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IMPLEMENTATION COMPLETION AND RESULTS REPORT

TF 013636

ON A

LOAN/CREDIT/GRANT

IN THE AMOUNT OF USD 4.27 MILLION

TO THE

Republic of Tunisia

FOR THE

Tunisia: Ecotourism and Conservation of Desert Biodiversity
9 September 2019

Environment & Natural Resources Global Practice
Middle East And North Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective {Aug 10, 2019})

Currency Unit = Tunisian Dinar (TND)

2.824= USD

0.344 USD= TND 1

FISCAL YEAR

July 1 - June 30

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ABBREVIATIONS AND ACRONYMS

AP	Action Plan
CPS	Country Partnership Framework
CRDA	Regional Commission for Agricultural Development
CSO	Civil Society Organization
DGEQV	General Directorate for Environment and Quality of Life
DGF	General Direction of Forests
ERR	Economic Rate of Return
ESMF	Environmental and Social Management Framework
GEB	Global Environmental Benefit
GEF	Global Environment Facility
GoT	Government of Tunisia
INRM	Integrated Natural Resource Management
ISN	Interim Strategic Note
LDN	Land Degradation Neutrality
MALE	Ministry of Local Affairs and Environment
MENA	Middle East and North Africa
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MoT	Ministry of Tourism
M&E	Monitoring and Evaluation
NGO	Nongovernmental organization
NP	National Park
NPV	Net Present Value
ONTT	Authority for Tunisian Tourism
OP	Operational Policy
PA	Protected Area
PCU	Project Coordination Unit
PDO	Project Development Objective
PLR	Performance and Learning Review
PV	Present Value
SLM	Sustainable Land Management
WB	World Bank

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DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P120561	Tunisia: Ecotourism and Conservation of Desert Biodiversity
Country	Financing Instrument
Tunisia	Investment Project Financing
Original EA Category	Revised EA Category
Partial Assessment (B)	Partial Assessment (B)

Organizations

Borrower	Implementing Agency
Ministry of Local affairs and Environment	Ministry of Local Affairs and Environment

Project Development Objective (PDO)

Original PDO

The Project Development Objective is to contribute to the conservation of desert biodiversity in the three targeted National Parks.

PDO as stated in the legal agreement

As stated in the Grant Agreement (March 5th, 2013), the original Project Development Objective is to contribute to the conservation of desert biodiversity in the three Recipient targeted national parks

**FINANCING**

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
World Bank Financing			
TF-13636	4,270,000	4,270,000	4,270,000
Total	4,270,000	4,270,000	4,270,000
Non-World Bank Financing			
Borrower/Recipient	4,780,000	3,587,710	3,587,710
Total	4,780,000	3,587,710	3,587,710
Total Project Cost	9,050,000	7,857,710	7,857,710

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
22-Jan-2013	22-May-2013	01-Dec-2015	31-Jul-2018	31-May-2019

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
29-May-2017	2.32	Change in Implementing Agency Change in Results Framework Reallocation between Disbursement Categories
25-May-2018	3.24	Change in Loan Closing Date(s)
13-Jan-2019	3.92	Change in Loan Closing Date(s)

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Modest



RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	15-May-2013	Satisfactory	Satisfactory	.11
02	11-Dec-2013	Satisfactory	Satisfactory	.74
03	01-Jun-2014	Moderately Satisfactory	Moderately Satisfactory	.76
04	27-Jul-2014	Moderately Satisfactory	Moderately Satisfactory	.76
05	20-Jan-2015	Moderately Unsatisfactory	Moderately Unsatisfactory	.76
06	21-Jul-2015	Moderately Unsatisfactory	Moderately Unsatisfactory	1.01
07	11-Jan-2016	Moderately Unsatisfactory	Moderately Unsatisfactory	1.17
08	29-Jun-2016	Moderately Satisfactory	Moderately Satisfactory	1.36
09	15-May-2017	Moderately Satisfactory	Satisfactory	2.04
10	14-May-2018	Moderately Satisfactory	Satisfactory	3.38
11	30-Nov-2018	Satisfactory	Satisfactory	3.88

SECTORS AND THEMES

Sectors

Major Sector/Sector (%)

Agriculture, Fishing and Forestry 80

Public Administration - Agriculture, Fishing & Forestry 50

Other Agriculture, Fishing and Forestry 30

Social Protection 20

Social Protection 20

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)



