	4,000	4,000	4,000	4,000	4,000
			Total	25,500	5,500	20,000		2,500	3,000	4,000	4,000	4,000	4,000	4,000
3213	NGO advocacy and management capacity		Net Amount	16,000	8,000	8,000	5,000		3,000		3,000			5,000
			Total	16,000	8,000	8,000	5,000		3,000		3,000			5,000
3214	PAMB planning and management capacity		Net Amount	13,000	3,000	10,000			3,000		5,000			5,000
			Total	13,000	3,000	10,000			3,000		5,000			5,000
3215	Participatory monitoring and evaluation		Net Amount	6,000	2,000	4,000			2,000		2,000			2,000
			Total	6,000	2,000	4,000			2,000		2,000			2,000
3299	Line Total		Net Amount	558,500	212,000	346,500	42,500	80,500	89,000	81,000	75,000	81,000	79,500	30,000
			Total	558,500	212,000	346,500	42,500	80,500	89,000	81,000	75,000	81,000	79,500	30,000

39	TRAINING TOTAL		Net Amount	558,500	212,000	346,500	42,500	80,500	89,000	81,000	75,000	81,000	79,500	30,000
			Total	558,500	212,000	346,500	42,500	80,500	89,000	81,000	75,000	81,000	79,500	30,000
40	EQUIPMENT													
4501	Loc. Procurement Equipment (see equipment register)		Net Amount	829,181	311,400	517,781	261,400	50,000		517,781				
			Total	829,181		517,781	261,400	50,000		517,781				
4502	N.15 Vehicles		Net Amount	265,000	165,000	100,000	165,000			100,000				
			Total	265,000	165,000	100,000	165,000			100,000				
4503	CO-Operations		Net Amount	746,000	341,000	405,000	117,000	117,000	107,000	81,000	81,000	81,000	81,000	81,000
			Total	746,000	341,000	405,000	117,000	117,000	107,000	81,000	81,000	81,000	81,000	81,000
4504	Rental of 4-6 seater plane		Net Amount	167,820	42,820	125,000	10,000	16,000	16,820	25,000	25,000	25,000	25,000	25,000
			Total	167,820	42,820	125,000	10,000	16,000	16,820	25,000	25,000	25,000	25,000	25,000
4599	Line Total		Net Amount	2,008,001	860,220	1,147,781	553,400	183,000	123,820	723,781	106,000	106,000	106,000	106,000
			Total	2,008,001	860,220	1,147,781	553,400	183,000	123,820	723,781	106,000	106,000	106,000	106,000
49	EQUIPMENT TOTAL		Net Amount	2,008,001	860,220	1,147,781	553,400	183,000	123,820	723,781	106,000	106,000	106,000	106,000
			Total	2,008,001	860,220	1,147,781	553,400	183,000	123,820	723,781	106,000	106,000	106,000	106,000
50	MISCELLANEOUS													
52	Reporting Costs													
5201	Reporting Costs		Net Amount	68,000	13,000	55,000	3,000	5,000	5,000	7,000	9,000	11,000	13,000	15,000
			Total	68,000	13,000	55,000	3,000	5,000	5,000	7,000	9,000	11,000	13,000	15,000
5202	Audit		Net Amount	56,000	21,000	35,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
			Total	56,000	21,000	35,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
5299	Line Total		Net Amount	124,000	34,000	90,000	10,000	12,000	12,000	14,000	16,000	18,000	20,000	22,000
			Total	124,000	34,000	90,000	10,000	12,000	12,000	14,000	16,000	18,000	20,000	22,000
59	MISCELLANEOUS TOTAL		Net Amount	124,000	34,000	90,000	10,000	12,000	12,000	14,000	16,000	18,000	20,000	22,000
			Total	124,000	34,000	90,000	10,000	12,000	12,000	14,000	16,000	18,000	20,000	22,000
99	TOTAL		Net Amount	9,789,901	3,540,620	6,249,281								
			Total	9,789,901	3,540,620	6,249,281								

2. UNDP:

BL	Description	Implementation		Total	Phase 1	Phase 2	Phase 1			Anticipated Phase 2				
							2002	2003	2004	2005	2006	2007	2008	2009
10	PROJECT PERSONNEL													
11	International Experts & Consultants													
1101	Sustainable livelihood specialist		Net Amount	99,000	54,000	45,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	9,000
			Total	99,000	54,000	45,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	9,000
1199	Line Total		Net Amount	99,000	54,000	45,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	9,000
			Total	99,000	54,000	45,000	18,000	18,000	18,000	9,000	9,000	9,000	9,000	9,000
15	Monitoring & Evaluation													
1501	Duty Travel		Net Amount	80,000	30,000	50,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
			Total	80,000	30,000	50,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
1599	Line Total		Net Amount	80,000	30,000	50,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
			Total	80,000	30,000	50,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
19	PROJECT PERSONNEL TOTAL		Net Amount	179,000	84,000	95,000	28,000	28,000	28,000	19,000	19,000	19,000	19,000	19,000
			Total	179,000	84,000	95,000	28,000	28,000	28,000	19,000	19,000	19,000	19,000	19,000
20	CONTRACTS													
21	Subcontract F													
2101	Improved Animal Husbandry		Net Amount	63,060	18,760	44,300	1,040	8,860	8,860	8,860	8,860	8,860	8,860	8,860
			Total	63,060	18,760	44,300	1,040	8,860	8,860	8,860	8,860	8,860	8,860	8,860
2102	Extensive pastoral management		Net Amount	35,500	10,500	25,000	500	5,000	5,000	5,000	5,000	5,000	5,000	5,000
			Total	35,500	10,500	25,000	500	5,000	5,000	5,000	5,000	5,000	5,000	5,000
2103	Medicinal Plants		Net Amount	21,500	6,500	15,000	500	3,000	3,000	3,000	3,000	3,000	3,000	3,000
			Total	21,500	6,500	15,000	500	3,000	3,000	3,000	3,000	3,000	3,000	3,000
2104	Energy Alternatives		Net Amount	50,000	15,000	35,000	1,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
			Total	50,000	15,000	35,000	1,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
2105	Land Rehabilitation		Net Amount	14,500	4,500	10,000	500	2,000	2,000	2,000	2,000	2,000	2,000	2,000
			Total	14,500	4,500	10,000	500	2,000	2,000	2,000	2,000	2,000	2,000	2,000
2106	Ecotourism services		Net Amount	64,840	19,240	45,600	1,000	9,120	9,120	9,120	9,120	9,120	9,120	9,120
			Total	64,840	19,240	45,600	1,000	9,120	9,120	9,120	9,120	9,120	9,120	9,120
2199	Line Total		Net Amount	249,400	74,500	174,900	4,540	34,980	34,980	34,980	34,980	34,980	34,980	34,980
			Total	251,150	76,250	174,900	6,290	34,980	34,980	34,980	34,980	34,980	34,980	34,980

BL	Description	Implementation	Total	Phase 1	Phase 2	Phase 1			Anticipated Phase 2					
						2002	2003	2004	2005	2006	2007	2008	2009	
29	SUBCONTRACTS TOTAL		Net Amount	249,400	74,500	174,900	4,540	34,980	34,980	34,980	34,980	34,980	34,980	34,980
			Total	249,400	74,500	174,900	4,540	34,980	34,980	34,980	34,980	34,980	34,980	34,980
30	TRAINING													
32	In-service training													
3201	In-service training workshops		Net Amount	48,000	18,000	30,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
			Total	48,000	18,000	30,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
3202	Participatory monitoring and evaluation		Net Amount	6,000	2,000	4,000			2,000		2,000		2,000	
			Total	6,000	2,000	4,000			2,000		2,000		2,000	
3299	Line Total		Net Amount	54,000	20,000	34,000	6,000	6,000	8,000	6,000	8,000	6,000	8,000	6,000
			Total	54,000	20,000	34,000	6,000	6,000	8,000	6,000	8,000	6,000	8,000	6,000
39	TRAINING TOTAL		Net Amount	54,000	20,000	34,000	6,000	6,000	8,000	6,000	8,000	6,000	8,000	6,000
			Total	54,000	20,000	34,000	6,000	6,000	8,000	6,000	8,000	6,000	8,000	6,000
45:01	O & M		Net Amount	8,000	3,000	5,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
49.99	Line Total		Total	8,000	3,000	5,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
50	MISCELLANEOUS													
52	Reporting Costs													
5201	Reporting Costs		Net Amount	4,000	1,500	2,500	500	500	500	500	500	500	500	500
			Total	4,000	1,500	2,500	500	500	500	500	500	500	500	500
5202	Audit		Net Amount	5,600	2,100	3,500	700	700	700	700	700	700	700	700
			Total	5,600	2,100	3,500	700	700	700	700	700	700	700	700
5299	Line Total		Net Amount	9,600	3,600	6,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
			Total	9,600	3,600	6,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
53	Sundries													
59	MISCELLANEOUS TOTAL		Net Amount	9,600	3,600	6,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
			Total	9,600	3,600	6,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
99	TOTAL		Net Amount	500,000	185,100	314,900	40,740	71,180	73,180	62,180	64,180	62,180	64,180	62,180
			Total	500,000	185,100	314,900	40,740	71,180	73,180	62,180	64,180	62,180	64,180	62,180

3. GOVERNMENT OF ALGERIA-OUTPUT BUDGET

Output	Phase 1	Phase 2	Total
Institutional capacity building	1,500,000	5,919,582	7,419,582
Collaborative management	150,000	250,000	400,000
Ecotourism barrier removal	90,000	157,273	247,273
Information, Education, Communication			0
Biodiversity monitoring and evaluation	60,000	85,455	145,455
Management planning	40,000	100,000	140,000
Eco-development & sustainable livelihoods	500,000	2,986,982	3,486,982
TOTAL	2,340,000	9,499,291	11,839,291

4. GEF OUTPUT BUDGET FOR PHASE ONE

Project Outputs	Phase 1 (US\$)	Total
Institutional capacity building	1,248,900	1,248,900
Collaborative management	902,100	902,100
Ecotourism barrier removal	387,840	387,840
Information, Education, Communication	425,820	425,820
Biodiversity monitoring and evaluation	288,980	288,980
Management planning	215,980	215,980
Eco-development & sustainable livelihoods	71,000	71,000
Total Full Project Phase I	3,540,620	3,540,620

5. GEF OUTPUT BUDGET FOR WHOLE PROJECT

Project Outputs	Phase 1 (US\$)	Anticipated Phase 2 (US\$)	Total
Institutional capacity building	1,248,900	2,532,848	3,781,748
Collaborative management	902,100	1,293,848	2,195,948
Ecotourism barrier removal	387,840	781,811	1,169,651
Information, Education, Communication	425,820	670,831	1,096,651
Biodiversity monitoring and evaluation	288,980	428,734	717,714
Management planning	215,980	357,622	573,602
Eco-development & sustainable livelihoods	71,000	183,587	254,587
Total Full Project	3,540,620	6,249,281	9,789,901¹

¹ + US\$ 180,000 GEF money paid for the PDF-B.

6. UNDP OUTPUT BUDGET FOR PHASE I

Output	Phase 1	Total
Institutional capacity building	20,000	20,000
Collaborative management	30,000	30,000
Ecotourism barrier removal	40,000	40,000
Information, Education, Communication	10,000	10,000
Biodiversity monitoring and evaluation	30,000	30,000
Management planning	0	0
Eco-development & sustainable livelihoods	55,100	55,100
Total	185,100	185,100

7. UNDP OUTPUT BUDGET FOR THE FULL PROJECT

Output	Phase 1	Phase 2	Total
Institutional capacity building	20,000	80,000	100,000
Collaborative management	30,000	50,000	80,000
Ecotourism barrier removal	40,000	60,000	100,000
Information, Education, Communication	10,000	30,000	40,000
Biodiversity monitoring and evaluation	30,000	40,000	70,000
Management planning	0	10,000	10,000
Eco-development & sustainable livelihoods	55,100	55,900	111,000
Total	185,100	314,900	500,000

ANNEXES

- ANNEX 1.** HABITAT AND SITE DESCRIPTIONS
- ANNEX 2.** SCHEMATIC MAP OF PROJECT AREA
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ANNEX 1. HABITAT AND SITE DESCRIPTIONS

1. The Tassili n'Ajjer and Ahaggar National Parks, respectively situated in the wilayas of Illizi and Tamanrasset, southeast Algeria, cover a total area of 452,000 km², constituting the largest contiguous protected area in Africa and the second largest in the world. The Tassili n'Ajjer was established as a national park by Ministry of Culture Decree No. 72-168 in 1972. It was further designated as an historic monument in 1979 and declared as a World Heritage Site in 1982 due to its unique collection of pre-historic rock paintings and engravings. Finally it was enlarged to its current size of 72,000 km² and established as a Biosphere reserve in 1986. The adjacent Ahaggar National Park, covering an area of 380,000 km² was formally established in 1987. Due to its vast overall size and relative integrity, the Tassili - Ahaggar complex represents a key biodiversity site in the central Saharan ecosystem and - together with the ecologically connected areas of Fezzan, Air-Tenere and Adrar, in neighbouring Libya, Niger and Mali – it potentially constitutes one of the prime sites in the world for desert biome conservation.

2. Geologically, the region is constituted by the huge Tassili plateau, part of the Ordovician and Devonian sandstone layer and the extensive Precambrian crystalline massifs characterising the Ahaggar area. The plateau with an altitude that varies from about 1,500m in the north to 1,800m in the centre and south, owes its morphological structure and its unique network of steep-sided valleys to a succession of wet and dry periods in palaeoclimatic wet periods. The numerous Ergs were formed from the great lakes, present throughout the region until the end of the Upper Pleistocene. In some areas flat plateaux have been formed by fluvial action, their surfaces furrowed by narrow, deep gorges and dry riverbeds. Elsewhere wind erosion and the arid climate have strewn the plateaux with rock formations resembling known as "stone forests". The region is dominated by three main massifs of which the Atakor is the most important and highest with peaks of up to 3000 m (Ilaman, Tahat). To the north is the massif of Tefedest with peaks surpassing 2000 m and to the east the lower massif of Anahef. In the deeper valleys and depressions there are many temporary and permanent water holes or gueltas, three of which are currently being proposed as Ramsar sites.

3. The climate is hyper-arid to sub-arid, characterised by extreme meteorological variability and uncertainty. Mean annual rainfall ranges from 20mm to 100mm, with marked variations across years and seasons. Precipitation may be absent for several years at a given location, while elsewhere sudden rainfall may give rise to localised floods, which may lead in severe cases to drowning of livestock and humans. At altitudes above 2,400m rain may fall in any season, and in the winter, snow occasionally appears on the highest peaks. Mean annual temperature recorded at an altitude of 1,100m is about 20°C but absolute temperatures may range from -7°C to 50°C depending on altitude and season. Mean monthly relative humidity in the town of Tamanrasset is 17% at 13:00 hours in July, and 21% at the same time in December. The dominant wind is the northeast trade wind.

4. The ecology of the Tassili-Ahaggar is characterised by the interpenetration of tropical and Mediterranean elements with Saharo-Sindien, Sudano-Deccan and Mediterranean species. Following an altitudinal gradient, three vegetational zones are generally recognised: tropical zone up to approximately 1,800 - 1,900m, a lower Mediterranean zone from 1,900 m to 2,300 - 2,400m and an upper Mediterranean zone from 2,400 to the highest summits. Floristic diversity is presently estimated at about 300 species with high levels of endemism, locally reaching up to 50%. The most notable palaeo-endemic relict tree species is the cypress "tarout" *Cupressus dupreziana*, of which about 240 specimens remain. Out of the further 72 endemic species so far listed, 36 are considered endangered, the most notable being Wild olive (*Olea laperrini*) and myrtle (*Myrtus nivellei*), commonly growing at the bottom of wadis or beside permanent or temporary waterholes. Other endemic or rare species include *Potamogeton hoggariensis*, *Silene hoggariensis*, *Lupinus tassilicus* *Senecio hoggariensis*, *Ficus ingens*, *Boerhaavia viscosa*, *Trianthema pentandra*, *Spergularia fontenellei*, *Bergia suffruticosa*, *Hypericum psilophyton*, *Convolvulus fatmensis*, *Anticharis glandulosa*, *Utricularia exoleta* and *Phagnalon garamantum*. There are also many Sudanese flora elements such as the genera *Merrua*, *Salvidora* and *Callotropisa*. Rocky and sand species include *Mesembryanthemum gaussonii*,

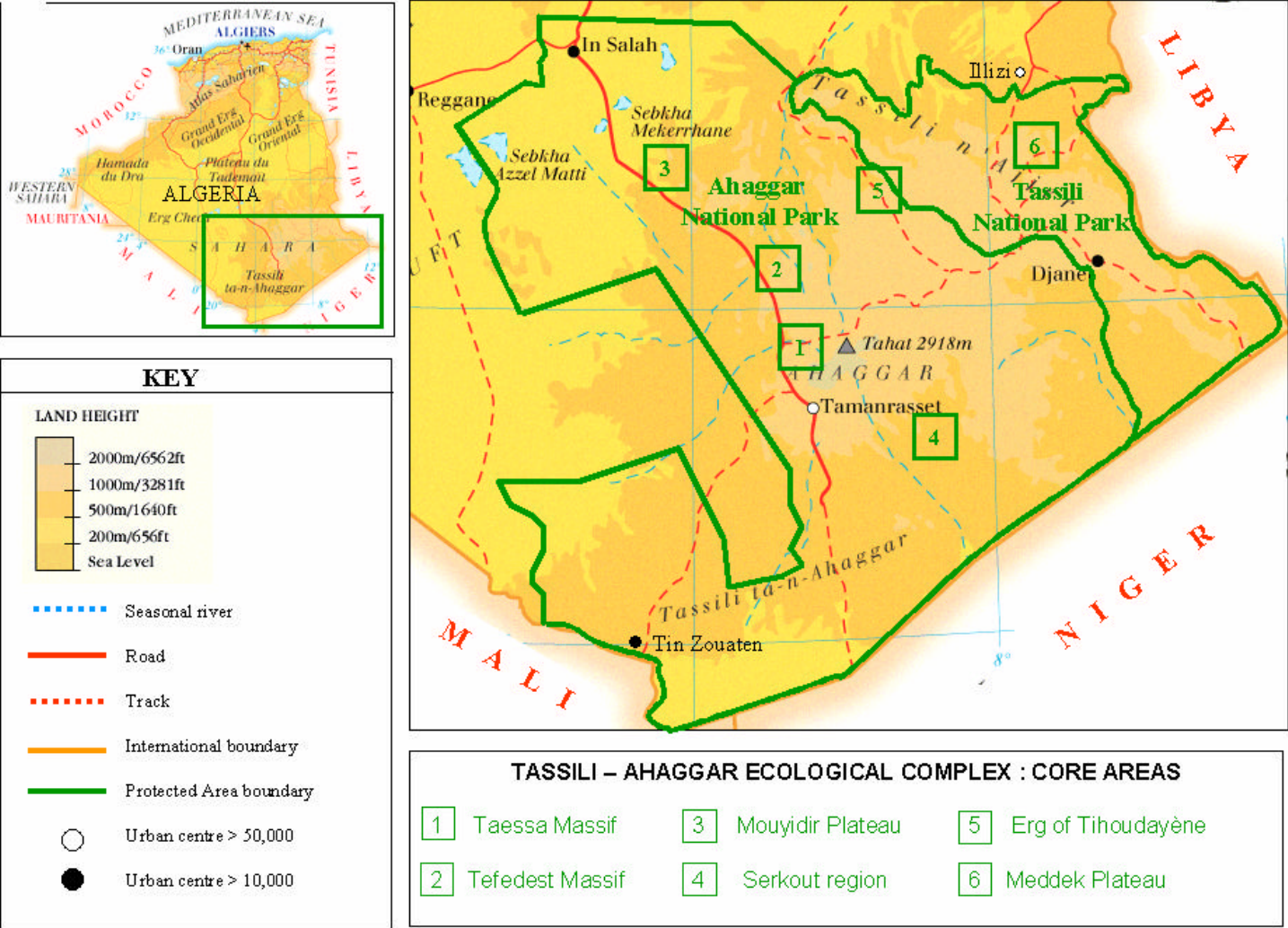
Pseuderucaria clavata and *Acacia scorpiodes*. In the extremely unpolluted fresh water of the Iherir valley, aquatic mosses give rise to travertine dams, waterfalls and pools. Under these conditions, riverine species occur such as *Typha* spp., *Juncus* spp., *Phragmites* spp., *Adiantum* and aquatic vegetation such as *Chara* spp., *Myriophyllum* spp. and *Potamogeton* spp. Other riverbed species include *Trianthema pentandra*, *Silene kiliana*, *Lupinus pilosus* and *Convolvulus fatmensis*. Trees and larger shrubs such as Tamarix are restricted in the channels of the dry river valleys.

5. The avifaunal component includes a total of 134 species of which 14 endemic to the region and 4 species first recorded during the PDF-B. The region is particularly important for resting migratory Palaearctic birds. Species recorded in the area include Golden Eagle (*Aquila chrysaetos*), Long-legged buzzard (*Buteo rufinus*), Bittern (*Botaurus stellaris*), Little bittern (*Ixobrychus minutus*), Night heron (*Nycticorax nycticorax*), Squacco heron (*Ardeola ralloides*), Purple heron (*A. purpurea*) White stork (*Ciconia ciconia*), Glossy ibis (*Plegadis falcinellis*), Short-toed eagle (*Circaetus gallicus*), Lesser kestrel (*Falco naumanni*), Quail (*Coturnix coturnix*), Spotted crane (*Porzana porzana*), Corncrake (*Crex crex*) and Stone curlew (*Burhinus oedipnemos*). Several Palaearctic species breed in the region including Coot (*Fulica atra*) and Moorhen (*Gallinula chloropus*) as well as a relict sub-species of Barbary partridge (*Alectoris barbara duprezii*).

6. The 36 or so mammals are mostly typical of arid climates, including 2 recently extinct species (*Oryx gazella*, *Addax nasomaculatus*) and 7 species of bats. Among the higher mammals, several species are reported as globally threatened or endangered in the IUCN Red Data Book, including Barbary sheep (*Ammotragus lervia*), Slender-horned gazelle (*Gazella leptoceros*) and, among the carnivores, Fennec fox (*Fennecus zerda*) and the flagship species cheetah (*Acinonyx jubatus*). Locally threatened species include gundi (*Ctenodactylus vali*) and large-toothed rock dassy or hyrax (*Procavia capensis*).

7. The Tassili-Ahaggar also supports 12 species of reptiles and 2 species of amphibians. Four species of fish, relicts of a more humid past climate are still found in some permanent gueltas. Among the invertebrates a large numbers of spiders and dragonflies are recorded including *Orthetrum ransonneti* and *O. sabina*.

ANNEX 2. SCHEMATIC MAP OF PROJECT AREA



ANNEX 3. THREATS ANALYSIS

Based on the results of the project formulation workshop held in Tamanrasset during July 2000, the table below provides a summary of the main threats to biodiversity in the project region, their root causes and associated management issues and the main actions proposed to mitigate their influence.

Root Causes and Management Issues	Alternative Strategy (Design elements)
General threats	
<ul style="list-style-type: none"> a. Weak overall management capacity of PAMUs Lack of suitably qualified and trained personnel Lack of clear legal texts and statutes Limited knowledge of existing laws and inadequate application of regulations Lack of equipment and infrastructure for management activities b. Limited dialogue and coordination between park managers and local communities Insufficient involvement of local communities and civil society in the conservation and sustainable use of natural resources c. Insufficient public awareness d. Weak knowledge of natural ecosystems and biological processes e. Lack of adequate management plans for the two national parks Insufficient coordination of activities at the level of the wilayas and of the two protected areas 	<ul style="list-style-type: none"> a. Institutional capacity for field conservation enabled through legal, human resources and infrastructure development – see Output 1. b. Collaborative management of protected areas is operational based on the adaptive, equitable and sustainable use of biodiversity resources – see Output 2. Ecotourism is managed to demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs – see Output 3. Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities – see Output 7. c. Information Education Communication (IEC) efforts are building local and national constituencies for biodiversity conservation – see Output 4. d. Monitoring and evaluation of biodiversity resources, their utilization and management has been tested, and a system is operational – see Output 5. e. Management plans are developed and biodiversity conservation is firmly inscribed on the local development agenda – see Output 6.
Proximate Threat: Overexploitation of fuel wood and medicinal plants	
<ul style="list-style-type: none"> a. Weakening of traditional management practices regulating 	<ul style="list-style-type: none"> a. Creation and strengthening of conservation-enabling institutions, which confer strong authority and status on

Root Causes and Management Issues	Alternative Strategy (Design elements)
<p>the utilisation of natural resources</p> <p>b. High unemployment, poverty and lack of alternative sources of energy</p> <p>c. Unregulated exploitation of medicinal plants for commercial purposes</p>	<p>legally sanctioned communal natural resource regimes (output 2).</p> <p>b. Promotion of energy alternatives by demonstrating low-cost, off-grid technologies and providing micro-credits for the distribution of appliances such as solar stoves and ovens (output 7).</p> <p>c. Pilot scheme to plant produce and market economically valuable medicinal plants (output 7).</p>
Proximate Threat: Hunting	
<p>a. Illegal hunting with vehicles and fire arms and indiscriminate hunting for commercial purposes</p> <p>b. Predator-control for protection of livestock (e.g. cheetah)</p> <p>c. Degradation of wildlife natural habitats</p>	<p>a. Formal and on-the-job training to operationalize policing, intelligence gathering, enforcement and reporting functions and extension of police powers to selected PAMU staff (output 1)</p> <p>b. Development of a compensation scheme for cheetah predation on livestock and enhanced veterinary services (output 2).</p> <p>c. Development of micro-plans to strengthen protection of key biodiversity resources, through the establishment of integrally protected core areas, improved rangeland and water point management and contribution to land rehabilitation schemes based on the planting of native tree species (outputs 2 and 7).</p>
Proximate Threat: Overgrazing	
<p>a. Scarcity and sub-optimal distribution of water points.</p> <p>b. Ineffective and unregulated rangeland management leading to sedenterization of nomads</p>	<p>a. Support to extensive pastoral management through the establishment of water collecting ponds in improved rangelands (output 7).</p> <p>b. Strengthening of local tenure arrangements, rangeland custodianship and management practices (outputs 2 & 7)</p>
Proximate Threat: Habitat / landscape modification	
<p>a. Unregulated development of infrastructure, exploitation of quarries and inadequate solid waste and water treatment</p>	<p>a. Definition of legal procedures and regulations for licensing of economic activities within PAs and standardisation of monitoring, site inspection and environmental auditing protocols (output 1)</p>

Root Causes and Management Issues	Alternative Strategy (Design elements)
facilities b. High impact events such as car rallies (e.g. Paris-Dakar) c. Inappropriate animal husbandry practices	b. Strengthening of the capacity of the PAMU and other regulatory bodies to license ecotourism activities according to best practice guidelines and ensure full compliance with procedures set out in the licenses and related EIAs (output 3) c. Improved animal husbandry schemes based on goat-fattening and the raising of local chicken varieties (output 7)
Proximate Threat: Uncontrolled tourism	
a. Unprofessional and unscrupulous tour operators b. Ineffective management of tourism activities c. Unregulated development of hotels and visitor facilities d. Excessive utilisation of water	a. Sensitise tourism operators, potential investors and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism b. (i) Conduct training programmes for interpretation and guiding services and the management of visitor interpretation facilities; (ii) facilitate local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services; (iii) design and implement in collaboration with the private sector and other stakeholders, a finely-targeted marketing strategy c. Strengthen the capacity of the PAMU and other regulatory bodies to license and monitor ecotourism activities according to procedures set out in the licenses and related EIAs d. Formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services (See output 3)

ANNEX 4. INCREMENTAL COST ASSESSMENT

Broad Development Goals

Economic policy: The GOA's principal economic goal is 5% annual growth in GDP, with an increasing role for the private sector in meeting growth targets. In agriculture the GOA recently confirmed that they intend to return the agricultural sector back to private management. At the project site all government run farming cooperatives have been disbanded or transferred to private ownership, however irrigated water remains a subsidized commodity, and camel herders receive a per head subsidy for calves.

Environment policy: The 1983 Law on Protection of the Environment provided the legal framework for Algeria to develop a system of protected areas, under which it has designated 10 National Parks. This includes integral reserves, 2 biosphere reserve designations and a World Heritage Site, and 4 hunting reserves. The total area of coverage is over 500,000 km² or more than 20% of the countries surface area. Algeria ratified the Convention on Biological Diversity in 1995. It is currently formulating its BSAP, and is slowly building the capacity to manage its national parks including the creation of the National Agency for Nature Conservation (ANN), The General Directorate for the Environment (DGE), and finally the High Council for the Environment and Development. The latter coordinates and integrates environment and development policies between governmental ministries.

Global Environmental Objectives

Global Significance: The National Parks of Tassili n'Ajjer and Ahagger form the largest contiguous block of Desert biome. They contain three important massifs, Ahnet Immidir, Tassili n' Ajjer and Ahagger which are exceptionally rich areas of floral diversity as they are a refuge for most of the Mediterranean flora in the biome. The consequent isolation between the massifs has led to localized concentrations of floral endemism as much as 50% of all plants in some cases. In total 73 endemic species have been identified, of which 36 are endangered, but floral inventories are far from complete. It is thought the floral diversity and the relative inaccessibility of the massifs have attracted higher than normal concentrations of fauna. Among the fauna, more than 4 species of mammal are endangered, and 12 relict species of reptiles, 2 relict amphibian species and 4 relict fish species.

Threats to biodiversity of Global Significance: Through a consultative exercise the PDF B identified the following threats: overexploitation of vegetation for fuel wood, charcoal, medicinal and culinary use and forage; poaching; and the relatively minor threat of habitat modification from agriculture, infrastructural development; the effects of pollution and waste. The objective of the project is to conserve and sustainable use this globally significant biodiversity, against these threats.

Baseline

Those activities expected to occur during the life of the project are described below under the output on which they will have an impact.

Output 1: Institutional Capacity Building for Field Conservation enabled through legal and human resources and infrastructural development

Over the life of the project the National Park Offices for A'Hagggar and Tassili n'Ajjer will incur recurrent costs of around USD 57,400,000 over the life of the project. This includes: the salaries of over 500 park staff; the maintenance of a nursery, access tracks, park offices, accommodation and guard posts; vehicles and communications etc. The Wilaya's of Ellizi and Tamanrasset are planning USD 408,862,500 in improvements to roads, airport facilities, and telecommunications, solid and liquid

waste facilities and services. These investments will facilitate tourism and help to mitigate the environmental impact of urbanization in the two parks.

Output 2: Collaborative management of protected areas is operational, based on adaptive, equitable and sustainable use of biodiversity resources.

Over the life of project the Wilaya will spend USD 4, 000,000 on meetings of the locally elected representatives of the People's Assembly, to approve government expenditure and enact law. The growing number of NGO's involved in natural resource management will spend an estimated USD 1,200,000 in operational costs. The salaries of over 500 local community guards, who help manage the natural resources of the two parks, are listed under output 1. However there is currently no local consultation by the Park during either the development or implementation of management plans, and there are no plans to introduce a consultation process.

Output 3: Eco-tourism is managed to demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs

Although visitor numbers to the two parks are currently estimated at just a few thousand per year, the conditions for an increase in numbers are now improving. The two parks will continue to collect gate fees from visitors coming into the two parks and entrance fees to the museum; hotels will continue registering guests; and guards will remain at some of the most important archaeological sites to oversee visitors at a total estimated cost of USD 9,815,750. Some leaflets and signs informing tourists of popular tourist circuits and best conduct in the parks have already been printed and distributed to tourists from this stock. As yet no best practice guidelines or licensing of the 150 active tourist operators have been adopted within the two parks, and the parks' capacity to administer and monitor such guidelines or licenses is limited.

Output 4: Information Education Communication (IEC) efforts are building and national constituencies for Biodiversity Conservation

In the absence of this project no coordinated IEC activities on biodiversity conservation are foreseen.

Output 5: Monitoring and Evaluation of Biodiversity resources, their utilization and management has been tested, and a system is operational.

The INRF will incur costs of USD 38,000 as they continue to monitor changes in the endangered Tarout Cypruss; the National Meteorological Office will continue to monitor weather patterns in the two parks at an estimated cost of USD 6,475,000; and WWF will monitor changes in important wetlands in the two parks at an estimated cost of USD 25,000 including the Algerian in-kind contributions. The estimated cost of employing community guards to monitor activities within the two parks is listed under output 1.

Output 6: Management Plans are developed and biodiversity conservation is firmly inscribed on the local development agenda

With the assistance of UNSECO Tassili National Park developed a management plan in the late 1980's, and A'haggar National Park has been divided into four zones for park management. In practice park activities are programmed annually, following approval of the park's annual budget by the Ministry of Culture and the Orientation Council. The total cost of budget formulation and approval, including supporting studies over the life of the project is estimated at USD 12,271,000. The two Wilaya plan to spend over the life of the project a further USD 36 662 500 in urban planning, and impact assessment to minimize the environmental impact of urban development, including a feasibility assessment for wind power generation.

Output 7: Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies, and communities.

- ⚡ *Goat fattening Scheme:* the government plans to invest USD 300,000 to provide poor families with goats and support in the production of supplemental fodder.
- ⚡ *Support for extensive agriculture:* The GOA plans to invest USD 1,187,500 to dig 95 new water holes for nomadic pastoral Tuareg to water their animals.
- ⚡ *Incentives for Cultivated Agriculture:* combined investments, of USD 9,167,390 million, in irrigation and drainage and seed and root-stock for windbreaks and a range of crops are planned by the GOA to encourage private sector agriculture, in areas identified as being suitable.
- ⚡ *Support to small farms:* the GOA plans to invest USD 687,809 in date palm trees; fruit trees and the maintenance of traditional irrigation systems in orchards to relieve poverty and ease the transition to privatization of the agricultural sector for small farmers.
- ⚡ *Energy Alternatives:* The GOA will be removing subsidies for bottled gas, while investing USD 6,475,000 in solar and fossil fuel electricity generation capacity, although this investment will not benefit all communities. Some will be left with higher gas prices, and will not be linked to the power grid.
- ⚡ *Rehabilitation of degraded areas:* The GOA plans to invest USD 1,192,841 in tree planting and other soil stabilization techniques to rehabilitate urban peripheries, degraded by over collection of fuel wood, and dunes.
- ⚡ *Eco-tourism:* Around 150 tourist businesses operate in the two parks, as well as a number of artisans who work leather, metal and other materials primarily for the tourist trade. The GoA plans to spend USD 3,085,000 to help attract tourism to the area, including restoration of archaeological and historical paintings, artefacts and the construction of a mini-zoo.

The GEF Alternative

Socio-economic conditions continue to change rapidly in Algeria, which in turn have an impact on the management of Tassili-Ahaggar region. It is reasonable to expect that without GEF intervention existing threats to biodiversity will escalate and that habitat conditions will become degraded at an increase rate, if action is not taken.

Incremental costs have been distinguished from co-financing according to the following principles:

- ⚡ The GEF will fund all one-time costs to improve the capacity of the park authorities to manage the parks for biodiversity conservation and sustainable use, including the regulation of eco-tourism;
- ⚡ co-financing will cover all recurrent costs of park management to demonstrate financial sustainability of park management. However in some cases The GEF will initially absorb additional recurrent cost for park management generated by the project, but these will be fully absorbed by sustainable sources of co-financing in a transition period during the life of the project;
- ⚡ The GEF will fund one-time technical assistance costs to assist local communities to make the transition to alternative livelihood practices; and
- ⚡ The GOA will redirect baseline resource, to support alternative livelihoods being promoted by the project, and avoid baseline activities conflicting with the nature and intent of these alternatives.

Output 1: Institutional Capacity Building for Field Conservation enabled through legal and human resources and infrastructural development

The GEF will finance the costs of refocusing and boosting park staff capacity to conserve biodiversity in the two parks, and generate finances for park management from park concessions; and adopt

participatory and co-management practices. This will include legal review and drafting; all construction costs listed and necessary to improve park management; staff training in biodiversity conservation management techniques. The GEF will also absorb the staff salaries of all newly recruited park staff. However by year 3 the GOA will co-finance all staff salaries, maintenance and other recurrent costs of managing the two parks.

Output 2: Collaborative Management of protected areas is operational based on the adaptive, equitable and sustainable use of biodiversity resources.

The GEF will fund the full salaries and costs of the Collaborative Management Team to train park staff in collaborative techniques, sensitize local communities to the idea of co-management; broker pilot agreement between local communities and park authorities; and foster effective co-management fora. Once established the GOA will co-finance the costs of maintaining co-management institutions and practices, established by the Collaborative Management Team.

Output 3: Ecotourism is managed to demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs.

The GEF will fund all activities to enable the park authorities to license and regulate eco-tourism practices in the two parks, and the cost of developing a marketing strategy for attracting eco-tourism. This will include: developing best practices guidance and licensing systems; training park staff and guides in administering and enforcing best practices; sensitizing eco-tourism operators to best practices. The GOA will co-finance the full costs of implementing the eco-tourism plan, as well as the costs of communicating with, administering and enforcing eco-tourism activities within the two parks. Tourism operators will also have access to micro-credit (see output 6), to cover investment costs required to conform to best-practice guidelines, issued by the two parks.

Output 4: Information Education Communication (IEC) efforts are building local and national constituencies for biodiversity conservation

The GEF will fund the costs of designing a 7 year IEC programme and implementing the first 6 years, including programmes based in the field; tours and workshops; coverage of project activities in TV radio and print; and documentaries. In year 6 the GEF will fund the costs of a second 7-year phase of the IEC programme. The GOA will co-finance the costs of Park staff involvement, as defined under output 1, and by the end of year six assume the full cost of implementing the remaining first and full second phase of the IEC programme.

Output 5: Monitoring and evaluation of biodiversity resources, their utilization and management has been tested, and a system is operational.

The GEF will fund the costs of setting-up the BMU with qualified staff; designing and implementing over 5 years, a monitoring and evaluation programme, including efforts to engage stakeholders in participatory monitoring and evaluation. By the end of year 5 the monitoring and evaluation programme will be entirely co-financed.

Output 6: Management plans are developed and biodiversity conservation is firmly inscribed on the local agenda

The GEF will fund the full costs of developing all management plans for conservation and sustainable use of biodiversity in the two parks, in participatory manner, while the GOA will fund the costs of implementing the plans.

Output 7: Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities.

- ⌘ *Micro-credit:* The GEF will fund the costs of setting up a micro-credit scheme and 15% of its capitalization to assist project proponents with otherwise prohibitive initial investment costs to engage in sustainable use schemes being promoted under the GEF Alternative. Co-financing will provide the remaining 85% capital for the micro-credit scheme.
- ⌘ *Improved animal husbandry:* Under the baseline the GOA has earmarked USD 300,000 to buy goats and promote supplemental feed production as a livelihood generation programme for poorest sections of society in the two parks. Under the alternative these resources will be redirected to promote better management of rangeland resources to supply goat fodder, and a scheme to add value to milk, meat and skin products to generate equivalent income under the baseline. The GEF will fund all costs to promote rangeland tenure agreements; fund the costs of training participants in improved extensive range management techniques; and techniques to add value to goat products. The GOA will fund the costs of equipment to demonstrate processing and packaging techniques to add value to goat products, while micro-credit will be available for individuals to invest in equipment themselves to scale-up the demonstrations.
- ⌘ *Extensive Pastoral Management:* Under the baseline the GOA plans to invest USD 1,187,500 to dig 95 new water holes to provide additional water resources for nomadic pastoralists. Under the GEF alternative the GOA will instead dig shallow collecting ponds to hold rainwater. Collecting ponds provide additional water resources, but dry-out during dry periods. This helps to maintain a balance between available pasture and the size of nomadic livestock herds, and prevent overgrazing. The GEF will fund the cost of studies to ensure optimal location of collecting ponds, to maintain nomadic mobility, effectively utilize rangeland resources, and minimize overgrazing. The GEF will also fund the costs of a process to redefine, secure agreement and management arrangements for rangeland tenure rights that promote long-term custodianship and minimize unsustainable practices such as over-grazing and free riding.
- ⌘ *Medicinal Plants:* Under the baseline the GOA plan's to invest USD 9,167,390 to encourage cultivated agriculture. Under the alternative the GOA will re-focus these resources on encouraging medicinal plant cultivation to relieve pressure from over-collection of wild specimens. The GEF will fund the costs of adapting, transferring and demonstrating technical methodologies to cultivate, process, store and market medicinal species over-collected in the two parks and the costs of brokering sustainable collection agreement of wild specimens. The GOA will fund all necessary infrastructure including road access and irrigation, for cultivation and the costs of enforcing sustainable collection agreements of wild resources in the two parks.
- ⌘ *Energy Alternatives:* The GOA is removing subsidies from bottled gas and investing in solar technology as an alternative energy source. The GEF will fund the costs of demonstrating additional low-cost off-grid energy technologies, such as solar stoves, and energy efficient wood stoves to communities not targeted by the GOA's solar technology investment, and micro-credit will be made available to assist local communities with initial investments in solar and energy efficient technologies, and scale up the technology demonstrations.
- ⌘ *Land rehabilitation:* The GEF will compliment, GOA's rehabilitation scheme to plant trees and fix the soil in urban peripheries and dune areas, by funding the incremental costs of establishing and maintaining native tree species over exotic tree species.
- ⌘ *Ecotourism services:* Under output 3 the GOA will fund the costs of implementing an eco-tourism strategy to help generate gate and concessions fees for park management as well as livelihoods compatible with biodiversity conservation, while the GEF will fund all the start-up costs of developing the strategy. Because of the highly fickle nature of the tourist market, the GEF will fund the costs of assisting artisans to diversify the markets they sell their products to, and reduce the impact caused by fluctuating tourist numbers. This will include assisting artisans to vary the quality of their products, and to identify, and sell their products to alternative, non-tourist markets. Micro-credit will be available to artisans for necessary investment costs.

Scope of Analysis

The scope of analysis includes the geographic, institutional, market, policy and legislative factors having an impact on the projects target areas, as well as the costs and benefits generated from the project activities. This includes: (a) the two parks; (b) all stakeholders in the two parks (c) socio-economic forces acting on the two parks and (c) government policies, legislation and plans effecting the two parks.

Costs

The total project costs are US\$ 22,153,791. Project co-financing (GOA and UNDP) amounts to 56% of this total. Together with the baseline activities, the total alternative scenario will cost US\$ 4,569,794,592 of which the total project costs amount to 0.5%. This is a sustainable use project that builds on a substantial baseline, and which is complemented by significant co-financing. The GOA is fully committed to this project and its sustainability beyond the life of the project.