Private Sector Development	108
Jobs	100
Enterprise Development	8
MSME Development	8
Finance	8
Financial Infrastructure and Access	8
MSME Finance	8
Social Development and Protection	15
Social Inclusion	15
Participation and Civic Engagement	15
Urban and Rural Development	20
Rural Development	20
Land Administration and Management	20
Environment and Natural Resource Management	50
Renewable Natural Resources Asset Management	30
Biodiversity	30
Environmental policies and institutions	20

ADM STAFF

Role	At Approval	At ICR
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I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Context

1. The desert ecosystems in Tunisia contain unique plant, animal and human communities that have adapted to survive in these extreme and fragile environments. Far from being arid lands, Tunisian deserts appear to have significant biological, economic and cultural resources. However, deserts are greatly threatened as never before by climate change, over-exploitation of groundwater, salinization, loss of biodiversity, and loss of wildlife.
2. At the time of approval of the Project, the common perception was that Tunisia's desert ecosystems could have a high potential for addressing rural economic diversification and employment creation needs through an ecotourism model linked with biodiversity protection in managed PAs. Tunisia's arid ecosystems provided an opportunity for sustainable tourism that is specific to deserts, taking into account their special characteristics, their fragility, and their diversity of natural, human, and cultural resources. The tourism sector was already playing an important role in the Tunisian economy, particularly in terms of employment generation. Tunisia received over 7 million tourists per year and, in 2008, the sector contributed 7 percent of GDP, generating 17 percent of total foreign exchange revenues and employing around 380,000 people, representing around 10 percent of the active population. However, large potential for tourism was not fully realized. *Protected areas* (PAs) had been created in the interior of the country, but, for several reasons (including low capacity of tour operators, unclear administrative and regulatory procedures and incentive systems, weak coordination between the different regulatory authorities, and a lack of financing), these areas were scarcely utilized and were still relatively underdeveloped for visitors. PAs lacked enforcement and management capacity, leading to biodiversity vulnerability even within the PA boundaries. Relationships between local communities and PAs were increasingly deteriorating. Furthermore, the legal status of older PAs did not permit the collection of entrance fees and even for new PAs the fees are very low-even for foreigners-thus limiting revenue-generating possibilities or sustainable financing of these PAs and conservation of biodiversity.
3. A study of the *Ministry of Environment (MoE)* conducted in 2009, had mapped potential *ecotourism circuit* built around PAs and linking in the rich cultural and historical sites of desert areas. It was suggested that infrastructure investments and improved management, with the full participation of adjacent communities, could contribute significantly to improving livelihoods in desert areas and conserving sensitive biodiversity. The *Government of Tunisia (GoT)* was making plans to diversify the country's tourism products in order to continue to deliver sustainable growth and job creation in the sector. In the formulation process for the proposed *2016 National Tourism Strategy*, the Ministry of Tourism (MoT) prepared a comprehensive diagnostic of the tourism sector, which resulted in the identification of key strengths and weaknesses. Moreover, the *National Forest Strategy (2015-2024)* introduced new different aspects of ecotourism in Tunisia.
4. For the Bank, the rationale of the Project was to provide opportunities at small scale to promote both traditional and innovative land and natural resource management practices within adjacent agro-ecosystems, thus preserving the adaptive response capacity of local communities, and preventing further degradation of fragile lands in targeted parks. There was a high unemployment rate especially among the younger labor force and large disparities between the more affluent coastal areas and the poorer interior regions of the country and the fact that the bulk of tourism activity and capacity was directed towards "all inclusive" high-volume, low-value tourism in coastal areas, making little or no use of



the significant cultural, historical, and natural resources that the interior of the country has to offer, and with few linkages to the local communities and this was the reason this had to be addressed so as to provide ecosystem based tourism and incentives for local communities that will reduce pressure on natural resources and conserve biodiversity.

- The project was in line with the GEF-4 strategic objectives on Biodiversity and Land degradation
- The Project was in line with the World Bank Group's Tunisia 2013-2014 Interim Strategy Note (ISN), which aimed at reinforcing governance and inclusion and fostering economic growth based on the creation of sustainable jobs in the medium-term. The three priority areas for the ISN were: (i) laying the foundations for renewed sustainable growth and job creation; (ii) promoting social and economic inclusion; and (iii) strengthening governance: voice, transparency and accountability.