Incremental Cost Matrix

Component	Scenario	Cost (USD)	Domestic Benefit	Global Benefit
Output 1: Institutional capacity building for field conservation enabled through legal and human resource and infrastructural development	Baseline	4,466,262,500	Management of archaeological heritage in the two parks for national prosperity	Little focus on management of the two parks for conservation and sustainable use of biodiversity in the two parks
	Alternative	11,259,409	Improved capacity of park authorities to manage of biodiversity conservation and sustainable use in the two parks	Institutional mandate and capacity to manage conservation and sustainable use of globally significant biodiversity in the two parks
	Increment	3,781,748	Improved capacity of park authorities to manage of biodiversity conservation and sustainable use in the two parks, less the recurrent costs	Institutional mandate and capacity to manage conservation and sustainable use of globally significant biodiversity in the two parks
Output 2: Collaborative management of protected areas is operational, based on adaptive, equitable and sustainable use of biodiversity resources	Baseline	5,200,000	Little cooperation and buy-in of local communities in park management of natural resources	Loss of globally significant biodiversity in the two parks
	Alternative	2,618,028	Cooperation and collaboration between park authorities and local communities in the management and use of the parks' natural resources	Collaboration of local communities and park authorities promoting effective conservation and sustainable use of biodiversity in the two parks
	Increment	2,195,948	Cooperation and collaboration between park authorities and local communities in the management and use of the parks' natural resources.	Collaboration of local communities and park authorities promoting effective conservation and sustainable use of biodiversity in the two parks
Output 3: Eco-tourism is managed to demonstrate innovative, environmentally-compatible, economic activities meeting sustainable livelihood needs	Baseline	9,815,750	Some eco-tourism is encouraged which generates some income for local communities, although activities are not regulated and biodiversity is being lost as a result	Globally significant biodiversity is being lost because of eco-tourism

Component	Scenario	Cost (USD)	Domestic Benefit	Global Benefit
	Alternative	1,426,492	Eco-tourism plan is developed and implemented to encourage income generation and fees for park management and activities are regulated.	Eco-tourism adheres to best practice guidelines, and generates fees for park management to conserve and sustainably use globally significant biodiversity in the two parks
	Increment	1,169,651	Eco-tourism plan is developed, and eco-tourism best practices are developed, and all park staff and tourist operators are trained	Eco-tourism adheres to best practice guidelines, and generates fees for park management to conserve and sustainably use globally significant biodiversity in the two parks
<u>Output 4:</u> Information education communication (IEC) efforts are building constituencies for biodiversity conservation	Baseline	0	Sporadic communication to promote an understanding of the impacts of natural resource use on the environment	Local communities are destroying or degrading globally significant biodiversity because of a poor understanding of the impact of their activities in the environment
	Alternative	1,115,219	Better understanding by local communities of the long-term impact of resource uses on the environment	Local communities are more aware of the impact of their activities on the environment, and are prepared to engage in alternative less environmentally damaging means income generation.
	Increment	1,096,651	Better understanding by local communities of the long-term impact of resource uses on the environment	Local communities are more aware of the impact of their activities on the environment, and are prepared to engage in alternative less environmentally damaging means income generation.
<u>Output 5:</u> Monitoring and evaluation of biodiversity resources, their utilization and management tested, and a system operational	Baseline	6,513,000	Sporadic monitoring of biodiversity and anthropogenic activity in the two parks	
	Alternative	886,321	Results from strengthened and coordinated participatory monitoring and evaluation of biodiversity trends in the two parks and causes of change, used by park management to modify and adapt park	Adaptive management techniques applied by park authorities to improve the effectiveness of park management and the resulting conservation and sustainable use of globally significant biodiversity in the two parks.

Component	Scenario	Cost (USD)	Domestic Benefit	Global Benefit
			management plans, during and beyond the life of the project	
	Increment	717,714	Results from strengthened and coordinated participatory monitoring and evaluation of biodiversity trends in the two parks and causes of change used by park management to modify and adapt park management plans, for the first six years of the project.	Adaptive management techniques applied by park authorities to improve the effectiveness of park management and the resulting conservation and sustainable use of globally significant biodiversity in the two parks.
Output 6: Management plans are developed and biodiversity conservation is firmly inscribed on the local development agenda	Baseline	48,933,500	Park Resources programmed annually, without consistent direction towards long-term goals or integration with Wilaya development plans	Ineffective use of park resources leading to loss of globally significant biodiversity in the two parks
	Alternative	601,878	Park resources programmed and disbursed to achieve conservation and sustainable use of biodiversity in the two parks, and integrated and consistent with Wilaya development plans	Effective use of park resource promoting conservation and sustainable of the two park's biodiversity
	Increment	573,602	Park resources programmed for conservation and sustainable use of biodiversity in the two parks, and integrated and consistent with Wilaya development plans	Effective planning of park resource to promote conservation and sustainable of the two park's biodiversity
Output 7: Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities	Baseline	11,440,650	Unsustainable or destructive livelihood practices, generating short-term income, but degrading the natural resource base	Degradation and destruction of globally significant biodiversity.
	Alternative	4,041,445	Sustainable livelihood alternatives, and energy use demonstrated and adopted	Globally significant biodiversity resources used in a more sustainable manner
	Increment	254,587	Technical assistance, training,	Conditions created enabling local

Component	Scenario	Cost (USD)	Domestic Benefit	Global Benefit
			and access to micro-credit available to local communities to encourage and facilitate adoption of alternative sustainable livelihoods and energy use options	communities to adopt sustainable livelihood alternatives and energy use options, thus promoting globally significant biodiversity resources used in a more sustainable manner
	PDF B GEF Co-financing	180,000 25,000		
	Total Baseline Total Alternative Total GEF	4,548,165,400 32,489,082 9,789,901		

ANNEX 5. LOGICAL FRAMEWORK

Intended Outcome as stated in the Country Results Framework: Improved capacity of national/sectoral authorities to plan and implement integrated approaches to environmental management and energy development that respond to the needs of the poor			
Outcome indicator as stated in the Country Programme Results and Resources Framework, including baseline and target: Tassilli-Ahaggar biodiversity conservation and management plans, benefiting the local poor implemented: Pilot Intervention for Innovation and Scaling-Up			
Applicable Strategic Area of Support: Institutional framework: biodiversity conservation for sustainable livelihood			
Objectives	Output Targets (Indicators)	Means of Verification	Assumptions & Risks
Goal: To protect globally significant biodiversity of the Central Saharan region.	<ol style="list-style-type: none"> 1. Biological monitoring in Y8 indicates that the integrity of the Tassili n'Ajjer NP and Ahaggar NP remains secure 2. Populations of indicator species remain at viable levels 3. Populations of rare and endangered flora and fauna remain at current levels or are enhanced 	<ol style="list-style-type: none"> 1. Monitoring records and terminal evaluation 2. Biological surveys 3. Biological surveys 	<ul style="list-style-type: none"> ✍ Cross-section of Central Saharan ecosystem exists within the Protected Areas including viable populations of threatened species.
Purpose: The Tassili N'Ajjer NP and the Ahaggar NP are managed to ensure the conservation and sustainable use of globally significant biodiversity.	<ol style="list-style-type: none"> 1. Permanently staffed, technically autonomous and financially sustainable Protected Area Management Units are established. 2. The protected areas are collaboratively managed, by involving all key stakeholders in the adaptive, equitable and sustainable use of biodiversity resources 3. The protected areas are firmly inscribed as the operational framework for local planning and development activities 	<ol style="list-style-type: none"> 1. Independent evaluation 2. Independent evaluation 3. Management plan and regional development plans 	<ul style="list-style-type: none"> ✍ Re-orientation of PAMU towards biodiversity conservation is actively supported by local and national institutions ✍ Government is willing to test new participatory management methods and share responsibilities and accountability ✍ Baseline of sustainable development is assured
Output 1: Institutional capacity for field conservation enabled through legal, human resources and infrastructure development	Phase 1 <ol style="list-style-type: none"> 1.1 PAMU mandate and organigram redefined by Y2 4Q 1.2 Legal procedures for establishing Collaborative Management (CM) agreements, licensing of economic activities and extension of police powers revised and approved 1.3 Basic training and recycling of junior personnel completed. 1.4 Additional management staff recruited by Y1 4Q, trained and redeployed by Y3 Q4 1.5 Regional study tours conducted 	<ol style="list-style-type: none"> 1.1 Legal texts 1.2 Legal texts 1.3 APR 1.4 PAMU records 1.5 APR 1.6 Infrastructure designs 	<ul style="list-style-type: none"> ✍ Legal modifications are officially approved and enacted in a timely fashion. ✍ Additional staff with appropriate profile in biodiversity conservation are available for recruitment ✍ Management staff are willing to be redeployed to sub-headquarters and outposts

	<p>1.6 Plans for infrastructure development completed by Y2 Q4</p> <p>1.7 Park headquarters constructed by Y3 Q4</p> <p>1.8 Vehicles and basic field, office and technical equipment procured</p> <p>Phase 2</p> <p>1.9 PA bye-laws and regulations enacted by Y5 4Q</p> <p>1.10 Regional workshops and overseas attachments attended</p> <p>1.11 Participatory management, monitoring and law enforcement procedures being applied by Y5</p> <p>1.12 All infrastructure completed by Y7 Q4</p> <p>1.13 Radio-network operational by Y4 Q4</p> <p>1.14 Equipment maintained according to schedule</p> <p>1.15 Income-generating activities are supplement the PAMU recurrent budget and all additional recurrent costs are absorbed into PAMU budget by Y7</p>	<p>1.7 Field assessment</p> <p>1.8 Procurement documents</p> <p>1.9 Park code</p> <p>1.10 APR</p> <p>1.11 Independent evaluation</p> <p>1.12 Field assessment</p> <p>1.13 Field assessment</p> <p>1.14 Maintenance records</p> <p>1.15 Administrative records</p>	<p>✍ The institutionalisation of Income-generating activities is approved by government regulators</p>
<p>Output 2: Collaborative management of protected areas is operational based on the adaptive, equitable and sustainable use of biodiversity resources.</p>	<p>Phase 1</p> <p>2.1 Collaborative Management (CM) team mobilised by Y1 Q4</p> <p>2.2 Participatory methods routinely used by PAMU staff by Y2 Q3</p> <p>2.3 Pilot CM agreements successfully negotiated by Y3 Q1</p> <p>2.4 Community guards designated and usufruct / stewardship rights accorded for CM pilot agreements by Y3 Q2</p> <p>2.5 Implementation of CM pilot agreements initiated by Y3 Q4</p> <p>Phase 2</p> <p>2.6 Participatory conservation methods being independently applied by Y4 Q4</p> <p>2.7 Further CM agreements formalised by Y5 Q4</p> <p>2.8 Local conservation-enabling institutions are operating legally-sanctioned communal natural resource regimes by Y5 Q4</p> <p>2.9 Intra-community forums, local management committees and PAMB are meeting regularly and providing inputs into management (on-going)</p>	<p>2.1 APR</p> <p>2.2 Independent evaluation</p> <p>2.3 CM official documents</p> <p>2.4 CM official documents</p> <p>2.5 APR</p> <p>2.6 Independent evaluation</p> <p>2.7 CM official documents</p> <p>2.8 Independent evaluation</p> <p>2.9 APR</p>	<p>✍ PAMU legal prerogatives to enter into CM agreements are enacted</p> <p>✍ Government is willing to test new participatory management methods and share responsibilities and accountability</p> <p>✍ Intra-community consensus on management strategies can be obtained</p> <p>✍ Local institutions are able to mediate stakeholder conflicts and drive conservation measures at the local level</p>
<p>Output 3: Ecotourism is managed to</p>	<p>Phase 1</p> <p>3.1 Basic training programmes for ecotourism operators, investors and local communities completed by Y3 Q2</p>	<p>3.1 APR</p> <p>3.2 CM official</p>	<p>✍ Law and order fundamentals do not foreclose the</p>

<p>demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs.</p>	<p>3.2 Pilot private sector local initiatives based on CM procedures are operational by Y3 Q4</p> <p>3.3 Ecotourism activities are routinely monitored according to procedures set out in the licenses and related EIAs</p> <p>3.4 A finely targeted marketing strategy is designed by Y3 Q2.</p> <p>Phase 2</p> <p>3.5 Best practice guidelines are published by Y5 Q1</p> <p>3.6 Further local ecotourism activities are licensed according to best practice guidelines by Y5 Q5</p> <p>3.7 The Tassili Ahaggar is recognised as a leading ecotourism site in the Central Saharan region.</p>	<p>documents</p> <p>3.3 Independent evaluation</p> <p>3.4 Marketing strategy</p> <p>3.5 Best practice guidelines</p> <p>3.6 APR</p> <p>3.7 Independent evaluation</p>	<p>development of ecotourism activities</p> <ul style="list-style-type: none"> ✍ The CM process is operational ✍ Mandated institutions successfully co-ordinate regulatory activities ✍ Algeria becomes an attractive market for international tourism and the tourism product is competitive
<p>Output 4: Information Education Communication (IEC) efforts are building local and national constituencies for biodiversity conservation.</p>	<p>Phase 1</p> <p>4.1 A comprehensive Information, Education, Communication (IEC) strategy is developed by Y2 Q4</p> <p>4.2 Pilot IEC tools and activities are designed, tested and updated by Y3 Q4</p> <p>Phase 2</p> <p>4.3 Strong local and national advocacy has been built for the protection of biodiversity in the Tassili-Ahaggr</p> <p>4.4 The conservation initiative is comprehensively covered in the local national and international media.</p>	<p>4.1 IEC strategy</p> <p>4.2 APR</p> <p>4.3 Independent evaluation</p> <p>4.4 IEC media archives</p>	<ul style="list-style-type: none"> ✍ Education authorities are receptive to complementary field-based educational activities ✍ NGOs agree to collaborate in advancing proposed IEC activities ✍ Local and national media willing to collaborate as active conservation partners
<p>Output 5: Monitoring and evaluation of biodiversity resources, their utilisation and management has been tested, and a system is operational.</p>	<p>Phase 1</p> <p>5.1 A central Biodiversity Monitoring Unit (BMU) for the Tassili-Ahaggar region has been established by Y3 Q4</p> <p>5.2 A biodiversity monitoring programme including participatory data collection methods has been designed by Y3 Q4</p> <p>5.3 Initial treatment of remote sensed data has been completed and final output adapted for PC platforms by Y2 Q4</p> <p>5.4 Selected BMU staff have been trained to implement the M&E programme and operate the GIS system</p> <p>Phase 2</p> <p>5.5 BMU field units are established at PAMU sub-headquarters by Y5 Q4</p> <p>5.6 The M&E system is operational and generating data sets and reports that contribute to management decisions by Y6</p>	<p>5.1 APR</p> <p>5.2 M&E design documents</p> <p>5.3 GIS system</p> <p>5.4 APR</p> <p>5.5 APR</p> <p>5.6 Independent evaluation</p> <p>5.7 National and international publications</p>	<ul style="list-style-type: none"> ✍ Technical capacities to implement monitoring system can be mobilised to serve on a long-term basis in the region. ✍ Park decentralised infrastructure is realised as scheduled

	<p>Q4</p> <p>5.7 M&E data are synthesised and results shared with all serious stakeholders in Algerian biodiversity conservation</p>		
<p>Output 6: Management plans are developed and biodiversity conservation is firmly inscribed on the local development agenda.</p>	<p>Phase 1</p> <p>6.1 Desktop survey completed by Y1 Q3</p> <p>6.2 Baseline field surveys completed by Y2 Q4</p> <p>6.3 Baseline and thematic maps produced by Y3 Q1</p> <p>6.4 Resource profile for two PAs completed by Y3 Q1</p> <p>6.5 Participatory planning and draft zoning completed by Y3 Q2</p> <p>6.6 Management plan for 2nd phase finalised and adopted by Y3 Q3</p> <p>Phase 2</p> <p>6.7 Regular updating of management plans according to key steps indicated under activities 6.1 – 6.6</p>	<p>6.1 Bibliographic review</p> <p>6.2 APR</p> <p>6.3 GIS system</p> <p>6.4 PAMU documents</p> <p>6.5 Management plans</p> <p>6.6 Management plans</p> <p>6.7 APR</p> <p>6.8 APR</p> <p>6.9 Management plans</p>	<p>✍ Multi-stakeholder willingness to participate in planning</p> <p>✍ Agreement can be reached between national, provincial and local governments and local communities on management requirements/regulations</p>
<p>Output 7: Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities.</p>	<p>Phase 1</p> <p>7.1 Conservation best practice guidelines are presented at local workshops and resource materials developed</p> <p>7.2 Memorandums of understanding with partner agencies are signed by Y2 Q4</p> <p>7.3 Technical assistance has been provided for the design of co-financed sustainable livelihood activities and pilot schemes have been initiated by Y3 Q1</p> <p>Phase 2</p> <p>7.4 Co-financed sustainable livelihood support activities are implemented according to schedule.</p> <p>7.5 Conservation objectives are incorporated into regional development plans</p> <p>7.6 NGOs are providing independent advocacy functions and actively monitoring development operations</p>	<p>7.1 APR</p> <p>7.2 Memoranda of Understanding</p> <p>7.3 APR</p> <p>7.4 Independent evaluation</p> <p>7.5 Regional and sectoral development plans</p> <p>7.6 Independent evaluation</p>	<p>✍ Eco-development provides alternative source of local livelihood</p> <p>✍ Co-financing is realised through the leveraging of funds from the GOA</p> <p>✍ NGOs agree to collaborate in advancing proposed monitoring of development activities</p>

Activities	Phase 1 (years 1-3)	Phase 2 (years 4-8)
Output 1	<ul style="list-style-type: none"> 1.1 Legal redefinition of PAMU mandate, functions and organigram 1.2 Design of legal procedures to allow the PAMU to enter into collaborative management agreements 1.3 Definition of legal procedures for licensing and monitoring of economic activities within PAs 1.4 Extension of police powers to selected PAMU staff 1.5 Formal and on-the-job training of junior personnel to operationalize policing, intelligence gathering, enforcement and reporting functions 1.6 Recruitment of additional management staff and decentralisation / redeployment towards sub-headquarters 1.7 Strengthening of operational capacity and participatory planning skills within PA staff cadre 1.8 Study tours for technical staff to protected areas in the region 1.9 Conservation oriented land use, hunting regulations/plan and environmental auditing protocols reviewed/developed by Y3 Q4 1.10 Produce detailed plans for infrastructure development 1.11 Construct park headquarters 1.12 Procurement of vehicles and basic office and technical equipment 	<ul style="list-style-type: none"> 1.13 Development and endorsement of PA bye-laws and regulations 1.14 Sensitise PA staff to best practices in PA management by sponsoring attendance at regional workshops and overseas attachments 1.15 Implement participatory management, monitoring and law enforcement procedures 1.16 Construct PA sub-headquarters, outposts, and interpretation facilities and realise remaining infrastructure (tracks, signposting etc.) 1.17 Realisation of radio-network linking PAMU headquarters, sub-headquarters, outposts and mobile units 1.18 Institute equipment maintenance operations 1.19 Ensure additional costs of new staff and equipment maintenance are absorbed into PAMU budget 1.20 Institutionalisation of income-generating activities to supplement the PAMU recurrent budget
Output 2	<ul style="list-style-type: none"> 2.1 Establish and mobilise interdisciplinary Collaborative Management (CM) team. 2.2 Train PAMU social outreach teams in participatory learning and action skills 2.3 Negotiate pilot CM agreements based on: (i) identification of territory or set of resources; (ii) evaluation of the range of functions and sustainable uses provided; (iii) stakeholder analysis; (iv) determination of functions, responsibilities, benefits and rights of stakeholders; (v) 	<ul style="list-style-type: none"> 2.13 Support the implementation of formalised CM agreements 2.14 Provide further training for PAMU social outreach staff and selected stakeholders, as a means of forwarding the CM process towards more complex management agreements and larger areas of application following procedures detailed under activity 2.3 2.15 Build-capacity of local conservation-enabling institutions with strong authority on legally-sanctioned communal natural resource regimes

Activities	Phase 1 (years 1-3)	Phase 2 (years 4-8)
	<p>formulation of management priorities and/or site management plan; (vi) establishment of conflict-resolution procedures for implementing collective decisions; (vii) agreement on specific rules for monitoring, evaluating and reviewing the partnership.</p> <p>2.4 Community guards designated and usufruct / stewardship rights accorded for CM pilot agreements by Y3 Q2</p> <p>2.5 Accord usufruct and stewardship rights to local communities over areas and/or resources stipulated in CM pilot agreements</p> <p>2.6 Formalise, publicise and initiate implementation of CM pilot agreements</p> <p>2.7 Support functioning of PAMB</p>	<p>2.8 Convene regular intra-community forums to facilitate inform exchanges and resolve outstanding problems between community-based groups</p> <p>2.9 Convene periodical meetings between local management committees to share experiences and co-ordinate management activities.</p> <p>2.10 Continue to support the functioning of the PAMB and attendance by local management committee representatives</p>
Output 3	<p>3.10 Sensitise tourism operators, potential investors and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism</p> <p>3.11 Conduct training programmes for interpretation and guiding services and the management of visitor interpretation facilities</p> <p>3.12 Provide technical assistance and micro-credits to facilitate local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services</p> <p>3.13 Strengthen the capacity of the PAMU and other regulatory bodies to monitor ecotourism activities according to procedures set out in the licenses and related EIAs</p> <p>3.14 Design in collaboration with the private sector and other stakeholders, a finely targeted marketing strategy.</p>	<p>3.15 Formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services</p> <p>3.16 Strengthen the capacity of the PAMU and other regulatory bodies to license ecotourism activities according to procedures set out in the best practice guidelines</p> <p>3.17 Continue supporting local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services</p> <p>3.18 Support the implementation of a marketing strategy to promote the Tassili Ahaggar as a leading ecotourism site in the Central Saharan region.</p>
Output 4	<p>4.1 Develop with local stakeholders a comprehensive Information, Education, Communication (IEC) strategy based on (i) clear identification of target audience and positioning; (ii) definition of simple message emphasising the links between the natural and cultural heritage of the Tassili-Ahaggar region; (iii) identification of target audience- and media-specific IEC tools and activities; (iv)</p>	<p>4.4 Continue to support the implementation of the IEC strategy through (i) field-based environmental education activities and tools complementing formal education programmes; (ii) interpersonal communication tools such as familiarisation tours, thematic workshops, information portfolios for specialised audiences; (iii) co-ordinated public relations with the local and national press and media; (iv) production of high-quality TV</p>

Activities	Phase 1 (years 1-3)	Phase 2 (years 4-8)
	<p>detailed work-plan.</p> <p>4.2 Design and develop pilot IEC tools and activities</p> <p>4.3 Test and modify pilot IEC tools and activities</p>	<p>documentaries and internet-based products to make available in the public domain information on the protected areas and their activities.</p>
Output 5	<p>5.1 Establishment of a central Biodiversity Monitoring Unit (BMU) for the Tassili-Ahaggar region</p> <p>5.2 Design the monitoring programme in collaboration with other agencies and institutions and building consensus on monitoring priorities</p> <p>5.3 Develop simple participatory methods for data collection and train PAMU staff, so that information may be collected by different teams and results compared with confidence</p> <p>5.4 Outsource initial treatment of remote sensed data and the design of an integrated database and information system with final output to be adapted for a PC platform using a user-friendly GIS package</p> <p>5.5 Training of selected BMU staff to input data and use the integrated GIS system in order to generate data sets and reports that contribute to management decisions.</p>	<p>5.6 Establish field units of the BMU in each of the PAMU sub-headquarters</p> <p>5.7 Support the implementation of the M&E system based on monitoring of: (i) habitat and land use through remote sensing and ground surveys; (ii) a manageable number of keystone / flagship species; (iii) utilisation of biodiversity within human impact zones using participatory techniques; (iv) PA management effectiveness through standardised methods of reporting with measurement of achievements against time-bound targets</p> <p>5.8 Continue to support the GIS/information system in order to co-ordinate the flow of data, synthesise information and disseminate results</p> <p>5.9 Ensure that information is shared with all serious stakeholders in Algerian biodiversity conservation</p>
Output 6	<p>6.1 Desktop survey and review of all available information on the Tassili-Ahaggar region</p> <p>6.2 Field surveys to complete the collection of baseline data on biodiversity resources, their utilisation, associated threats and root causes</p> <p>6.3 Production of baseline and thematic maps for PAs through the services of the GIS system</p> <p>6.4 Synthesis of information on resource profile and technical descriptions of the two protected areas</p> <p>6.5 Participatory planning through extensive interaction and negotiations with key stakeholders as initiated through the CM process (output 2)</p> <p>6.6 Draft zoning, based on stakeholder consultations and information from specialist missions, integrated GIS and M&E systems</p>	<p>6.8 Implementation and testing of management guidelines produced during the first phase.</p> <p>6.9 Revision and updating of management plans according to key steps indicated under activities 6.1 – 6.6</p> <p>6.10 Formulation of a comprehensive management plan covering the five-year period following project termination.</p> <p>6.11 Regional and national review: of management plans by relevant institutions, government departments and key stakeholders</p>

Activities	Phase 1 (years 1-3)	Phase 2 (years 4-8)
	6.7 Formulation and adoption of management guidelines for second phase of project	
Output 7	<p>7.1 Sensitise the private and public sectors to innovate and incorporate emerging best practices from biodiversity conservation initiatives by developing resource materials and hosting local workshops</p> <p>7.2 Negotiate and sign memorandums of understanding with partner agencies, establishing a joint programmatic framework for conservation and community development interventions</p> <p>7.3 Provide incremental technical assistance for the design and implementation of the following co-financed sustainable livelihood pilot schemes:</p> <p>7.4 Improved animal husbandry based on goat-fattening and the raising of local chicken varieties;</p> <p>7.5 Extensive pastoral management based on the establishment of water collecting ponds in improved rangelands;</p> <p>7.6 Planting, production and marketing of economically valuable medicinal plants;</p> <p>7.7 Micro-credit programme promoting energy alternatives and the distribution of solar appliances;</p> <p>7.8 Land rehabilitation programme based on the planting of native tree species;</p> <p>7.9 Traditional handicrafts and camel tours for visitors, supporting the diversification of ecotourism services</p>	<p>7.10 Continue to provide incremental technical assistance for the design and implementation of sustainable livelihood pilot schemes (activity 7.3)</p> <p>7.11 Work with community planners to ensure timely delivery of co-financed activities</p> <p>7.12 Ensure conservation objectives are fully incorporated into regional development plans, including infrastructural and sectoral plans</p> <p>7.13 Support advocacy functions of NGOs to monitor development operations and provide early warning of conflicts and malfeasance</p>

ANNEX 6. ALTERNATIVE SUSTAINABLE LIVELIHOOD PROJECTS

The micro-projects outlined below, foreseen under output 7, were analyzed and extensively discussed at the national workshop held at Illizi during January 2001. The GEF would pay the agreed incremental costs equivalent to removing barriers and mitigating impacts standing against conservation of globally significant biodiversity.

IMPROVED ANIMAL HUSBANDRY

Objective. Promote alternative livelihood options by providing poor sections of the local communities with incentives to improve animal husbandry practices and increase the value of by-products.

a) Goat Fattening Scheme

Description. Pastoral production constitutes one of the main economic activities in the areas of interest for conservation and is practised by over 14% of the active workforce in the south of Algeria. Currently, there are over 75,000 goats raised in the Tassili-Ahaggar region. The local Tuareg pastoral system is highly specialized with men essentially involved in camel breeding, while women are generally responsible for rearing of goats as well as tanning and leatherwork, and the production of butter and cheese. This project aims to enhance the capacity of local women by removing barriers standing against production, processing and marketing of high quality goat products, including yoghurt, cheese, butter, ghee, tanning and leatherwork.

Under the baseline, the Government of Algeria plans to promote the production of goat meat by establishing 20 pilot goat-raising schemes in buffer areas around the Tassili-Ahaggar. In each farm, the government aims to provide selected Tuareg families with about 20 goats to be fed on supplementary pasture, which would be planted in suitable agricultural areas (1 hectare each). Under the alternative, the project aims to complement the baseline by ensuring the proposed goat-fattening scheme does not lead to an increase in the overall goat number in the Tassili-Ahaggar. No goats will be imported to the area and the purchase of goats for the proposed scheme will follow an internal-trading mechanism keeping the overall goat numbers around the 75,000 heads.

The project is coherent with Tuareg traditional pastoral lifestyles and was first proposed by representatives of the local Tuareg communities at the project formulation workshop held in Tamanrasset during July 2000. Among the 50 household representatives consulted, 95% have strongly supported the idea based on the increasing market demand for goat meat and milk. Currently milk production covers only 70% of the local market needs in Tamanrasset and 65% in the Illizi and Djanet areas.

Economic Feasibility (20 goats to be raised for 10 years. Cost is given in US\$)

Costs		Unit price	Total (\$)
Fixed cost	Goats	50 x 20 goats	1,000
	Building	256 \$	256
Running cost			
	Labour	50 \$ salary / month x 12 months x 10 years	6,000
	Transport	3 \$ / month x 12 months x 10 years	360
	Veterinary	50 \$ / year x 10 years	500
TOTAL			8,116

Revenue	Unit cost	Price (\$)
1. \$/Kg of Goat meat/	5\$/kg x 14 goats born every year x 17 kg an average weight of meat/a goat x 9 years	10,710
2. \$/Litre of milk ¹	- 0.3\$/litre x 20 n° of goats x 1 litre average milk production/goat/day x 150 day/year average milking period x 10 years)	9,000
3. \$/litre of yoghurt	- 0.6\$ x 30,000 litre (total amount of milk in 10 years) x 0.7	12,600
4. \$/kg of cheese	- 2\$ x 30,000 litre (total amount of milk in 10 years) x 0.25	15,000
5. \$/kg of butter	- 2.5\$ x 30,000 litre (total amount of milk in 10 years) x 0.15	11,250
6. \$/kg of ghee	- 2.5\$ x 30,000 litre (total amount of milk in 10 years) x 0.15	11,250
7. \$/Skin of goat	2\$ x 14 goats slaughtered /year x 9	252
Total 1+7		10,962
- Profit from selling meat and skin	10962 – 8116	2,846
- Profit from yoghurt	12600-8116	4,484
- Profit from cheese	15000-8116	6,884
- Profit from butter	11250-8116	3,134
- Profit from ghee	11250-8116	3,134

¹ It is assumed that 1 litre of milk produces 0.7 litre of yoghurt, 250gm of cheese, 150gm of butter and 150gm of ghee.

b) Chicken raising programme

Description. Overgrazing is partly caused by settled communities living in small villages within the parks. The workshop has therefore suggested setting up a parallel programme aimed at raising a local chicken variety known as “Ikhen”. The project would complement the baseline by supporting the gradual diversification of local animal husbandry practices through the raising of chickens for egg and meat production, and thereby contributing to the reduction of grazing pressure. An economic assessment of the scheme conducted at the Illizi workshop has proved to be positive (see below).

Economic feasibility (chicken raising programme involving 20 chicken)

Costs	Unit price	Total (\$)
Chickens	22 chickens (2 chickens will be male) x 3\$	66
Fodder: minimal as chicken feed on garden grass, cereal, household food residue, etc.		100/year
Veterinary: minimal as Ikhen chickens are adapted to the Shara conditions and hardly suffer from disease. Sick chickens are usually slaughtered.	10\$/year for 20 chickens	10
Total		186
Revenue		

Eggs	0.15\$ x 150 eggs/year x 20 chickens	450
Meat of new born chicken after 1 year ¹	7 chickens are expected after the first year x 3\$	21
Total		471
Profit in one year		285

¹ New born chickens could also be raised for eggs.

EXTENSIVE PASTORAL MANAGEMENT

Objective. Promotion of extensive pastoral management through the establishment of water collecting ponds in rich under-utilized pastoral areas and by promoting collaborative management and the revival of customary grazing regimes.

Description. In the Government investment plan for the two parks, the MOA aims to dig about 95 wells and boreholes in various pastoral areas within the Tassili Ahaggar region. In an attempt to decrease grazing pressure, the project will support the digging of collecting ponds in rich rangelands instead of the planned wells and boreholes. Collecting ponds are more adapted to the extensive Tuareg pastoral practices. In good years families will gather around collecting ponds to have access to water and more productive rangelands, whereas in bad years with limited rainfall collecting ponds will dry-up and more extensive transhumance will ensue.

The GEF increment for this component will cover surveying costs to identify locations for collecting ponds, mitigating risks associated with digging such ponds and the costs for brokering self-enforcing agreements with local communities to ensure that grazing around newly built collecting ponds is regulated and environmentally friendly.

MEDICINAL PLANTS

Objective. Alleviate pressure caused by the random collection of native endemic and endangered medicinal plants in the Tassili-Ahaggar region, by providing local farmer communities with adequate incentives to plant, produce and market economically valuable medicinal plants.

Description. This project will optimise biodiversity friendly agricultural initiatives to be supported by the Government in an area of about 2.000 ha within the two national parks. PAMU-driven negotiations will be supported in order to involve local stakeholders in: (i) the design of collaborative collection agreements and management frameworks so as to control random plant collection from sensitive areas within the two parks; (ii) support local stakeholders to cultivate about 250 ha (divided among 500 beneficiaries) with locally adapted medicinal plants such as *Artemesia herba alba*, *Origanum* and *Thymus* (see below, list of medicinal plants proposed for cultivation); (iii) facilitate the institutionalisation of the scheme by delegating local NGOs to manage activities in collaboration with local community groups.

The GEF will pay incremental costs equivalent to ensuring sustainable collection agreements brokered with local community representatives over their rights to collect and use medicinal plants, the costs of mitigating negative impacts and monitoring, the removal of barriers including technical, information and market barriers, the introduction of protection schemes, and all necessary consultations, training and awareness activities. Tuareg farmer groups in coordination with local NGOs have showed willingness to take part in such an alternative scheme. The following areas have been selected: Tamanrasset: (Abalessa-300ha, Tarat-40ha, In Amguel-150, Tazerouk-200ha, Ideles-250, Igherghar-250ha, Abdenez-I & Abdenez II-200ha), Illizi: (Illizi-50, Tarat-40ha, Emihro-30ha, Tamidjart-30ha, Afra-

30ha, Ifni-20ha, Wad Samin-30ha, Fadnoun-20ha, Djanet-20ha, Tardjart-20ha, Zerwas-20ha, Ifri Endaberan-40ha, Burj El-Hawas-40ha, Dedar-20ha, and Ihrir-10ha).

Economic Feasibility Comparison between the prices of dry matter collected from the wild vs. the price of produce generated from the same dry matter after cultivation

Cost	Unit price /0.5 ha	Total (\$)
\$ / Kg of dry matter of medicinal plants collected in the wild (average)	5 \$ x 50kg (seeds to be planted)	250
Irrigation and maintenance	50 \$/ 0.5ha	50
Total^a		300
Revenue		
\$ / Kg of dry matter of medicinal plants cultivated and sold in the market	5 \$ x 4 ¹ x 50	1000
Total^p		1000
Profit b – a		700

¹ on average 1 kg of seeds produces approximately 4 kg of medicinal plants /season.

List of medicinal plants proposed for cultivation and Areas assigned for medicinal plant cultivation:

Species	Wholesale price DA / kg	Market price DA / kg	Areas assigned for medicinal plant cultivation ¹
<i>Artemisia judaica Subesp sahariensis</i>	200	300	B
<i>Artemisia campestris subesp glutinosa</i>	200	300	A
<i>Myrtus nivellei</i>	300	400	A
<i>Cymbopogon schoenanthus</i>	200	300	A
<i>Gousses d'Acacia arabica</i>	40	70	B
<i>Pituranthos scoparius subesp falax</i>	200	300	A
<i>Solenostemma argl</i>	200	300	B
<i>Fruits de Balanites aegyptiaca</i>	100	200	B
<i>Fruits de Ziziphus mauritiana</i>	100	200	B
<i>Salvia chudaei</i>	200	300	A
<i>Teucrium polium subesp eu – polium</i>	200	300	A
<i>Matricaria pubescens</i>	200	300	B
<i>Cotula cinerea</i>	200	300	B
<i>Bubonium graveolens</i>	200	300	B
<i>Bascia senegalensis</i>	300	400	B (especially in Guezam and In Zaouatin)

¹ A: High Altitude Sites >1200m: Idelis, Tazrouk, Tahifet, Tehrhananet

B: Low Altitude Sites <1200m: Tit, Abalessa, Enamgal, Amsal, In Gezam, and In Zawatin

ENERGY ALTERNATIVES

Objective. Alleviate anthropogenic pressures on firewood by providing local Tuareg communities with alternative options allowing rational collection of deadwood and by promoting the use of energy efficient alternatives including simple solar energy technologies.

Description. Over-collection of firewood is a serious problem in the Tassili-Ahaggar region with impact zones concentrated around urban areas. The Algerian public company SONELGAZ currently supplies rural areas in the south of the country with bottled gas at subsidized prices (2\$/bottle). In the medium term the Government of Algeria will remove the subsidy of 7\$/bottle, allowing the cost of gas to increase to \$9-10/bottle - in line with current market prices. This cost is prohibitive for the poorest sections of Tamanrasset and Illizi society and will inevitably lead to the intensification of firewood collection. In order to mitigate projected adverse effects, this project will promote energy alternatives by setting up a credit scheme to support the introduction of solar technology applications and energy efficient options including solar ovens and solar heaters. The credit scheme will enable the poorest sections of the local communities to purchase solar equipment necessary for cooking and heating. The beneficiaries will obtain the equipment on joining the scheme while payments will be arranged in small weekly instalments based on amounts equivalent to the cost of weekly firewood purchase or collection. The solar-credit scheme would be set up as follows: (i) seed money to be contributed by the GOA and GEF; (ii) equipment to be sold through soft loans subsidized by the credit scheme estimated at 60% of the original cost of introduced solar technology.

The GEF will assist in covering the agreed incremental costs equivalent to mitigating negative impacts, through the removal of barriers (technological and technical), setting up four demonstration units in each park, training, consultations, awareness raising and overall monitoring of the scheme.

Economic Feasibility. (Gas Bottles vs. Solar Energy to be used for lighting and water heating)

	Actual price of bottled gas	N° of bottle gas / household /year	Total real cost (without Gov. subsidy)	Total real cost for 10 years
Unsubsidised price	9\$	12	108\$	1080\$
Subsidized price	2\$	12	24\$	240\$

Solar Energy

Item	Unit price including installation
Public Lighting	\$1282
Domestic lighting	\$769
Solar pumps	\$650
Solar water heater	\$800
Solar Oven	\$750

LAND REHABILITATION

Objective. Enhance biological diversity and support alternative livelihood of local communities within the two parks by planting native fodder species in highly degraded rangeland areas.

Description. There are several areas within the two parks, which have been subjected to anthropogenic pressures, which have resulted in overgrazing and over-utilization of vegetation for firewood. As part of the baseline, the government will support the rehabilitation of about 2,000 hectares of degraded rangelands within the Tassili - Ahaggar region with native fodder plants (such as *Acacia* spp.), thereby promoting rangeland biological diversity. Under the GEF alternative, the project will ensure that rehabilitation of degraded areas following a biodiversity-friendly approach compatible with the zoning and long-term management of the two parks. The GEF will cover the cost of surveying to ensure selection of proper locations for rehabilitation, outside zones/areas set aside for *in situ* conservation. The sites so far identified include: (i) Tazrouk, Ideles, Tahifet, Amsel, Slenkine, Tahart, Tigel areasnaoune, and Tiaarert in the Ahaggar National Park and (ii) Borj El-Haoues, Tabaket, Ihrir and Dider in the Tassili National Park.

ECOTOURISM SERVICES

a) Traditional handicrafts

Objective. Support local women in the Ahaggar and Tassili NPs by providing financial incentives to develop and market traditional handicraft products.

Description. This project will complement activities supporting ecotourism foreseen under output 3. Key local NGOs will be selected by the project to work with local communities in coordination with the park management teams in order to promote the design, manufacturing and marketing of selected handicraft products. The scheme will include weaving, jewellery and leather products. A total of 30 women from each wilaya will be trained by the project on how to weave traditional clothes, hats, tents, design traditional jewels and leather-made products (bags, belts, decorated items). Memorandums of understanding will be established between the project and beneficiaries and a long-term marketing strategy will be developed and adopted. The GEF will pay the increment equivalent to the cost of on the job training, barrier removal, and technology transfer to ensure successful implementation of the project.

Economic Feasibility. Costs are given only for the first year. Some fixed costs will only be faced during the 1st year of the project, thus profitability will increase in the long term.

Weaving	Unit cost / kg	Price	Total (\$)
Animal wool	1.5\$ (Average weight/100 kg)	150 \$	
Camel hair	10\$ x 100	1000 \$	
Labour	50\$/month x 12	600 \$ / year	
Equipment	200 \$	200 \$	
Training	100\$/year /woman	100 \$	
Total			2,050
Revenue			
Animal wool	7\$ x 100	700 \$	
Camel hair	70\$ x 100	7000\$	
Total revenue			7,700
Profit			5,650

Jewels	Price / kg	Subtotal
Raw material		
- Silver	200 \$ x 10 kg each	2000 \$
- Copper	50 \$ x 10 kg each	500 \$
Labour	110 \$ / month x 12	1320 \$
Equipment	1000 \$	1000 \$
Training		100 \$
Total		4920 \$
Revenue		
- Silver	1000 \$ x 10 kg	10 000 \$
- Copper	250 \$ x 10 kg	2500 \$
Total		12500 \$
Profit		7580 \$

Leather	Unit price	Subtotal
\$ / Goat skin	2 \$ / skin x 100	200 \$
\$ / Camel skin	5 \$ / skin x 50	250 \$
Labour	100 \$ / month x 12	1200 \$
Equipment	500 \$ / year	500 \$
Total		2150 \$
Revenue		
Goat	10 \$ x 100 skins	1000 \$
Camel	30 \$ x 50 skins	1500 \$
Total		2500
Profit		350 \$

b) Camel-based ecotourism services

Objective. Promote sustainable and biodiversity friendly eco-tourism using camels as a means of transport for tourists visiting the two parks.

Description. Under the baseline, tourism is privately organized and is carried out using four-wheel drive vehicles, which are negatively impacting fragile habitats. About 150 tourist agents are currently active in the two Wilayas. Under the alternative, the project aims to introduce camels as a means of transport for tourists, in order to minimize the impact of vehicles on highly fragile environments. Under this scheme, the project will broker agreements with local tourist contractors and Tuareg families, allowing camel-based tourist activities/visits in certain areas according to procedures set out in the zoning and management plans.

Families with camels participating in the eco-tourist scheme will also benefit from a camel dairy production scheme to enhance the value of camel milk products. Camel milk is currently of low market value and so an income generating activity targeting local women will assist in processing camel milk into higher value products such as cheese, yoghurt and butter.

By supporting the brokering of self-enforcing agreements and collaborative monitoring, the project would ensure that such an activity would not lead to an increase in the overall number of camels and thus reduce its potential impact on the environment.

Economic feasibility.

Items	Unit price	Total (\$)
Building	300 \$	300
Labour	75 \$ / month x 12 x 10 years	9,000
Veterinary	50 \$ / year x 10 years	500
Transport	50 \$ / year x 10 years	500
Total w. out fodder		10,300
Revenue from milk- derivatives, meat, and ecotourism		
\$/kg camel meat	3\$ x 70 kg x 3 x 9 years	5,670
\$/kg of milk derivatives	2.5\$/kg x 16200 litre of camel milk produced by 5 camels in 9 years x 0.2 an average amount of derivatives produced from 1 litre	8,100
Total		13,770
Profit		
Milk derivatives & meat	13770-10300	3,470
\$/Eco tourism/ tour	10\$ x 1 tours/day x 5 camels x 180 days (6 months active tourists) x 10 years	18,000
Total		21,470

Annex 7. National Technical Capacity to Execute Project Activities

It is anticipated that the key institutions responsible for the overall execution of the project will be the Protected Area Management Units (PAMUs) of the Tassili National Park (TNP) and the Ahaggar National Park (ANP). The two PAMUs collectively employ over 600 staff, including a full complement of technical and management personnel - permanently recruited by the Ministry of Communication and Culture (see section on project context). Additional technical staff will be permanently recruited by the PAMUs during the course of the project, and several national and international experts will be employed on a full-time or part-time basis.

As outlined in the table below, the PAMUs will be assisted in the implementation of selected components / activities of the project through the services of: (i) local NGOs with a well proven track record in the conservation of biodiversity and cultural heritage resources; (ii) specialised private sector companies; (iii) national research institutes already active in the Tassili-Ahaggar region; (iv) relevant wilaya technical services.