Under the *Governance and Opportunity Development Policy Loan* (P12825 1) signed in June 2011, one of the reform measures identified was the improvement of services to businesses and citizens through the simplification of formalities and improvement of transparency (the tourism sector received particular attention).

- The Project was also in line with the regional *GEF Integrated Natural Resources Management in the Middle East and North Africa Region Program (MENARID)*, whose overall objective was to promote integrated natural resource management in the production landscapes of the MENA region and improve the economic and social well-being of the targeted communities through the restoration and maintenance of ecosystem functions and productivity; and the *MENA-DELP Program* (P130343) whose objective was to strengthen cooperation among selected organizations of beneficiary countries in areas of sustainable management of desert ecosystems.

Theory of Change (Results Chain)

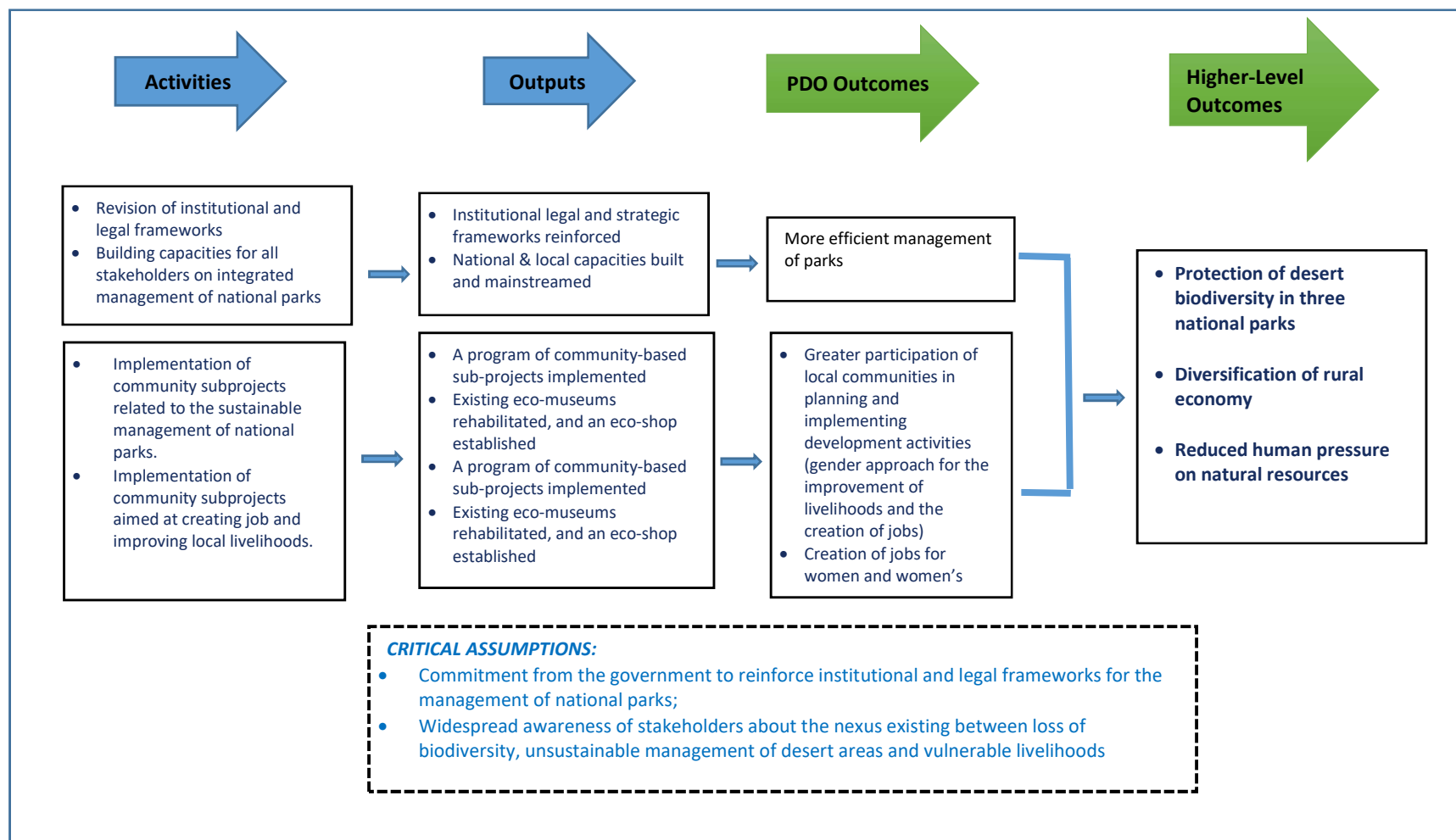
5. The project's theory of change (TOC) was developed for the Implementation Completion and Results Report (ICR) (see Figure 1) and is an analytical synthesis found in project preparation documents and through relevant stakeholder consultation. At the time of the design, the Theory of change (see Figure 1) was based on two main critical assumptions: (i) the commitment from the government to reinforce institutional and legal frameworks for the management of national parks; and (ii) the widespread awareness of all stakeholders about the nexus existing between loss of biodiversity, unsustainable management of desert areas and vulnerable livelihoods.

6. In order to address the loss of biodiversity in national parks and to create enabling conditions for national parks management, sustainable land management scale-up and ecotourism development, the project aimed at : reinforcing the national institutional legal and strategic framework for the management of national parks and developing an ecotourism marketing strategy to promote the national parks; and strengthening the capacities of national and local institutions in the area of sustainable land management and biodiversity conservation.

7. At the same time, the implementation of an integrated natural resource management approach was piloted in three targeted national parks and their adjacent areas in Tunisia's south- and central-west desert areas: Dghoumes NP the Tozeur Governorate, Jbil NP in the Kebili Governorate, and Bouhedma NP in the Sidi Bouzid and Gafsa Governorates (these parks were selected because they represented the variety of Tunisian parks). Following a baseline study, the following criteria were followed to select the three NPs: (i) unique and specific biodiversity; (ii) representativity of desert and arid ecosystems; (iii) potential for eco-tourism development; (iv) location in desert and Saharan tourist circuits already exploited.



Figure 1: Results Chain





Project Development Objectives (PDOs)

8. As stated in the Grant Agreement (March 5th, 2013), the original Project Development Objective is to contribute to the conservation of desert biodiversity in three recipient targeted national parks.

Key Expected Outcomes and Outcome Indicators

9. The Project's proposed results indicators for monitoring and evaluation include:
- (i) Direct project beneficiaries (target 2,000), of which female and youth (target: 65%)
 - (ii) Created jobs (target:160); and
 - (iii) Park management efficiency score (target: 244).

Components

10. The Project consisted of three components:

11. *Component 1: Promoting Enabling Conditions for Protected Areas Management, Sustainable Land Management Scale-up and Ecotourism Development (Total: USD 2.71 million; GEF USD 1.40 million, GoT USD 1.31 million).*

- (i) Reinforcing the institutional legal and strategic framework for the management of the Recipient's national parks by: (a) revising the national legal and institutional framework regarding management of national parks and ecotourism development, as well as the national classification of ecotourism management; and (b) developing an international, national and local ecotourism marketing strategy to promote the National Parks;
- (ii) Building and mainstreaming national and local capacities in sustainable land management and biodiversity conservation using an integrated natural resource management approach by: (a) strengthening the technical capacity for the management of the national parks (b) reinforcing Project diverse stakeholders' respective capacities
- (iii) Establishing and running the monitoring and evaluation system for the Project through the provision of goods, consultants' services and Training.

12. *Component 2: Supporting the Implementation of Integrated Natural Resource Management in the National Parks and their Adjacent Areas (Total: USD 5.34 million: GEF USD 2.37 million, GoT USD 2.61 million, Beneficiary USD 0.36 million).*

13. Implementing priority investments identified in the management plans of the national parks, through the provision of goods and civil works and financing priority works.

- (i) Implementing a program of community-based sub-projects aiming at improving the management of the national parks and adjacent areas; and a program of microenterprises-based sub-projects aiming at improving the ecotourism, all through the provision of civil works, goods and consultants' services in relation thereto
- (ii) Implementing the rehabilitation of the existing eco-museum and the establishment of an eco-shop in existing structures in each of the natural parks, through the provision of goods, consultants' services and civil works.