Project Outputs	Cooperating Institutions and Technical Inputs
Output 1. Institutional capacity for field conservation enabled through legal, human resources and infrastructure development.	The following inputs will complement PAMU – executed activities: (i) a national expert to assist with legal/institutional matters; (ii): a full-time training team composed of four experienced national trainers for in-service training and recycling of PAMU staff; (iii) a private sector construction company sub-contracted according to national/UNDP tender procedures for the design and development of park infrastructure.
Output 2. Collaborative management of protected areas is operational based on the adaptive, equitable and sustainable use of biodiversity resources.	Key activities will be implemented through the services of an interdisciplinary collaborative management (CM) team, composed of four technically competent and dedicated professionals including biodiversity and participatory appraisal specialists and experienced facilitators.
Output 3. Ecotourism is managed to demonstrate innovative, environmentally compatible, economic activities meeting sustainable livelihood needs.	Selected activities under this output will be sub-contracted to a national private sector company with previous experience in the Tassili-Ahaggar region, specialising in the development and marketing of ecotourism services in Algeria.
Output 4. Information Education Communication (IEC) efforts are building local and national constituencies for biodiversity conservation.	Under the umbrella of suitable local NGOs such as the Amis du Tassili, key activities will be outsourced to a core of professional journalists active in the local and national press and media and selected educationalists serving in primary and secondary schools of the Tassili-Ahaggar region.
Output 5. Monitoring and evaluation of biodiversity resources, their utilisation and management has been tested,	A Biodiversity Monitoring Unit will be established at PAMU HQs and field units in key outposts and field stations. As a basis for the establishment of a long-term partnership with the PAMU, selected components of the programme will be outsourced to the following

Project Outputs	Cooperating Institutions and Technical Inputs
and a system is operational.	institutions already engaged in monitoring and research activities in the Tassili-Ahaggar region: (i) the National Forestry Research Institute (INRF); (ii) the National Meteorological Office; (iii) the National Research Centre for Arid Regions (CRSTRA).
Output 6. Management plans are developed and biodiversity conservation is firmly inscribed on the local development agenda.	This output will rely on a PAMU-driven cooperative effort involving in-house technical staff, key project advisors and partner organisations. A small external team of planners will provide specialist inputs to ensure incorporation of management guidelines into formal management plans integrating biodiversity conservation with wider development planning at wilaya and national levels.
Output 7. Eco-development and sustainable livelihoods are supported through financial and human resources targeted by government, development agencies and communities.	Key activities under this output will be delivered through the following local organisations and decentralised government bodies located at wilaya level: (i) the pastoralists associations and the Agriculture department for the improved animal husbandry schemes; (ii) the pastoralists associations and the Forestry department for the extensive pastoral management and land rehabilitation schemes; (iii) the associations of agriculturists and the INRF for the medicinal plant scheme; (iv) the department of Environment and the public company SONELGAZ for the solar and energy alternatives scheme; (v) the handicraft associations and the department of tourism for the diversification of ecotourism services.

ANNEX 8. EQUIPMENT REGISTER (TENTATIVE)

Item	N. Units	Unit cost (\$)	Total cost (\$)	Phase 1	Phase 2
Vehicles and transport					
4WD Vehicle (HQs ANP)	2	25,000	50,000	50,000	0
4WD Vehicle (HQs TNP)	2	25,000	50,000	50,000	0
4WD Vehicle (CM team)	1	25,000	25,000	25,000	0
4WD Vehicle (Training team)	1	25,000	25,000	25,000	0
4WD Vehicle (Taessa)	1	25,000	25,000	25,000	0
4WD Vehicle (Tefedest)	2	25,000	50,000	25,000	25,000
4WD Vehicle (Mouyidir)	2	25,000	50,000	25,000	25,000
4WD Vehicle (Meddak)	2	25,000	50,000	25,000	25,000
4WD Vehicle (Tihoudayene)	2	25,000	50,000	25,000	25,000
Off-road motorbike (250/350 cc)	25	3,000	75,000	36,000	39,000
Camel	20	500	10,000	2,500	7,500
Total			460,000	313,500	146,500
Furniture and appliances					
Additional furniture (HQs) (10 offices)	2	20,000	40,000	40,000	0
Furniture for sub-headquarters	3	4,500	13,500	4,500	9,000
Furniture for main outpost	5	4,000	20,000	8,000	12,000
Furniture for outpost	15	3,000	45,000	3,000	42,000
Generator (25 KWA)	6	10,000	60,000	30,000	30,000
Solar generator unit	23	5,000	115,000	25,000	90,000
Air conditioning unit	18	1,000	18,000	10,000	8,000
Total			311,500	120,500	191,000
Office equipment					
Desktop computer + peripherals	6	2,000	12,000	12,000	0
Notebook computer	6	3,000	18,000	9,000	9,000
Software (MS Office professional)	1	2,000	2,000	2,000	0
Photocopier	2	2,000	4,000	4,000	0
Data / fax modem	4	300	1,200	1,200	0
Fax machine	2	800	1,600	1,600	0
Telephone	4	150	600	600	0
Total			39,400	30,400	9,000
Communication					
HF radio base station	25	3,000	75,000	18,000	57,000
HF mobile radios	8	2,500	20,000	15,000	5,000
Satellite phone	2	3,000	6,000	6,000	0
Hand-held walkie talkie	24	400	9,600	9,600	0
Total			110,600	48,600	62,000
Field and scientific equipment					
GPS Garmin 3Plus	8	750	6,000	4,500	1,500
Binocular (8x40)	80	250	20,000	10,000	10,000
Compass	80	130	10,400	5,200	5,200
Camping equipment	50	200	10,000	5,000	5,000
Total			46,400	24,700	21,700
Awareness and IEC					
35mm camera + lenses	2	2,000	4,000	4,000	0

Item	N. Units	Unit cost (\$)	Total cost (\$)	Phase 1	Phase 2
Electric Roneo machine	2	4,000	8,000	8,000	0
Digital Video camera	2	2,000	4,000	4,000	0
TV (large screen)	4	1,000	4,000	4,000	0
VHS players	4	500	2,000	2,000	0
LCD projector	1	2,800	2,800	2,800	0
Public address system	2	600	1,200	1,200	0
Overhead projector	2	400	800	800	0
Portable generator (5KW)	2	800	1,600	1,600	0
Slide projector	2	400	800	800	0
Total			29,200	29,200	0
Biodiversity monitoring & GIS					
Desktop computer + peripherals	2	4,000	8,000	8,000	0
Digitiser	1	2,500	2,500	2,500	0
Plotter	1	4,000	4,000	4,000	0
Scanner A0	1	3,000	3,000	3,000	0
Software (Mapinfo)	1	2,000	2,000	2,000	0
Total			19,500	19,500	0
GRAND TOTAL			1,016,600	586,400	430,200

ANNEX 9. TERMS OF REFERENCE FOR PROJECT STAFF AND CONSULTANTS

NATIONAL STAFF AND CONSULTANTS

PROJECT COORDINATOR

Duration of Assignment: Full Time for 8 years.

Background: The Project Coordinator will be responsible for the overall co-ordination of project activities. The incumbent will liaise with the Ministry of Communication and Culture of the GOA, UNDP, and other project partners to generate project outputs and will report to the Ministry of Communication and Culture and to the UNDP CO.

Duties and Responsibilities

- ✍ Provide logistical support in procuring, importing and transporting project equipment.
- ✍ Prepare and revise project work plans, travel plans, and financial plans as required by UNDP CO.
- ✍ Set up a financial accounting, transactions and reporting system for the project in accordance with UNDP financial rules and regulations.
- ✍ Oversee and ensure timely submission of quarterly financial reports, quarterly progress reports and the Annual Project Report (APR) to UNDP-Algeria and the Ministry of Communication and Culture.
- ✍ Serve as a communications officer for the project, disseminating technical reports and information.
- ✍ Organize tri-partite meetings at the request of the Chair and serve as rapporteur for the meetings.
- ✍ Assist UNDP-Algeria and the Ministry of Communication and Culture to monitor project activities and report on progress in implementation to UNDP-GEF during Project Implementation Reviews;
- ✍ Provide backstopping, as necessary, to the Ministry of Communication and Culture to organise the scheduled in-country training workshops, study tours and stakeholder consultations.
- ✍ Convene and provide secretarial services to the Project Steering Committee.
- ✍ Provide operational support to UNDP Missions, including Independent Evaluators.

Selection Criteria

- ✍ Post-graduate degree in natural resource management or economics with at least 15 years professional experience.
- ✍ Excellent track record and experience in project management and coordination of conservation/natural resource management projects.
- ✍ Excellent communication skills both in Arabic and French.

PROJECT MANAGERS/DIRECTORS

Duration of Assignment: Full Time for 8 years.

Background: The two Project Managers (ANP and TNP) shall be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The Managers shall report to the PSC and shall be responsible

for meeting government obligations under the Project. The incumbents shall liaise with government and UNDP, while maintaining tight links with NGOs and other project partners. The Managers shall be permanent staff of the Ministry of Communication and Culture, respectively serving as directors of the Ahaggar and Tassili National Parks.

Duties and Responsibilities

- ✍ Supervise and coordinate project activities according to the project document and the procedures in the Project Cycle Operations Manual.
- ✍ Select, recruit and supervise permanent core staff of the NRCTC.
- ✍ In collaboration with the UNDP Country Office, ensure that all MOUs are prepared and negotiated with project partners.
- ✍ Mobilise all project inputs not covered by implementing agency letters of agreement in accordance with the relevant procedures in the Project Cycle Operations manual and authorise expenditure for these inputs.
- ✍ Supervise and coordinate the work of all project staff, consultants and sub-contractors.
- ✍ Arrange for the outsourcing of selected components of the project and ensure full compliance with agreed conditions during implementation.
- ✍ Supervise the preparation and revision of the project work plans, budgets and financial plans as required by Ministry of Communication and Culture and UNDP.
- ✍ Ensure the timely preparation and submission of financial reports, the Annual Project Report (APR) and any other required project reports as may be required by UNDP, the Ministry of Communication and Culture and other oversight agencies.
- ✍ Liaise with UNDP, Ministry of Communication and Culture, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities.
- ✍ Report progress of project to the PSC and ensure the fulfilment of PSC directives.
- ✍ Oversee the exchange and sharing of experiences and lessons learned with relevant community
- ✍ Based integrated conservation and development projects nationally and internationally.
- ✍ Identify, analyze and communicate lessons learned that may be useful in design and implementation of similar projects. The duty of identifying and analyzing lessons learned is an on-going one, and the duty to communicate those lessons is on an as-needed basis, but not less frequently once every six months according to a reporting format, and system for categorizing of lessons to be provided by UNDP/GEF.

Selection Criteria

- ✍ Post-graduate degree in natural resources management with at least 10 years professional experience.
- ✍ Ability to effectively coordinate a large, multi-disciplinary project involving several different stakeholders.
- ✍ A strong and demonstrated past commitment to conservation objectives.
- ✍ Excellent communication skills both in Arabic and French.

IN-SERVICE TRAINERS

Duration of Assignment: Full Time for 8 years.

Background: The four trainers shall form a team of professionals working in close coordination with the PAMUs and the Collaborative Management (CM) team established by the project. The Training team will be responsible for the assessment of training requirements, the development and implementation of customised training and orientation programmes, and monitoring of training impacts and results. These shall be undertaken for each particular target group, such as the PAMU management personnel and over 600 permanent field staff, local management committees, NGOs, PAMB and other project partners.

Duties and Responsibilities

- ✍ Perform a training needs assessment of the PAMU, local management committees, NGOs, PAMB and other project partners to identify capacity strengths, weaknesses and development needs and opportunities.
- ✍ Formulate training interventions that would address identified capacity needs and define the content of training curricula including, inter alia, management methods, monitoring, law enforcement, conflict resolution, visitor management, reporting, book keeping and administration.
- ✍ Develop suitable training modules for target participants including the production of customized resource materials and tools.
- ✍ Organize and conduct regular training programs ensuring the regular assessment of training sessions and the subsequent improvement/revision of training programmes.
- ✍ Monitor and evaluate the success and impact of conservation training programmes through and adapt/revise training strategies and programs as required.
- ✍ Identify appropriate Resource Persons and provide formal and on-the-job training to future PAMU trainers tasked with delivering the training programs on completion of the project.

Selection Criteria

- ✍ Degree or extensive practical experience in natural resources management or related fields.
- ✍ At least five years of previous experience in instruction, adult education or extension work.
- ✍ Sensitivity to gender issues.
- ✍ Effective facilitation and communication skills (Targui, Arabic, French), and excellent abilities in working with local communities.
- ✍ Willingness to travel extensively within the parks and ability to work in the field for extended periods of time, often under difficult conditions.

COLLABORATIVE MANAGEMENT FACILITATORS

Duration of Assignment: Full Time for 8 years.

Background: Four facilitators will lead the Collaborative Management (CM) team of the project. The CM team will assist PAMU staff with assessing the feasibility of possible partnerships, as well as with the preparation, negotiation development and implementation of pilot CM agreements, according to the procedures outlined in Output 2 of the project.

Duties and Responsibilities

- ✍ Identification of management priorities within selected areas based on the participatory assessment of the status of harvested species and sustainable harvest parameters, and formulation of local management plans clearly specifying harvest quotas, methods and delineated harvest areas.
- ✍ Assist in the establishment of new licensing procedures taking into account the allowable harvest quotas, methods and areas, and assist local communities in the fulfilment of requirements for the issuance of tenurial and usufruct rights.
- ✍ Negotiation and formalisation of pilot collaborative management agreements, including the establishment of conflict-resolution procedures for implementing collective decisions, and agreement on specific rules for monitoring, evaluating and reviewing the partnership[?].
- ✍ Provide key stakeholders with extensive training and general orientation in conservation enabling management methods.
- ✍ Establishment and organisation of local management committees with robust conflict mediation systems, low transaction costs and rooted in existing social networks, such as those administered by community elders.
- ✍ Summoning of regular intra-community forums, bringing together community members and representatives from community-based groups in order to facilitate informal exchanges and resolve outstanding problems.
- ✍ Convening of periodic general meetings of representatives from different management committees in order to share management experiences and ensure that management operations are co-ordinated.
- ✍ Engage local NGOs with a well-proven track record in biodiversity conservation to support the implementation of CM agreements and assist in building NGO advocacy functions as a basis for a long-term twinning relationship with the PAMUs.
- ✍ Identify and support selected representatives from local management committees and NGOs as members of the Protected Area Management Board (PAMB), which includes all key stakeholders in the management of the protected areas.
- ✍ Play an active role in local awareness campaigns based on a wide range of Information, Education, Communication (IEC) tools and activities aimed at imparting conservation values to local communities and sensitising them to conservation-friendly land use strategies.
- ✍ Ensure that participatory monitoring techniques are employed to track social processes that have a bearing on conservation outcomes, through the systematic involvement of monitors from local communities in M&E activities.

Selection Criteria

- ✍ Degree in sociology, economics or related subject or known practitioner of participatory approaches with extensive practical experience in natural resources management or related fields.
- ✍ Proven track record in the formulation of management guidelines for the sustainable use of biodiversity resources and the involvement of communities in the management of natural resources for livelihood purposes.

[?] Key steps in developing collaborative management agreements include (see output 2): (i) identification of territory or set of resources; (ii) evaluation of the range of functions and sustainable uses provided; (iii) stakeholder analysis; (iv) determination of functions, responsibilities, benefits and rights of stakeholders; (v) formulation of management priorities and/or site management plan; (vi) establishment of conflict-resolution procedures for implementing collective decisions; (vii) agreement on specific rules for monitoring, evaluating and reviewing the partnership.

- ✍ Effective facilitation and communication skills (Targui, Arabic, French), and excellent abilities in working with local communities.
- ✍ Sensitivity to gender issues.
- ✍ Willingness to travel extensively within the parks and ability to work in the field for extended periods of time, often under difficult conditions.

LEGAL / INSTITUTIONAL ADVISOR

Duration of Assignment: 13m/m over 8 years.

Background: The Legal / Institutional Advisor shall be responsible for the amendment, development of legislation strengthening the institutional capacity of the Tassili n'Ajjer and Ahaggar Protected Area Management Units (PAMUs). The aim is that biodiversity conservation becomes the chief mandate of the PAMUs, alongside the preservation of cultural heritage. Effective legal instruments should be put in place for the implementation of this wider mandate based on well-defined planning, monitoring, and law enforcement prerogatives, based on the integration of conservation and development planning, and the sustainable and equitable use of biodiversity resources.

Duties and Responsibilities

- ✍ Progressively redefine the mandate, functions and organisational chart of the PAMUs, reflecting the new biodiversity-related staff profiles and responsibilities.
- ✍ Strengthen the law enforcement capacity of the PAMUs by providing technical backstopping in the follow-up to court proceedings and in the areas of litigation and arbitration procedures as well as developing required legal protocols for policing, intelligence gathering, enforcement, and reporting functions.
- ✍ Support the decentralisation of legal functions to the PAMUs by assisting in the development and ratification of site-specific bylaws and regulations to be integrated in the management plans of the two protected areas.
- ✍ Draft required legal texts allowing the PAMU to enter into effective collaborative management agreements with other parties such as stakeholder communities and the private sector.
- ✍ Assist the project staff in the establishment of a unified and integrated PAMB, and in providing orientation on its mandate, role and responsibilities, including the development of a comprehensive PAMB Manual of Procedures.
- ✍ Assist the PAMB and project staff in the formulation of appropriate policies and guidelines incorporating new permitting arrangements for the sustainable use of biodiversity resources and community-based conservation in the management plans for the two parks.
- ✍ Provide overall legal advice to the PAMB and project staff in other legal related concerns and in the resolution of issues requiring legal action.
- ✍ Conduct para-legal training for park rangers, members of the PAMB, and other deputized members of the local communities.
- ✍ Contribute to the institutionalisation of appropriate income-generating mechanisms through the drafting of required legal texts regulating the use of visitor and concession fees in order to supplement the PAMU budget and assist in covering the long-term recurrent costs of park management.
- ✍ Review of existing licences authorising economic activities in the two parks, updating procedures for their extension or amendment, according to current Algerian legislation and site-specific management guidelines developed by the PAMUs.

- ✍ Assess existing monitoring protocols and make detailed recommendations for the formal incorporation of a cost-effective and comprehensive system for monitoring economic activities as an integral part of the licensing procedures.
- ✍ Assist the PAMU and the Ministry of Communication and Culture to draft minimum standards for development activities in the protected areas and specifying the requirements for Environmental Impact Assessments and licensing.
- ✍ Drafting of any new licences for proposed economic activities in the PAs, specifying rights and obligations of licensees and general conditions of validity following management guidelines established for the sites.
- ✍ Draft legislation or amendments to existing legislation concerning access, permitting and enforcement and benefit sharing for bio-resource prospecting, scientific research, and trade in phyto-medicines.
- ✍ Capitalise on the site-specific activities carried out during the course of the project, to draft and publish a general manual for the licensing and monitoring of economic activities in the two protected areas.

Selection Criteria

- ✍ Degree in law with at least ten years experience working on environmental and biodiversity management issues.
- ✍ Familiarity with legislative making processes and environmental litigation.
- ✍ Excellent communication and writing skills both in Arabic and French.

ACCOUNTANT / CASHIER

Duration of Assignment: Full Time for 8 years.

Background: The Accountant/Cashier shall be responsible for the proper documentation, recording, and reporting of the various transactions of the project. The incumbents shall report directly to the Project Managers and prepare regular reports of disbursements, receipts, general journal, and provide inputs in the preparation of financial reports to UNDP-GEF.

Duties and Responsibilities

- ✍ Install the project's financial systems and procedures, in accordance with UNDP's guidelines for project direct execution.
- ✍ Establish a project account and ensure appropriateness and proper record keeping of transactions.
- ✍ Orient staff on the use of the project's financial systems and procedures.
- ✍ Maintain a systematic file of all vouchers and supporting documentation for project disbursements.
- ✍ Maintain a systematic book of accounts, which records all financial transactions of the project.
- ✍ Prepare updated ledger of all cash outflow and liquidations.
- ✍ Certify as to the correctness of journals, vouchers, bills, statement of accounts, trial balance, budget estimates and other financial statement and records.
- ✍ Sign certification of the availability of funds and or allotment of expenses, vouchers and requisition for supplies, materials, etc..
- ✍ Consolidate and prepare annual and quarterly budgets and work plans, including the necessary budget revisions.

- ✍ Supervise the preparation of payroll and general voucher of salaries, and other documentary requirements for disbursements.
- ✍ Prepare updated reports on disbursements made by the project, which reflect both actual expenditures and bank statements and advise the Project Managers on the overall financial status of the project.

Selection Criteria

- ✍ Degree in Accounting, preferably Certified Accountant
- ✍ At least 10 years of professional experience.
- ✍ A minimum of 3 years of experience in managing finances for large-scale projects.
- ✍ Good interpersonal and communication skills.
- ✍ Strong computer skills (MS Office), especially for spreadsheets and work plans.

ADMINISTRATIVE OFFICER

Duration of Assignment: Full Time for 8 years.

Background: The Administrative Officer shall be responsible for providing administrative backstopping to the project, supervising all administrative staff and ensuring the smooth functioning of administrative systems under the project.

Duties and Responsibilities

- ✍ Establish administrative systems and procedures consistent with UNDP's direct execution modalities, in the form of a Manual, for the guidance of project staff, consultants and subcontractors.
- ✍ Maintain an active file of all personnel, consultants and subcontractors under the project.
- ✍ Prepare and consolidate the travel plan, and procurement plan for the project.
- ✍ Supervise the procurement requirements of the project, in accordance with UNDP guidelines.
- ✍ Maintain an updated inventory of all supplies and equipment and prepare guidelines for the proper use and maintenance of office equipment and properties.
- ✍ Make arrangements for the logistical requirements in training, workshops, and other project activities.
- ✍ Assist the project staff, consultants and other project partners in their overall administrative requirements.

Selection Criteria

- ✍ Degree in Management, Business Administration or related fields.
- ✍ At least five years experience as Administrative Officer in any developmental project, experience with UNDP projects would be desirable.
- ✍ Excellent communication skills (Arabic, French)

EXECUTIVE SECRETARY

Duration of Assignment: Full Time for 8 years.

Background: The Secretary shall provide administrative backstopping to senior project staff and perform both clerical and secretarial functions to support the operations of the project.

Duties and responsibilities

- ✍ Provide secretarial support to the management staff of the project including independent handling of routine letters and queries, in writing or verbally, as appropriate, scheduling of appointments, answering phone calls, and miscellaneous related activities.
- ✍ Assist in processing administrative and financial management forms, particularly processing of travel request forms, leave applications, etc.
- ✍ Coordinate travel arrangements, both domestic and international for all staff members.
- ✍ Coordinate logistical arrangements for all meetings, in house as well as others.
- ✍ Desktop formatting, typing and/or editing of all correspondence, reports and proposals for senior project staff.
- ✍ Update and maintain a database for mailing of correspondence and other documents.
- ✍ Ensure proper filing of all office correspondence and important project documents.

Selection Criteria

- ✍ Graduate with a minimum of 3 years of work experience.
- ✍ Excellent computer skills, especially typing and word processing
- ✍ Ability to edit, format and organise reports.
- ✍ Fluency in Arabic and French.

INTERNATIONAL STAFF AND CONSULTANTS

CHIEF TECHNICAL ADVISOR

Duration of Assignment: Full Time for 5 years; 24m/m over the remaining 3 years.

Background: The Chief Technical Adviser (CTA) will be the leader of the technical assistance team, responsible for providing overall technical backstopping to the Project. The CTA shall coordinate the provision of the required technical inputs, reviewing and preparing Terms of Reference, and reviewing the outputs of Consultants and other sub-contractors. The incumbent shall work in close collaboration with the national Project Coordinator and Project Managers in jointly deciding and consigning the technical and financial documents related to the project.

Duties and Responsibilities

The CTA shall be jointly responsible with his national counterparts for the following tasks:

- ✍ The preparation of the project's overall and annual work plans and budgets for the approval of the Project Steering Committee (PSC) and UNDP-GEF.
- ✍ The implementation of the agreed work plans.
- ✍ The integration within the project of appropriate concepts of area-based planning and community-based planning, consultation and participation, and of effective measures to ensure the long-term sustainability of project activities and achievements.

- ✍ Technical assistance for project activities, including planning, monitoring and Protected Area operations and assuming quality control in interventions.
- ✍ Hands-on support to the Project Managers, project staff, and other government counterparts in the areas of protected area management, and monitoring and evaluation of project activities.
- ✍ The finalisation of Terms of Reference for Consultants and Subcontractors, and assistance in the selection and recruitment process.
- ✍ Coordination of the work of all Consultants and Subcontractors, ensuring the timely delivery of expected outputs, and effective synergy among the various subcontracted activities.
- ✍ Take the lead in the preparation of guideline specifications for the design of basic infrastructure for the two protected areas, assist in selecting and engaging suitable contractors according to UNDP-GEF tendering procedures and in monitoring the construction of park facilities
- ✍ The preparation of quarterly progress reports, annual project reports, and a mid-term report at the end of the first phase for submission to UNDP-GEF and the GOA.
- ✍ Assistance in mobilizing staff and consultants in the conduct of a mid-term project evaluation and in undertaking revisions in the implementation program and strategy based on evaluation results.
- ✍ Maintaining close liaison with project partners, donor organizations, NGOs and other groups to ensure effective coordination of project activities.
- ✍ Ensuring the overall monitoring and evaluation of project progress and achievements, and the identification and resolution of implementation problems and bottlenecks.
- ✍ The overall co-ordination and management of the technical assistance team contributing as necessary to the work of individual experts in the team and ensuring the preparation of technical assistance reports as required.
- ✍ Documenting lessons from project implementation and making recommendations for more effective implementation and coordination of project activities.

Selection Criteria

- ✍ Post-graduate degree in natural resource management or related subject with at least 15 years of professional experience.
- ✍ Proven ability to build and lead multi-disciplinary teams of technical staff.
- ✍ Long-term experience in implementing biodiversity conservation projects.
- ✍ Fluency in the French language; working knowledge of Arabic and English desirable.
- ✍ Ability to report on project activities according to the highest international standards.
- ✍ Willingness to reside in the Tassili-Ahaggar region throughout the period of the assignment, to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

COLLABORATIVE MANAGEMENT SPECIALIST

Duration of Assignment: 26 m/m over 8 years.

Background: The CM specialist shall be responsible for formulating the framework for the collaborative management activities of the project ensuring community participation in the various aspects of planning, implementation and monitoring. The incumbent will provide technical backstopping for the project's CM team and coordinate social assessment activities through the identification and monitoring of appropriate social indicators.

Duties and Responsibilities

- ✍ Take the lead in initiating a processual approach strongly based on 'learning by doing' and forwarding the consultative process underpinning the public participation strategy of the project.
- ✍ Review, analyse and identify data gaps in the socio-economic information on the Tassili-Ahaggar region gathered during the PDF-B.
- ✍ Coordinate further socio-economic assessments identifying key social indicators as a basis for subsequent social monitoring work.
- ✍ Formulate a framework for the negotiation and implementation of CM agreements following procedures outlined in output 2 of the project document.
- ✍ Review and finalize detailed terms of reference and work plans for the CM team and assist in selecting and engaging suitable staff as CM team members.
- ✍ In coordination with the Training Team, provide comprehensive on-the-job training in participatory learning and action skills for CM team members and PAMU social outreach staff.
- ✍ Provide hands-on backstopping and closely monitor the activities of the CM team, ensuring that they are in full compliance with the project's approach and objectives.
- ✍ Periodically evaluate the performance of the CM team ensuring feedback from PAMU staff and operating any necessary modifications in approach and methods.
- ✍ Synthesise data, disseminate results and play an active role in the planning and social outreach activities of the PAMUs.
- ✍ Maintain and update a database on the NGOs/CBOs active in the area and contribute to the design and implementation of the social monitoring component of the M&E system developed under output 5 of the project.
- ✍ Assist in developing and operationalizing policies and management plans for the two National Parks, which effectively incorporate the adaptive management framework underpinning the CM process, and derived agreements.
- ✍ Document lessons from project implementation as a means of advancing the CM process towards more complex management agreements and larger areas of application.
- ✍ Assist in the conducting a mid-term assessment and terminal evaluation of the project by providing inputs based on the socio-economic impact of project activities.

Selection Criteria

- ✍ Post-graduate degree in sociology or related subject with at least 15 years of professional experience.
- ✍ Long-term experience in negotiating and implementing CM agreements as part of biodiversity conservation projects.
- ✍ Fluency in the French language; working knowledge of Arabic desirable.
- ✍ Ability to report on project activities according to the highest international standards.
- ✍ Willingness to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

ECOTOURISM SPECIALIST

Duration of Assignment: 14 m/m over 8 years.

Background: The Ecotourism Specialist shall take the lead in formulating an overall ecotourism development strategy for the Tassili-Ahaggar region and propose a preliminary investment plan for selected demonstration ecotourism facilities and services. The incumbent shall provide technical backstopping and closely monitor sub-contracted ecotourism activities, assist in developing and operationalizing policies and management plans for the two National Parks and play an active role in the training activities of the project.

Duties and Responsibilities

- ✍ Assess future demand for the Tassili-Ahaggar region as a tourist destination making quantitative projections based on different scenarios of relative growth in domestic and international tourism, identifying exogenous variables likely to have significant effects on visitation patterns, such as improved educational level, increased awareness of travel possibilities and improving law and order fundamentals in Algeria.
- ✍ Formulate an overall ecotourism development strategy for the Tassili-Ahaggar region detailing proposals for the development of infrastructure, ecotourism facilities and services, interpretation system, community involvement and self-financing mechanisms, entrance fee system, merchandising and other and income-generating activities, promotion and marketing.
- ✍ Propose a visitor zoning system for the six core areas so far identified by the project; for each area define the potential tourism experience (e.g. in terms of "activity holidays": camel-tours, trekking, etc.), assess visitor carrying capacity and select suitable sites for the demonstration of management techniques to be replicated and applied on a wider scale.
- ✍ In selected demonstration sites, develop detailed plans for the development of ecotourism facilities and services including, site plans, road and path design, transport and circulation rules, schematic floor plans for buildings, specifying design techniques and materials, sanitation and waste treatment systems, etc.
- ✍ For each proposed facility identify potential conflicts, and draft management guidelines to limit negative tourism impacts particularly overcrowding, overuse, littering, stress on landscapes, soils, water, cultural heritage resources, etc.
- ✍ Based on the ecotourism development strategy, draft a preliminary ecotourism investment plan for the Tassili-Ahaggar region including preliminary business plans for selected demonstration facilities and services.
- ✍ Prepare a slide presentation suitable for delivery at public meetings and conduct a speaking engagement slide-show tour presenting to potential investors the ecotourism investment plan for the Tassili-Ahaggar region.
- ✍ In coordination with the Training team develop and deliver customised training programmes tailored to the needs of different target groups such as government agencies, private investors, tourism professionals and local ecotourism service providers; a non-exhaustive list of topics to be covered would include environmental impact assessment, licensing, design of appropriate infrastructure and facilities, development of specialised ecotourism services, minimum-impact camping and leave no trace techniques, interpretation and guiding skills, environmental ethics and marketing of ecotourism services.
- ✍ Review and finalize detailed terms of reference and work plans for the ecotourism development activities to be sub-contracted by the project and assist in selecting a suitable private-sector company for their implementation; provide technical backstopping and closely monitor sub-contracted activities ensuring that they are in full compliance with the project's approach and objectives.
- ✍ Assist in developing and operationalizing policies and management plans for the two National Parks, which effectively incorporate lessons learnt from project implementation.

- ✍ Incorporate mechanisms to capture and share lessons learned through their inputs to the project, and to ensure that the results are reflected in relevant reporting systems

Selection Criteria

- ✍ Senior ecotourism expert with at least 15 years of professional experience.
- ✍ Proven ability to develop ecotourism facilities and services in desert ecosystems; previous experience in the Tassili-Ahaggar region desirable.
- ✍ Fluency in the French language; working knowledge of Arabic desirable.
- ✍ Ability to report on project activities according to the highest international standards.
- ✍ Willingness to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

INFORMATION, EDUCATION, COMMUNICATION (IEC) SPECIALIST

Duration of Assignment: 12 m/m over 8 years.

Background: The IEC Specialist shall take the lead in formulating an overall and cohesive IEC strategy for the project including targeting the identification of suitable messages, and the development and field-testing of pilot IEC tools and activities. The incumbent shall provide technical backstopping and closely monitor sub-contracted IEC activities, as well as playing an active role in the training activities of the project.

Duties and Responsibilities

- ✍ Conduct a survey to identify and determine the profile of target groups among: (i) the general public at local and national levels, (ii) stakeholder communities involved in the conservation and management of biodiversity in the Tassili-Ahaggar region, (iii) specialised groups such as decision makers, academics, administrators, technicians, citizen pressure groups etc.
- ✍ Undertake a scoping exercise with key stakeholders to identify the main elements and content of a message that will effectively convey to different target groups the natural and cultural value of the Tassili-Ahaggar and by drawing on the unique cultural vestiges of the region, which emphasises the role of the protected areas in demonstrating the harmonious relationship between man and the natural environment.
- ✍ Contribute to establishing a visual identity for the protected areas by leading project efforts to engage local communities through awareness events, school competitions, etc. in the creation of a logo for the Tassili-Ahaggar region, which captures the essence of the message to be associated with the area.
- ✍ Design a comprehensive and finely targeted IEC programme with clear identification of target groups, messages and content, and detailed specifications for IEC tools and activities to be realised during the course of the project.
- ✍ Review and finalize terms of reference and work plans for the IEC activities to be sub-contracted by the project and assist in selecting suitable local NGOs for their implementation.
- ✍ Provide technical backstopping and closely monitor sub-contracted activities ensuring that they are in full compliance with the project's approach and objectives and operate any required changes to adapt the IEC strategy and modify program delivery.
- ✍ In coordination with the Training team develop and deliver customised training programmes tailored to the needs of different target groups and the social outreach staff of the PAMUs.

- ✍ Assist in developing and operationalizing policies and management plans for the two National Parks, which effectively incorporate lessons learnt from project implementation.
- ✍ Incorporate mechanisms to capture and share lessons learned through their inputs to the project, and to ensure that the results are reflected in relevant reporting systems

Selection Criteria

- ✍ Senior IEC specialist with at least 15 years of professional experience.
- ✍ Proven ability to develop and implement IEC activities as part of biodiversity conservation projects.
- ✍ Fluency in the French language; working knowledge of Arabic desirable.
- ✍ Ability to report on project activities according to the highest international standards.
- ✍ Willingness to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

MONITORING & EVALUATION SPECIALIST

Duration of Assignment: 13 m/m over 8 years.

Background: The M&E Specialist will assist in building the capacity of the PAMUs to develop systematic monitoring of biodiversity, as a crucial tool supporting the planning and management of the protected areas under their mandate. This will be achieved through two main and related streams of activity, based on the establishment of a central Biodiversity Monitoring Unit (BMU) for the Tassili-Ahaggar region and of field units based in PAMU sub-headquarters (. A long-term “management-driven” monitoring program will track: (i) habitat and land use, (ii) selected species, (iii) utilization of biodiversity and (iv) PA management effectiveness. Monitoring data will be stored in an information system designed to support PAMU decisions and provide links with other national and international institutions (see Output 2 and Sub-contract D).

Duties and Responsibilities

- ✍ Collaborate with other agencies, institutions and academics in the design of the monitoring programme, building consensus on monitoring priorities.
- ✍ Identify a manageable and cost-effective set of indicators, which monitor key biodiversity resources and their utilisation as well as management effectiveness in the two protected areas.
- ✍ Develop simple participatory methods for data collection by PAMU staff, so that different teams may collect information and results compared with confidence.
- ✍ Conduct pilot surveys as a first cycle in the long-term monitoring program and establish controls against which changes in the system can be measured.
- ✍ Coordinate the collection, analysis and storage of data.
- ✍ Establish detailed terms of reference and work plans, for the outsourcing of selected components of the programme to national institutions already engaged in monitoring and research activities in the Tassili-Ahaggar region.
- ✍ Monitor the performance of subcontracted activities ensuring that they are in full compliance with agreed conditions during implementation.
- ✍ Evaluate the results of the monitoring program ensuring feedback from PAMU staff and operating any necessary modifications in design and methods.

- ✍ Synthesise data, disseminate results and play an active role in the planning, research and training activities of the PAMUs.
- ✍ Ensure that information is shared with all serious stakeholders in biodiversity conservation and that the BMU acts as a central facilitating point between institutions and people managing biodiversity information on the Tassili-Ahaggar region.
- ✍ Incorporate mechanisms to capture and share lessons learned through their inputs to the project, and to ensure that the results are reflected in relevant reporting systems

Selection Criteria

- ✍ Post-graduate degree in natural resource management or related subject with at least 10 years of professional experience.
- ✍ Proven ability to design and implement biodiversity monitoring and evaluation programmes.
- ✍ Conversant with integrated database management and Geographic Information Systems.
- ✍ Fluency in the French language; working knowledge of Arabic desirable.
- ✍ Ability to report on project activities according to the highest international standards
- ✍ Willingness, to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

SUSTAINABLE LIVELIHOOD SPECIALIST

Duration of Assignment: 11 m/m over 8 years.

Background: The Livelihood Specialist will assist in the identification and planning of sustainable livelihood interventions and provide technical backstopping and monitoring of sub-contracted activities and approved interventions. The incumbent shall assist in developing and operationalizing policies and management plans for the two National Parks and play an active role in the training activities of the project.

Duties and Responsibilities

- ✍ Review, update and validate, the sustainable livelihood interventions identified during the PDF-B (Annex 6), finalizing detailed terms of reference and work plans for sustainable livelihood activities to be subcontracted by the project.
- ✍ Prepare and publicly disseminate calls for project proposals and other instructional materials, establishing linkages with collaborating government departments and other donors that can potentially support livelihood activities in the project area.
- ✍ Provide advisory services to community members and assist local CBOs in the preparation of livelihood feasibility studies and proposals for submission to the GOA, UNDP and other donors.
- ✍ In coordination with the Training team, design and conduct a series of training and orientation workshops to support the design and development of suitable project proposals, targeting potential beneficiaries of sustainable livelihood interventions.
- ✍ Review and screen all project profiles for adherence to basic selection requirements and assist in the preparation of scopes of work, implementation arrangements and budgets for approved interventions.

- ✍ Monitor the implementation of subcontracted activities and approved interventions through periodic site visits and the review of interim technical reports, ensuring that they are in full compliance with the project's approach and objectives.
- ✍ Report comprehensively on the progress in the implementation of sustainable livelihood interventions, as specified in the relevant agreements with the GOA and other donors, making recommendations for procedural adjustments and other changes to improve their effectiveness and efficiency.
- ✍ Prepare and document financial information to facilitate annual audits by independent auditing firms and assist in conducting a mid-term assessment and terminal evaluation of sustainable livelihood interventions.
- ✍ Assist in developing and operationalizing policies and management plans for the two National Parks, which effectively incorporate lessons learnt from project implementation.
- ✍ Incorporate mechanisms to capture and share lessons learned through their inputs to the project, and to ensure that the results are reflected in relevant reporting systems

Selection Criteria

- ✍ Advanced degree in Resource Economics, Environmental Economics, or related field.
- ✍ At least 10 years of professional experience in the design and implementation of sustainable livelihood activities in rural areas, particularly in the North African region.
- ✍ Strong knowledge of biodiversity conservation fundamentals.
- ✍ Fluency in the French language; working knowledge of Arabic desirable.
- ✍ Ability to report on project activities according to the highest international standards.
- ✍ Willingness to travel extensively within the parks and work in the field for extended periods of time, often under difficult conditions.

Annex 10. Terms of Reference for Sub-contracted Activities

SUB-CONTRACT A: INFRASTRUCTURE DEVELOPMENT

Objective: Design and construction of basic infrastructure for the protected areas.

Outline of activities

(Detailed ToRs, based on Output 1 of the project document, will be developed by the PAMU within six months from project inception with the assistance of the Chief Technical Advisor – see Annex 9).

- ✍ Completion of Tassili n'Ajjer NP headquarters
- ✍ Construction of headquarters for the Ahaggar NP.
- ✍ Design and construction of 5 sub-headquarters.
- ✍ Design and construction of 63 outposts.
- ✍ Partial delimitation and sign posting of 3,000 km of tracks.
- ✍ Design and construction of visitor facilities.
- ✍ Establishment of a radio-communication system linking the headquarters, sub-headquarters, outposts and mobile units.

Experience: The subcontractor will be a private sector construction company sub-contracted according to national/UNDP tender procedures for the design and development of infrastructure.

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractor shall be accountable to the Project Managers for the quality and timeliness of outputs produced.

SUB-CONTRACT B: ECOTOURISM

Objective: To demonstrate the function of ecotourism as a conservation enhancing livelihood sector in the Tassili-Ahaggar.

Outline of activities

(Detailed ToRs, based on Output 3 of the project document, will be developed by the PAMU within six months from project inception with the assistance of the Ecotourism specialist – see Annex 9).

- ✍ Formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services.
- ✍ Sensitise tourism operators, potential investors and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism.
- ✍ Conduct training programmes for interpretation and guiding services.
- ✍ Provide technical assistance and micro-credits to facilitate local, private sector initiatives in obtaining usufruct rights and leases for the development and operation of ecotourism facilities and services (e.g. eco-centres, crafts, trekking tours, etc.).

- ⚡ Strengthen the capacity of the PAMU and other regulatory bodies to license ecotourism activities according to best practice guidelines and ensure full compliance with procedures set out in the licences and related EIAs.
- ⚡ Design and implement, in collaboration with the private sector and other stakeholders, a comprehensive marketing strategy to promote the Tassili - Ahaggar as a leading ecotourism site in the Central Saharan region.

Experience: The subcontractor will be a national private sector company with previous experience in the Tassili-Ahaggar region, specialising in the development and marketing of community-based ecotourism services in Algeria.

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractor shall be accountable to the Project Managers for the quality and timeliness of outputs produced.

SUB-CONTRACT C: INFORMATION, EDUCATION, COMMUNICATION (IEC)

Objective: To formulate and implement a cohesive and finely targeted IEC programme in order to stimulate local and national advocacy for biodiversity conservation by raising the level of public awareness and involvement in the conservation and management of the protected areas.

Outline of activities

(Detailed ToRs, based on Output 4 of the project document, will be developed by the PAMU within six months from project inception with the assistance of the IEC specialist – see Annex 9).

- ⚡ Development of a wide range of field-based environmental education activities and tools targeting primary and secondary school students and complementing formal education programmes.
- ⚡ Design and development of interpersonal communication tools such as familiarisation tours, thematic workshops, information portfolios for specialised audiences of decision-makers, educationalists, tourism professionals, environmental NGOs, etc.
- ⚡ Implementation of co-ordinated public relations with the press and media ensuring accurate and timely coverage of project activities in national and local TV and radio, and in selected dailies, weeklies and trade magazines, aiming at mass circulation, opinion leading and advertising.
- ⚡ Production of high-quality TV documentaries and internet-based products targeting the wider national and international public to support public relations activities, disseminate project results and make available in the public domain information on the protected area and its activities.

Experience: The subcontractor will be a suitable local NGOs such as the Amis du Tassili, which will outsource selected activities to a core of professional journalists active in the local and national press and media and selected educationalists serving in primary and secondary schools of the Tassili-Ahaggar region.

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractor shall be accountable to the Project Managers for the quality and timeliness of outputs produced.

SUB-CONTRACT D: BIODIVERSITY MONITORING

Objective: To build the capacity of the PAMUs for systematic monitoring of biodiversity, as a crucial tool supporting the planning and management of the protected area under their mandate.

Outline of activities

(Detailed ToRs, based on Output 5 of the project document, will be developed by the PAMU within six months from project inception with the assistance of the M&E specialist – see Annex 9).

The monitoring programme will concentrate on selected parameters, in an attempt to generate information, which is directly applicable to the PAMU's core business - the planning and management of protected areas.

- ✦ Habitat and land use monitoring. Broad-scale habitat and land use patterns will be analysed through remote sensing and ground surveys in order to detect changes in the levels of human-related pressure on areas of key resources and important biological corridors. The final output is to be adapted for a PC platform using a user-friendly GIS package and established at PAMU headquarters.
- ✦ Species monitoring. It will be most cost-effective to concentrate on a small number of species which are directly related to key management issues due to their economic impact, social importance, or their role as keystone / flagship species (e.g. among the mammals, Barbary sheep, the gazelles and cheetah). Bird checklists will be regularly updated and the seasonal abundance of at least a selection of migratory species and of endemic and threatened species monitored. A selection of key species of reptiles, amphibians and invertebrates will also be monitored as well as a limited number of endemic and/or threatened plant species such as *Olea laperrini* and *Cupressus dupreziana*.
- ✦ Monitoring utilisation of biodiversity. In addition to monitoring land use and habitat conversion within human impact zones (see above), participatory monitoring techniques will be employed to track a further set of indicators such as: (i) the number and category of direct and indirect users of biodiversity; (ii) qualitative / quantitative estimates of harvesting pressure and stock depletion rates; (iii) economic benefits from the extraction and utilisation of biodiversity resources and (iv) the risk of loss of biodiversity components.
- ✦ Monitoring management of protected areas. The effectiveness of PA management will be monitored through standardised methods of reporting with measurement of achievements against time-bound targets and by employing indicators, which are reflected in the annual work plans for each protected area. The following key areas should be considered: (i) staff performance and welfare; (ii) finance and administration; (iii) effectiveness of management of vehicles, tools and equipment; (iv) conservation and protection activities; (v) estate management; (vi) range and wildlife management; (vii) visitor management; (viii) IEC and extension activities; (ix) implementation of research and monitoring programme.
- ✦ Information management. A simple and manageable information system will be established in order to co-ordinate the flow of data from direct monitoring as well as the information generated by external specialists and other agencies. The system should provide a framework to organise data and eventually become a source of information to be used in everyday management work. Staff should be trained to input data and encouraged to use the system by maximising user-friendliness, providing good support and generating data sets and reports that contribute to management decisions.

Experience: The subcontractors will include the following institutions already engaged in monitoring and research activities in the Tassili-Ahaggar region: (i) the National Forestry Research Institute

(INRF); (ii) the National Meteorological Office (iii) the National Research Centre for Arid Regions (CRSTRA).

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractor shall be accountable to the Project Managers for the quality and timeliness of outputs produced.

SUB-CONTRACT E: MANAGEMENT PLANNING

Objective: To develop a prioritised management plan for the Tassili-Ahaggar region, finely adapted to the ecological, social and economic specificity of the two protected areas and incorporating the adaptive management framework underpinning the CM process and derived agreements (see output 2).

Outline of activities

(Detailed ToRs, based on Output 6 of the project document, will be developed by the PAMU within six months from project inception with specific inputs from the Chief Technical Advisor – see Annex 9).

- ✍ Desktop survey and review of all available information on the Tassili-Ahaggar region.
- ✍ Field surveys to complete the collection of baseline data on biodiversity resources and their utilisation including associated threats and root causes.
- ✍ Compilation of resource profiles for the PAs, including baseline and thematic maps and technical descriptions generated by the GIS and M&E systems.
- ✍ Participatory planning - initiated through the CM process - based on extensive interaction and negotiations with key stakeholders of the protected areas.
- ✍ Preliminary zoning, based on priority management issues identified through stakeholder consultations and complementary information produced by specialist missions and the GIS and M&E systems.
- ✍ Formulation of draft management plan.
- ✍ Regional and national reviews of draft management plan by relevant institutions, government departments and key stakeholders.
- ✍ Completion and official adoption of management plan for implementation.

Experience: The subcontractor will be a small team of planners and specialists with long-term experience in the formulation of management plans integrating biodiversity conservation with wider development planning at wilaya and national levels.

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractor shall be accountable to the Project Managers for the quality and timeliness of outputs produced.

SUB-CONTRACT F: ECO-DEVELOPMENT AND SUSTAINABLE LIVELIHOOD

Objective: To uphold the multiple livelihood strategies adopted by people living within the protected areas while maximising the positive contribution made by biodiversity to livelihood outcomes.

Outline of activities

(Detailed ToRs, based on Output 7 and Annex 6 of the project document, will be developed by the PAMU within six months from project inception with specific inputs from the Sustainable Livelihood Specialist – see Annex 9).

The following proposed interventions – detailed under Annex 6 - would be carried out with financing from government and development agencies, with the GEF paying the agreed incremental costs equivalent to removing barriers and mitigating impacts standing against conservation of globally significant biodiversity:

- ✍ Development of improved animal husbandry schemes based on goat fattening and the raising of local chicken varieties.
- ✍ Support to extensive pastoral management through the establishment of water collecting ponds in improved rangelands and strengthening of local tenure arrangements, rangeland custodianship and management practices.
- ✍ Design and implementation of pilot schemes to plant, produce and market economically valuable medicinal plants.
- ✍ Promotion of energy alternatives by demonstrating low-cost, off-grid technologies and providing micro-credits for the distribution of appliances such as solar stoves and ovens.
- ✍ Contribution to land rehabilitation schemes based on the planting of native tree species.
- ✍ Support to the diversification of ecotourism services based on the development of traditional handicrafts and of camel tours for visitors.

Experience: The subcontractors will include the following local organisations and decentralised government bodies located at wilaya level: (i) the pastoralists associations and the Agriculture department for the improved animal husbandry schemes; (ii) the pastoralists associations and the Forestry department for the extensive pastoral management and land rehabilitation schemes; (iii) the associations of agriculturists and the INRF for the medicinal plant scheme; (iv) the department of Environment and the public company SONELGAZ for the solar and energy alternatives scheme; (v) the handicraft associations and the department of tourism for the diversification of ecotourism services.

Duration: The outputs shall be delivered during the 8-year duration of the project according to a detailed schedule and work plan developed by the PAMU within the first 6 months from project inception.

Accountability: The subcontractors will be accountable to the Project Managers for the quality and timeliness of outputs produced.

ANNEX 11. LIST OF REFERENCES

- Abdelguerfi, A., 2000. Les Aspects d'Agriculture et les Problèmes des Crues. PDF-B report.
- Abdelkrim, H. 2000. Flore & vegetation : le Tassili n'Ajjer. PDF-B report.
- Barry, J.P. et al. (1970). Essai de monographie de *Cupressus dupreziana*, cypres endémique du Tassili des Ajjer (Sahara Central). Bull. Soc. Hist. Nat. Afrique Nord Alger 61:95-178.
- Bernard. (1953). Recherche zoologiques et médicales, memoire I. IRS, Alger.
- Bedrani, S., 2000. Les activités économiques dans les wilayate de Tamanrasset et Illizi. PDF-B report.
- Bedrani S. and Sahki A., 2000. Projet ALG/99/G41/A/1G/99 Préservation et utilisation durable de la diversité biologique d'intérêt mondial dans les Parcs nationaux de l'Ahaggar et du Tassili. Données supplémentaires. PDF-B Report.
- Bellatreche, M, 2000. L'état De La Faune Ornithologique Du Parc National Du Tassili N' Ajjer. PDF-B report.
- Beniston, N.T. et Beniston, W.S. (1984). Fleurs d'Algérie. Entreprise Nationale du Livre, Alger.
- Borrini-Feyerabend, G. 1996. Collaborative management of protected areas: tailoring the approach to the context. Issues in Social Policy. IUCN. Gland (Switzerland).
- Bousquet, B. Parc National du Tassili n'Ajjer. Conservation, valorisation. UNESCO, 1987.
- de Smet, K. (1984). Réserves naturelles et parcs nationaux en Algérie. L'homme et l'oiseau IV: 259-268.
- de Smet, K. (1989). Etude de la distribution et du choix des habitats des grands mammifères en Algérie. Département de Foresterie, INA, El Harrach, Algeria. 355 pp.
- Dida, B., 2000. Pour La Sauvegarde Des Régions Du Tassili Et De L'ajjer. PDF-B report.
- Dobr, J. (1988). *Cupressus dupreziana*. Threatened Plants Newsletter 20: 8.
- Driss, A. 2000. Gestion-Planification Des Aires Protégées. PDF-B report.
- Dubief (1959). Le climat du Sahara. Vol. I. IRS, Alger.
- Dubief (1963). Le climat du Sahara. Vol. II. IRS, Alger.
- Fabre (1978). Introduction à la géologie du Sahara algérien. SNED, Alger.
- Hugot H.J. (1974). Le sahara avant le desert. Editions hespérides, Paris.
- IUCN, 2000. Projet Conservation du Guépard. Prepared by M. Metfah Toufik. Programme IUCN pour l'Afrique du Nord.
- Keenan, J., 1973. The Tuareg. ST. Martin's Press, New York.
- Kerzabi, A. (1981). Tassili N'Ajjer World Heritage Nomination. 13 April, 1981. Director of OPNT, Ministry of Information and Culture, Alger.
- Kerzabi, A. (1986). Les populations et la protection du patrimoine de la région d'Iherir - Parc National du Tassili N'Ajjer. Man and the Biosphere (MAB) workshop Florac, France.
- Khelloufi, R., 2000. Rapport Sur Les Aspects Juridiques Et Institutionnels. PDF-B report.
- Khammar, F., 2000a. Gestion de la faune sauvage au Sahara Central : Tassili N'Ajjer. PDF-B report.
- Khammar, F, 2000b. Education, Formation, Information, Communication. PDF-B report.

- Khidas, K, 2000. Gestion Et Conservation De La Faune Sauvage du Parc national de l'Ahaggar. PDF-B report.
- Le Berre, M. (1986). The vertebrates of Iherir Tassili N'Ajjer, Algeria ecological and biogeographic review. *Compte Rendu des seances de la Societe de Biogeographie* 62(4): 111-132.
- Ledant J-P., Roux, F., Jarry, G., Gammel, A., Smit, C., Bairlein, F. and Wille, H. (1985). Aperçu des zones de grand intérêt pour la conservation des espèces d'oiseaux migrateurs de la communauté en Afrique. Rapport à la Direction Générale de l'Environnement, de la Protection des Consommateurs et de la Sécurité nucléaire de la Commission des Communautés européennes. Contrat U/84/129.
- Leredde C. (1957). Etude écologique et phytogéographique du Tassili N'Ajjer. Mission Scientifique au Tassili, 1949. IRS, Alger.
- Mathez, J., Quézel, P and Raynaud, C. (1985). The Maghreb countries. In *Plant conservation in the Mediterranean area*. Gomez-Campo, C. (ed). Junk publishers, Dordrecht. Pp 141-157.
- Mehta, L., Leach, M., Newell, P., Scoones I., Sivaramakrishnan, K. & Sally-Anne Way, 1999. Exploring understandings of institutions and uncertainties: new directions in natural resource management IDS Discussion Paper 372. Environment Group, Institute of Development Studies, University of Sussex.
- MHEF (1985). Rapport National sur la Protection de l'Environnement en Algérie. Ministère de l'Hydraulique, de l'Environnement et des Forêts. Decembre, 1985. Alger.
- MHEF (1985). Aperçu sur la faune algérienne et la politique engagée pour sa protection et son développement. Ministère de l'Hydraulique, de l'Environnement et des Forêts. Alger.
- Mimi, K., 2000a. Analyse Sectorielle Etude Elaborée Pour Le Groupe Socio-Économique. PDF-B report.
- Mimi, K. 2000b. Mise En Valeur Par Le Tourisme Durable Dans Les Deux Parcs De l'Ahaggar Et Du Tassili n'Ajjer. PDF-B report.
- Ministère de l'Intérieur, des Collectivités Locales et de l'Environnement , 1997. Elaboration de la stratégie nationale pour la conservation et l'utilisation durable de la diversité biologique. Rapport intérimaire, Secrétariat d'Etat Chargé de l'Environnement République Algérienne Démocratique et Populaire
- Nedjraoui, D., 2000. Ong et Menaces. PDF-B report.
- Moali, A., 2000. L'état De La Faune Ornithologique Du Parc de l'Ahaggar. PDF-B report.
- Nicolansen & Nicolansen (1997). The pastoral Tuareg: ecology, culture and society.
- Ozenda, P. (1958). Flore du Sahara septentrional et central. CRNS, Paris.
- Quézel, P. (1962). Nouvelle Flore de l'Algérie et des régions désertiques méridionales. CNRS, Paris.
- Quézel, P. (1964). La végétation du Sahara. Mason, Paris.
- Quézel, P. et Martinez, C. (1961). Le dernier interpluvial au Sahara central. *Lybica* 6-7: 211-227.
- Quézel, P. et S. Santa. (1962). Nouvelle flore de d'Algérie. CRNS, Paris.
- Sahraoui, B., 2000. La Végétation Du Parc National De l'Ahaggar. PDF-B report.
- Scoones, I. 1993. Living with uncertainty : new directions for pastoral development in Africa. International Institute for Environment and Development, UK.
- UN, 1992. United Nations World List of Protected Areas.
- UNESCO, 1995. The Seville strategy for Biosphere Reserves. *Nature and Resources*, 31, 2:2-10.
- Verschuren J. (1984). Plan de gestion du site du patrimoine mondial- parc national du Tassili, Algérie. Rapport de mission UNESCO (patrimoine) et recommandations. Bruxelles.

Zeraia, L. (1983). Protection de la Flore, liste et localisation des espèces assez rares, rare et rarrissimes. Station centrale de recherche en écologie forestière, Alger.

ACTIVITIES	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				YEAR 8							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.17 Institute equipment maintenance operations																																				
1.18 Ensure additional costs of new staff and equipment maintenance are absorbed into PAMU budget																																				
1.19 Institutionalisation of income-generating activities to supplement the PAMU recurrent budget																																				
Output 2. Implementation of collaborative management agreements involving key stakeholders.																																				
2.1 Establish and mobilise interdisciplinary Collaborative Management (CM) team.																																				
2.2 Train PAMU social outreach teams in participatory learning and action skills																																				
2.3 Negotiate pilot CM agreements based on key steps outlined in output 2.																																				
2.4 Accord usufruct and stewardship rights to local communities over areas and/or resources stipulated in CM pilot agreements																																				
2.5 Formalise, publicise and initiate implementation of CM pilot agreements																																				
2.6 Support functioning of PAMB																																				
2.7 Support the implementation of formalised CM agreements																																				
2.8 Provide further training for PAMU social outreach staff and selected stakeholders, as a means of forwarding the CM process																																				
2.9 Build-capacity of local conservation-enabling institutions with strong authority on legally-sanctioned communal natural resource regimes																																				
2.10 Convene regular intra-community forums to facilitate inform exchanges and resolve outstanding problems between community-based groups																																				
2.11 Convene periodical meetings between local management committees to share experiences and co-ordinate management activities.																																				
2.12 Continue to support the functioning of the PAMB and attendance by local management committee representatives																																				
Output 3. Promotion of environmentally compatible and non-intrusive ecotourism.																																				

ACTIVITIES	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				YEAR 8							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
3.1 Sensitise tourism operators and other concerned parties about desert conservation and environmentally sound, sustainable desert tourism																																				
3.2 Conduct training programmes for interpretation and guiding services and the management of visitor interpretation facilities																																				
3.3 Provide technical assistance and micro-credits to facilitate the development and operation of ecotourism facilities and services																																				
3.4 Strengthen the capacity of the PAMU and other regulatory bodies to monitor ecotourism activities according to licenses and related EIAs																																				
3.5 Design in collaboration with the private sector and other stakeholders, a finely targeted marketing strategy.																																				
3.6 Formulate and publish best practice guidelines for the development and diversification of ecotourism facilities and services																																				
3.7 Strengthen the capacity of the PAMU and other regulatory bodies to license ecotourism activities																																				
3.8 Continue supporting local, private sector initiatives in obtaining usufruct rights and leases for the development of eco-tourism facilities and services																																				
3.9 Support the implementation of a marketing strategy to promote the Tassili Ahaggar as a leading ecotourism site in the Central Saharan region.																																				
Output 4. Conservation awareness through targeted Information, Education, Communication (IEC) programmes.																																				
4.1 Develop with local stakeholders a comprehensive Information, Education, Communication (IEC) strategy.																																				
4.2 Design and develop pilot IEC tools and activities																																				
4.3 Test and modify pilot IEC tools and activities																																				
4.4 (i) Implement field-based environmental education activities and tools complementing formal education programmes.																																				
4.4 (ii) Conduct familiarisation tours, thematic workshops and produce information portfolios for specialised audiences.																																				

ACTIVITIES	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				YEAR 8							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
6.2 Field surveys to complete the collection of baseline data on biodiversity resources, their utilisation, associated threats and root causes																																				
6.3 Production of baseline and thematic maps for PAs through the services of the GIS system																																				
6.4 Synthesis of information on resource profile and technical descriptions of the two protected areas																																				
6.5 Participatory planning through extensive interaction and negotiations with key stakeholders as initiated through the CM process (output 2)																																				
6.6 Draft zoning, based on stakeholder consultations and information from specialist missions, integrated GIS and M&E systems																																				
6.7 Formulation and adoption of management guidelines for second phase of project																																				
6.8 Implementation and testing of management guidelines produced during the first phase.																																				
6.9 Regular revision and updating of management plans according to key steps indicated under activities 6.1 – 6.6																																				
6.10 Formulation of a comprehensive management plan covering the five-year period following project termination.																																				
6.11 Regional and national review: of management plans by relevant institutions, government departments and key stakeholders																																				
Output 7. Supporting eco-development and sustainable livelihoods																																				
7.1 Sensitise the private and public sectors by developing resource materials and hosting local workshops																																				
7.2 Negotiate and sign memorandums of understanding with partner agencies, establishing a joint programmatic framework.																																				
7.3 Provide incremental technical assistance for the design and implementation of co-financed sustainable livelihood pilot schemes																																				
7.4 Improved animal husbandry based on goat-fattening and the raising of local chicken varieties;																																				
7.5 Extensive pastoral management based on the establishment of water collecting ponds in improved rangelands;																																				

ACTIVITIES	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				YEAR 8							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
7.6 Planting, production and marketing of economically valuable medicinal plants;																																				
7.7 Micro-credit programme promoting energy alternatives and the distribution of solar appliances;																																				
7.8 Land rehabilitation programme based on the planting of native tree species;																																				
7.9 Traditional handicrafts and camel tours for visitors, supporting the diversification of ecotourism services																																				
7.10 Continue to provide incremental technical assistance for the design and implementation of sustainable livelihood pilot schemes																																				
7.11 Work with community planners to ensure timely delivery of co-financed activities																																				
7.12 Ensure conservation objectives are fully incorporated into regional development plans, including infrastructural and sectoral plans																																				
7.13 Support advocacy functions of NGOs to monitor development operations and provide early warning of conflicts and malfeasance																																				

ANNEX 13: ENDORSEMENT LETTER AND CO-FINANACE COMMITMENT LETTER

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UNDP ALGIERS

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الجمهورية الجزائرية الديمقراطية الشعبية

وزارة تهيئة الإقليم و البيئة

المفتش العام للبيئة

17 SEPT 2001

في الجزائر

رقم.../...م.ع

MONSIEUR LE REPRESENTANT RESIDENT A.I

OBJET : Endossement du document de projet relatif à la préservation de la biodiversité d'intérêt mondial dans les parcs nationaux du TASSILI et de l'AHAGGAR

REF : Votre Envoi du 09 septembre 2001

Par envoi visé en référence, vous avez bien voulu, en ma qualité de point focal opérationnel national pour le FEM, m'informer de la contribution financière d'un montant global de 500.000 USD, décidée par le PNUD, pour soutenir les activités relatives à la lutte contre la pauvreté et les alternatives de subsistance identifiées par le projet cité en objet, d'une part, et le document « Brief », pour commentaires et endossement, d'autre part.

MONSIEUR JULIO GRIECO
REPRESENTANT RESIDENT A.I
PNUD - ALGER



**Ministère de la Communication
et de la Culture**
Direction du Patrimoine Culturel
DPC n° 310

30 SEPT 2001

**Monsieur le Représentant
Résident du PNUD**

Objet :Projet ALG/99/G41/ A /14/ 99

Monsieur le Représentant Résident, J'ai l'honneur de porter à votre connaissance que le Ministère de la Communication et de la Culture s'engage, dans le cadre du projet relatif à la préservation de la biodiversité d'intérêt mondial dans les deux parcs nationaux du Tassili et de l'Ahaggar, à assurer la pérennité de la couverture des coûts récurrents engendrés par la réalisation du projet.

Veillez croire, Monsieur le représentant résident à l'expression de ma parfaite considération.

A.KHELIFA
Directeur du Patrimoine Culturel



ANNEX 14. STAP TECHNICAL REVIEW / RESPONSE TO STAP COMMENTS

Algeria – Conservation and sustainable use of globally significant biodiversity in the Tassili and Ahaggar National Parks

by

Professor Vernon Heywood
Centre for Plant Diversity and Systematics
School of Plant Sciences
The University of Reading, UK

Introduction

"part à un moment qui ne te convient pas, quand tu arriveras le moment te plaira"
proverbe targui

1. This is an important and complex proposal that aims to protect a representative sample of the biodiversity of the Central Sahara region and specifically address the various issues involved in conserving and using sustainably those elements of biodiversity that are of global importance in the Tassili and n'Ajjer Ahaggar National Parks. These issues are usually not covered specifically in management plans for National Parks or other Protected Areas. The Tassili and Ahaggar Parks themselves, covering a land area of 452 000 km², are of global importance and important for resting migratory Palaearctic birds; they are also critical for desert biome conservation where the extreme environments, fragility of the ecosystems, climatic fluctuation, and physiological stress pose major challenges for the successful maintenance and exploitation of their biodiversity.

2. The sheer size of the area involved and its low population density, outside the urban areas, of nomadic Tuareg with their characteristic pastoral land use system, often involving annual transhumance, are additional complicating factors. The area contains 73 endemic species, half of which are threatened according to IUCN criteria, some of which are of economic or special scientific importance such as wild relatives of olive (*Olea laperinni*), a relict cypress (*Cupressus dupreziana*) that is one of 12 critically endangered plants selected by IUCN's Species Survival Commission to highlight the serious threats to species around the world, barbary sheep (*Ammotragus lervia*), slender-horned gazelle (*Gazella leptoceros*), the extremely endangered scimitar-horned oryx (*Oryx dammah*), and the cheetah (*Acinonyx jubatus*).

Scientific and technical aspects

3. Project preparation was carried out by means of a PDF-B grant during which a number of key lessons were learned (p.18) and taken into account in the project design. Also during the PDF-B phase, key biodiversity sites were assessed as suitable for demonstration of the management techniques to be replicated and applied on a wider scale. Six core areas have been identified covering between them c.10% of the combined Tassili and Ahaggar NPs.

4. The resultant proposal is generally well prepared and detailed. It is unusual in that it is planned to extend over two eight years in two phases, with a shorter preparatory phase of three years and a longer second phase of five years that will deliver the planned final outcomes of the project. It is noted that a mandatory independent evaluation will take place before moving on to the second phase of the project.

5. The Baseline Course of Action provides a critical and perceptive analysis of the current situation. It recognizes the seriously incomplete state of the biological inventory of the area and the unique vulnerability of these extreme dryland ecosystems that are characterized by climatic variability and unpredictability. It also identifies the main threats to the biodiversity of the area such as the overexploitation of the vegetation and particular species for fuelwood, charcoal, medicinal and culinary use; poaching; and unsustainable tourism, and the underlying causes such as inadequate institutional capacity and infrastructure, the insufficient involvement of local communities and the poor level of appreciation of conservation needs in the local development agenda.

6. The GEF Alternative proposed envisages seven key outputs. The first of these, institutional capacity building for field conservation hinges the ability to develop the human resources of the Protected Area Management Units (PAMUs), whose chief mandate is intended to become biodiversity conservation, mainly through training and redeployment of existing PAMU staff (provided they are able and willing), plus recruitment of a small number of additional technical and management staff, and by formal and informal training and study visits/overseas attachments. Given the known scarcity of biodiversity experts in Algeria, this will be a major challenge and will require considerable inputs from external consultants at least during the initial years. The second output, collaborative management of protected areas, is informed by a set of guidelines developed during the PDF-B process, and is planned to be flexible and highly participatory, with the establishment of conservation-enabling institutions as a key output. Output 3, management of ecotourism so as to demonstrate innovative, environmentally friendly economic activities that meet sustainable livelihood needs, will require considerable turn-around of the present situation but the proposed activities are well thought out. Output 4, the development of a comprehensive Information, Education, Communication strategy, to build local and national constituencies for biodiversity conservation, through raising the level of public awareness and their involvement in the conservation and management of the protected areas, is ambitious but well planned.

7. The activities of outputs 5 and 6 – monitoring and evaluation and management plans – are interrelated and partly interdependent. For example, monitoring depends on the establishment of a baseline set of data but this is included in the activities of output six. It is not clear that the development of a 'prioritised management plan for the Tassili-Ahaggar region' (p. 13, para 39) and the references in the Logical Framework to management plan or plans includes the preparation of management (or recovery) plans for the target species of plants and animals that are selected, as opposed to the parks as a whole. Likewise, no mention is made of the need for ecogeographic studies on these target species as a necessary precursor to such management plans although they may be included under Output 6, Activity 6.2 'Field surveys to complete the collection of baseline data on biological resources' (the term 'biodiversity resources' is a vague one). Since there is a common failure on the part of protected area managers to recognize the distinction between *in situ* conservation of ecosystems and *in situ* conservation of target

species within ecosystems, it would be helpful to address this quite explicitly in this project, since not only are they separate operations but have cost, training and resource implications.

8. Output 7 is also a complex one and involves a range of diverse activities ranging from micro-credit and ecotourism services to improved animal husbandry and medicinal plant cultivation and marketing as pilot sustainable livelihood schemes. Regarding the latter, medicinal plant cultivation to relieve pressure from over-collection of wild specimens, it is stated (p. A-6, para ? *Medicinal Plants*) that the 'GEF will fund the costs of adapting, transferring and demonstrating technical methodologies to cultivate, process, store and market medicinal species over-collected in the two parks; and the costs of brokering sustainable collection of wild specimens'. Annex I includes a list (somewhat marred by misspellings) of medicinal plants proposed for cultivation although it is not clear how it was derived. It should be noted that the conservation and sustainable use of medicinal plants is a highly complex, involving a series of tasks and issues, some of which are spelled out in the proposal. It is the subject of other substantial GEF-funded projects. There must be concern about the feasibility of covering this component adequately along with all the other activities proposed (themselves also complex) under this Output.

Global environmental benefits and/or drawbacks

9. The global environmental benefits that would derive from this Project if successfully implemented are several:

- ? The conservation and management of one of the world's most important desert protected areas
- ? The protection of the habitat for migratory Palaearctic birds
- ? The effective conservation and management of a number of the world's most endangered species of plants and animals
- ? Experience of conserving and managing specific biodiversity values (both at landscape/ecosystem and species/population level) within protected areas
- ? Collaborative management of protected areas

10. The only drawback is that the unique combination of circumstances limit the possibilities of applying the experience that can be derived from the project to other regions.

The GEF context, goals and operational strategies, Council guidance and provisions of the relevant Conventions

11. The Project meets all the main strategic considerations listed in the Operational Strategy 2 Biodiversity. It fits well into the GEF OP 1 on Arid and Semi-Arid Zone Ecosystems. It promotes the conservation and sustainable use of certain elements of biological diversity, in particular threatened endemic species, through many of the activities listed in O.P. 1.17.

12. It addresses many of the provisions of the Convention on Biological Diversity, notably Articles 6,7, 8, 10, 11, 12, 13, 14, 16, 17 and 18 and Annex 1 Identification and Monitoring.

Regional context

13. In the Saharan biogeographical province, the Tassili n'Ajjer and Ahaggar National Parks are of major importance for biodiversity conservation of the desert biome. Although the Tassili plateau is hyper-arid, there are sub-arid microclimates suitable for the survival of relict Mediterranean fauna and flora and as a consequence the flora has elements of Mediterranean, Sudano-Deccan and Saharo-Sindien species while the fauna contains elements originating from both the Mediterranean and the Saharan Palaeartic realm.

14. Traditional land-use systems such as various forms of pastoralism and transhumance are maintained in parts of the region by the indigenous peoples, such as the Tuareg and Bedouins in Algeria and in the southern High Atlas, Morocco. Medicinal and aromatic plants, have been used in the region for thousands of years and forms an important part of various local cultures; traditional medicines still play a major role in health care delivery systems.

Replicability

15. The project addresses a range of issues that, if successfully tackled, will be applicable to other parts of the desert biome in Africa and the Arab region, notably the negotiation of public participation strategies and agreements with local urban and community-based groups (including Bedouins) and their involvement as key stakeholders in the conservation and management of biodiversity and natural resources; the development of alternative livelihood strategies such as the introduction into cultivation of a range of medicinal plants species and their sustainable use and marketing, improved animal husbandry, and improvement of pastoral management; and the development of sustainable ecotourism. Other aspects, such as the conservation and management of elements of biodiversity such as target species of plants and animals, some of them highly endangered, within the overall context of the management plans of the National Parks themselves, should provide valuable lessons for application in other parts of the world.

Sustainability

16. As the Project Brief recognizes, the fragility of the desert ecosystems and the climatic variability, as well as the political uncertainties, add an element of unpredictability to the operations being proposed. The implementation and sustainability of the Project is largely dependent on the successful retraining and redeployment of the mainly existing staff of the Protected Area Management Units and on their willingness to remain in out-posted units, and on the identification and recruitment of additional technical and managerial staff, and external consultants, of suitable calibre. In addition, some of the activities and strategies that are proposed in the Projects, such as ecotourism and the implementation of participatory agreements, may be difficult to sustain at the desired

level, while others, such as the successful recovery or maintenance of endangered populations of plants and animals may be technically difficult to maintain.

Contribution to the improved definition and implementation of GEF strategies and policies

17. If successful, the Project should contribute to developing GEF strategies on sustainable management of target elements of plant and animal biodiversity within the context of Protected Area management strategies; also the development of community participatory management systems for biodiversity management. In particular, it should provide valuable lessons for further defining strategies for sustainable management of plant and animals resources in environmentally vulnerable arid and semi-arid zones, by combining production, socio-economic, and biodiversity goals.

18. It will also help define policies for the conservation and sustainable use of medicinal plants that are used by local communities and the recognition of their rights and the development of sustainable collection agreements of what are often overharvested resources.

Secondary issues

Linkages to other focal areas

19. The Project is relevant to the Focal Area of Climate change in view of the climatic instability of the area and its impact on its biodiversity. A part of the Project also specifically addresses issues that are of relevance to the Land Degradation Focal Area.

? Linkages to other programmes

20. Relevant linkages include the IBRD Sahara Regional Development Project (now closed), the UNDP/UNEP-supported Biodiversity Planning Support Programme Arab States (in which the WESCANA programme of IUCN - The World Conservation Union, coordinates the Arab States region and its 16 countries) and its database on biodiversity expertise in the region. There should be linkages to other UNDP and World Bank GEF projects in the region, e.g. the FP Transhumance for Biodiversity Conservation in the Southern High Atlas; and the PDF-B Morocco - Integrated Pastoral Range Management for Biodiversity Conservation and Sustainable Development.

Degree of involvement of stakeholders

21. Major parts of the project are concerned with the involvement of stakeholders, notably the activities leading to proposed output 2: Collaborative management of protected areas, that will involve representatives of local management committees as members of the Protected Area Management Board which includes all key stakeholders; those leading to proposed Output 6: Management plans developed and biodiversity conservation firmly on the local development agenda, that will involve key stakeholders in the Protected Areas; and those leading to Output 7: Eco-development and sustainable

livelihoods. The end of project situation envisages the collaborative management of the Protected Areas by involving all key stakeholders.

Capacity-building aspects

22. Capacity-building is an essential component of the Project and the area that causes greatest concern and risks (see above under **Sustainability**).

Innovativeness

23. Some of the proposed activities are highly innovative, such as those involved in the collaborative management of protected areas.

Conclusions

24. This is an ambitious, large-scale project that addresses important issues and involves a remarkably wide range of activities – technical, scientific, social, and economic. If successfully implemented it will have a substantial impact on the way conservation and sustainable use of the biodiversity of the Central Sahara region and desert biomes is carried out. The GOA will provide strong support and substantial financial commitment.

25. It is not without substantial risks because of its scale and complexity, its dependence on a high degree of capacity building and support, and its vulnerability to external factors. I have some doubts about the ability to put in place systems for the successful implementation of some of the activities (especially those involved in achieving output 7) in the time-scale indicated. With these reservations I recommend it for approval.

23 September 2001

Response to STAP Comments

1. *Paragraph 6.* The scarcity of biodiversity experts and protected area planners in Algeria has been clearly recognized and is reflected in the considerable international technical assistance foreseen to support the project. This technical input would be more detailed in the project document. International technical assistance will be mobilized during project implementation to assist 1) in daily project management through a Chief Technical Advisor with long-term experience in biodiversity conservation and natural resource management; 2) basic ecological inventories and biodiversity monitoring; 3) collaborative management and sustainable alternative livelihoods; 4) sustainable ecotourism; 5) IEC, etc.

2. *Paragraph 7.* The two points raised - concerning eco-geographic studies and recovery plans targeting selected species of plants and animals - have been addressed. The relevant paragraphs in the main text of the brief and the logical framework have been revised accordingly and proposed modifications duly incorporated (see paragraphs 39, 40 and Annex C).

3. *Paragraphs 8 and 25.* It should be emphasized that the diverse initiatives foreseen under output 7 are small-scale demonstration activities, which have been identified through the participatory approach underpinning the PDF-B. The activities identified should provide a suitable entry point for the project to engage the local communities, while effectively complementing the collaborative management process, which is at the heart of the public participation strategy of the future project. As outlined in the brief, such a process will be strongly based on 'learning by doing' and the proposed 'micro-projects' will be further developed, tested and finely adapted prior to their implementation. It should also be underlined that, except for incremental technical assistance, no funds for output 7 will be appropriated from the GEF. Financial resources for the implementation of this output have already been secured from UNDP and the GOA and further co-financing is anticipated from other donors.

4. On the list of medicinal plants for cultivation, economically promising species with potential for cultivation have been proposed by the PDF-B national consultants after extensive consultations with local stakeholders in and around the villages of Idelis, Tazrouk, Tahifet, Tehrhananet and in Tit, Abalessa, Enamgal, Amsal, Ein Gezam, and Ein Zawatin. The cultivation and marketing feasibility of this component would be assessed during the first phase of the project and recommendations will be tied to the adaptive and collaborative management objective of the project.

Paragraph 25. In the case of the Tassili Ahaggar project, the inevitable risks associated with any large-scale and complex biodiversity conservation initiative have been effectively minimized. According to the phased approach proposed for this intervention, a mandatory independent evaluation will occur after 3 years, its results being critical for graduation from the first to the second phase of the project and the release of further funds.

ANNEX 15 PUBLIC PARTICIPATION ARRANGEMENTS

An estimated 150,000 people, about 85% of the combined population of the wilayas of Illizi and Tamanrasset reside within the boundaries of the protected areas. About 134,000 inhabitants are concentrated in urban areas and smaller administrative centres while the remaining 16,000 - 17,000 mainly nomadic Tuareg live in the vast desert regions of the Tassili-Ahaggar. Tuareg confederations based in the two wilayas have strong economic links throughout the central Saharan region, and regular movements have been documented towards neighbouring Niger, Mali and Libya.

During the project preparation period, UNDP-GEF and the Government of Algeria, under the co-ordination of a cross-sectoral Steering Committee, have initiated a set of stakeholder consultations engaging key representatives of local NGOs and civil society - including more than 100 local associations and cooperatives – and selected members of relevant wilaya administrative and technical services. All main stakeholders were involved in the project formulation workshop held in Tamanrasset during July 2000 and the national validation workshop held at Illizi during January 2001.

In the project area, the management of biodiversity has traditionally relied on the highly flexible normative framework provided by Tuareg institutions with jurisdiction over specific territories and usufruct rights covering grazing, hunting, agriculture and other forms of biodiversity utilisation. The public participation strategy of the project will thus concentrate on the creation and strengthening of such conservation-enabling institutions conferring strong authority and status on legally sanctioned communal natural resource regimes (see output 2).

Public participation efforts will focus initially on the main urban centres and the six key biodiversity sites identified during the course of the PDF-B as suitable areas for the demonstration of management techniques to be replicated and applied on a wider scale in the Tassili-Ahaggar region (see schematic map, Annex E).

Based on the outcome of the consultative process initiated during the project formulation period, the public participation strategy underpinning the project may be outlined as follows:

- ✍ the project will support a processual approach, strongly based on ‘learning by doing’, which will be advanced through an interdisciplinary collaborative management (CM) team that will assist in the negotiation of CM agreements according to procedures detailed under output 2⁹;
- ✍ key stakeholders will be provided with extensive training and general orientation in conservation enabling management methods through the services of participatory

⁹ Key steps in developing a collaborative management framework include (see output 2): (i) identification of territory or set of resources; (ii) evaluation of the range of functions and sustainable uses provided; (iii) stakeholder analysis; (iv) determination of functions, responsibilities, benefits and rights of stakeholders; (v) formulation of management priorities and/or site management plan; (vi) establishment of conflict-resolution procedures for implementing collective decisions; (vii) agreement on specific rules for monitoring, evaluating and reviewing the partnership.

- appraisal specialists and experienced facilitators - members of the collaborative management (CM) team established by the project;
- ✍ establishment and organisation of local management committees with robust conflict mediation systems, low transaction costs and rooted in existing social networks, such as those administered by community elders;
 - ✍ summoning of regular intra-community forums, bringing together community members and representatives from community-based groups in order to facilitate informal exchanges and resolve outstanding problems;
 - ✍ convening of periodic general meetings of representatives from different management committees in order to share management experiences and ensure that management operations are co-ordinated;
 - ✍ engage local NGOs with a well-proven track record in biodiversity conservation to support selected project activities, so as to build advocacy functions and a long-term twinning relationship with the PAMUs;
 - ✍ identify and support selected representatives from local management committees and NGOs as members of the Protected Area Management Board (PAMB) including all key stakeholders in the management of the protected areas;
 - ✍ establish and support a cross-sectoral Steering Committee to oversee project operations, approve annual work-plans and progress reports and ensure implementation of the recommendations of independent evaluations;
 - ✍ support a sustained awareness campaign based on a wide range of Information, Education, Communication (IEC) tools and activities aimed at imparting conservation values to local communities and sensitising them to conservation-friendly land use strategies (see output 4);
 - ✍ ensure that participatory monitoring techniques are employed to track social processes that have a bearing on conservation outcomes, through the systematic involvement of monitors from local communities in M&E activities (see output 5);
 - ✍ develop and operationalise policies and management plans for the two National Parks based on innovative legal procedures allowing the PAMU to enter into effective collaborative management agreements with other parties such as stakeholder communities and the private sector and thereby incorporating the adaptive management framework underpinning the CM process and derived agreements (output 6);
 - ✍ encourage both the public and private sectors to innovate and incorporate emerging best practices from biodiversity conservation initiatives through a flexible, non-sectoral, sustainable livelihood approach, supporting newly emerging local government bodies and NGOs stemming from the ongoing twin processes of decentralisation and democratisation (output 7).

ANNEX 16. EXTENDED SOCIO-ECONOMIC PROFILE

The wilaya of Tamenrasset and Illizi are extremely sparsely populated, with around 170,000 people in 841,200 Km² (or around one person per 5 Km²). Around 90% of the population lives in the urban centers of the two wilaya, and the majority in the two administrative centers of Illizi and Tamenrasset. The two wilaya are not rich in natural resources. They have few mineral resources, with the exception of small oil deposits near Insalah, gold deposits on the southern Algerian border at Amesnessa and Tirek, and uranium deposits at Tamenrasset. The former two are both outside of the two National Parks, and there are currently no plans to exploit the uranium deposits. Agricultural potential in the two wilaya is also extremely limited because of the very low rainfall and poor soil fertility. Traditionally livelihoods have revolved around extensive nomadic pastoralism, small gardens around water sources, and the caravan trade. Since independence the GoA has established a presence in the two wilaya to provide economic development particularly for the indigenous nomadic Tuareg, and to maintain security along borders with Libya, Mali and Niger.

Today the main forms of economic activity in two wilaya are: government administrative employment, (no data on security forces) associated dependent small businesses, and agriculture. Almost 40% of the workforce in both wilaya, are government administrative employees. There influx is also the main cause of population expansion in two wilaya, by around 130,000 from 1966 to 1998. Local small businesses accounting for 20% of the workforce, including retail, transport, restaurant, hotel and engineering enterprises are heavily dependent on administrative salaries and government contracts for their business.

Agriculture is the second most important economic sector, employing just under 30% of the work force. Arable land covers just over 27, 000 hectares or less than 0.01% of surface area of the two wilaya, over 60% of which is located near Tamenrasset¹⁰ and Illizi. Crops include cereals, vegetables, root crops, and fodder, are for home consumption and local markets. Cultivated areas include small home gardens irrigated by surface and near-surface water using traditional irrigation technology; cooperatively managed gardens often irrigated from deeper wells; and larger-scale more intensively managed farms, irrigated from deeper aquifers and using modern pivot-irrigation technology. Around 150,000 head of camel, goat and sheep are estimated to exist in the two wilaya. The goats and sheep are mostly managed under a semi-nomadic regime, around the urban peripheries and in tribal "resident areas", where diet can be supplemented with fodder and feed concentrate. Meat, skins and milk are consumed by the family or sold locally. Men herd the camels, ranging as far as Niger, Mali and Libya in search of pasture and water. Camels are rarely slaughtered, as they represent the Tuaregs' wealth. They are most valued for transport (people and trade goods), milk, camel hair and for trade. With urbanization it has become increasingly common for sedentary owners to hire shepherds to manage their camel herds.

The tourist industry has become unimportant to the local economy with the recent decline of visitor numbers. In 1999, a recorded 500 visitors to the two wilaya provided

¹⁰ In the case of Tamenrasset the cultivated area is located in a 150km radius around the town.

employment for less than 1% of the workforce. A legacy of enterprises do remain from prior to 1993, when the sector was buoyant. Today just over 70 tourist agencies, a number of hotels, restaurants and craftsman have survived in part by diversifying their business, others have closed. The re-emergence of tourist activity is however anticipated, primarily because of the archeological and cultural richness in the two parks, the excellent wilderness experience the two parks offer, and the stable security situation in the south of Algeria. Although the GoA is only investing around USD 40,000 annually to promote tourism, direct flights from Europe to Southern Algeria are once again available, and French, German, Italian, and Spanish tour operators are organizing trips there. A slow build-up of activity is expected.

Details of the GoA's planned investments are documented in an Annex B, and are shown on map xxx, however a brief overview follows. The GoA will maintain investment in health, education, municipal services, poverty alleviation schemes and other basic social services in the wilaya. New investment has been earmarked for road maintenance and extension, new telecommunication infrastructure and airport improvements. This is expected to increase administrative capability and encourage private sector investment, particularly in the tourist and agriculture sectors. In the agricultural sector the GoA's priority is to encourage private investment. Management of agricultural cooperatives has been privatized, and extension services are being strengthened. However public investment is now limited primarily to irrigation, wind breaks and afforestation, while subsidies are limited to tax exemption, per head payments for the birth of camel calves, and a range of support to small farmers to alleviate poverty. This policy has most affected cooperatives. Some cooperatives have thrived from the change in management, while others have since closed down. However in new areas prepared with public money to attract private enterprise there is only a 35% occupancy rate, in part indicating the marginal economic potential of more intensive large-scale irrigated agriculture in the two wilaya.

Changes in pastoralism have been more gradual, and the reasons for them more difficult to determine. Between 1987 and 1999 there has been an absolute decline in head of sheep and goats in the two wilaya by 35% and 11% respectively, while head of camel have increased by 22%. This is in part due to GoA's reduced support for feedstuff, on which sheep and goats partly depend, while a per head subsidy for new-borne camel calves has boosted the profitability of herding. The timing of migratory patterns over the Algerian border with statistical surveys, also effects the number camels recorded. A more important trend has been the change in herding practices in open rangeland. The GoA owns all land in the Sahara but recognizes traditional tribal rangeland usufruct rights. None-the-less the authority of tribes to uphold their traditional rights has been heavily eroded, with immigration by non-indigenous people to the area and an official parallel judicial system, ill-equipped to uphold verbal agreements. Anecdotal evidence suggests a shift towards open access land tenure rules, bringing the most productive pasture, which also tend to be biologically rich and diverse, under increasing pressure from herders without traditional rights. The tribal practices of regulating the temporal and spatial intensity of grazing in valuable pasture has thus become difficult to maintain, and the sustainability of rangeland management in these areas is now questionable. While the GoA has been reluctant to arbitrate usufruct disputes, they are now looking at co-management arrangements between the park authorities and rangeland users as a means to arbitrate agreements.

Arrangements would also need to extend to other rangeland usufruct such as water abstraction and fuel wood collection. The erosion of traditional usufruct rules is particularly evident around urban areas where there are higher concentrations of non-indigenous people. However Tuareg culture is evolving as they come into contact with, and in-some cases assimilated into, the modern Algerian socio-economy, and it is changing rangeland etiquette far beyond the urban periphery.