14. *Component 3: Project management (Total: USD 0.70 million; GEF USD 0.2 million, GoT: USD 0.5 million).*

15. This component supported the establishment and operationalization of the Project Coordination Unit (PCU) within the General Directorate for Environment and Quality of Life (DGEQV), through the provision of goods, consultant services (training, study tours), and incremental operating costs associated with project management and implementation, including procurement and financial management.



B. SIGNIFICANT CHANGES DURING IMPLEMENTATION

Revised PDOs and Outcome Targets

16. The PDO has not been revised during implementation.

Revised PDO Indicators

17. Two additional PDO results indicators were added in order to better reflect additional biodiversity and social concerns: (i) "Number of local species reintroduced in targeted national parks" (target: 3); and (ii) "Decline in communities Parks conflicts" (target: 0).

Revised Components

18. The components have not been revised during implementation.

Other Changes

19. The project was firstly restructured on May 23rd, 2017 (the closing date of the Project was firstly extended from July 31st, 2018 to January 31st, 2019) in order to change the result framework and the inclusion of a new GEO indicator on the declining in community park conflicts), as well as to reflect the new name of the implementing agency (thereafter called Ministry of Local Affairs and the Environment); and then it was again in January 2019, it was extended to May 31st, 2019:

20. The main reason of this restructuring was to make best use of the financial surplus generated by the Tunisian Dinar devaluation and the exemption from payment of VAT;

- Because of the restructuring, the project has adopted a new distribution of funds by grant expenditure category and by project component.
- An *Action Plan* (AP) was agreed with the client covering the requested extension period: the AP aimed at successfully completing not only all the remaining activities, but also undertaking new complementary activities in the three parks (such as those related to some new civil works related to rehabilitation of the infrastructure of the three parks; solar electrification of Dghoumes; and acquisition of new equipment) in order to have harmonized and coherent achievements.

Rationale for Changes and Their Implication on the Original Theory of Change

21. The changes had no impact on the theory of change.

I. OUTCOME

A. RELEVANCE OF PDOs

Assessment of Relevance of PDOs and Rating

Rating: High

22. Project development objectives have remained highly relevant because the range of activities planned and implemented under the project (in the areas of alternative livelihoods, SLM techniques, park management, etc.) are likely to contribute to conservation of desert biodiversity in three recipient targeted national parks.



23. Most of all, at the time of Project closure, the Project's development objective is fully consistent with the current *Country Partnership Framework (2016-2020) (CPF)*, re-validated and extended through the Performance and Learning Review (PLR). More specifically, the Project supported the following pillars of the CPF/PLR:

- **Pillar 1, Good governance**, which includes fighting corruption and easing administrative barriers to economic participation, to increase opportunities for success for all citizens;
- **Pillar 3, Promoting human development and social inclusion**, which emphasizes quality education, women's participation in economic and political activity, closing gender gaps and increasing women's economic opportunities, improved health outcomes, and a state-of-the-art social protection.
- **Pillar 4, Tackling regional disparities** and achieving the ambitions of internal regions, which builds economic infrastructure and supports entrepreneurship in lagging regions; and
- **Pillar 5: Promoting green growth for sustainable development**, which aims to ensure the sound utilization of natural resources, with emphasis on rationalizing water and energy consumption while promoting modern agricultural systems that guarantee food security.

24. In addition, the relevance of the PDO has been validated by new national strategies and plans, particularly the *National Forest Strategy (2015-2024)*, which provides for the introduction of different aspects of ecotourism in Tunisia, and by the key principles of ecotourism enacted by the General Directorate of Forests (DGF), which emphasizes co-management programs and concession of protected areas.

25. Furthermore, the PDO is consistent with:

- The Five-year plan launched in 2016 (called *TUNISIA 2020*), which, by defining a new vision of social and economic development, aims to have a significant impact on the agriculture sector and rural development, with improved incomes for Tunisian farmers income, new jobs in rural areas and improved national food security.¹
- The Tunisia's *Intended National Determined Contributions (NDCs)* to the United Nations Framework Convention on Climate Change (in the area of mitigation, the Tunisian contribution is to reduce carbon intensity by 41 per cent compared to 2010).
- *The National Strategy for the Green Economy*, particularly with regard to the efficient agricultural development in the use of natural resources and the promotion of sustainable tourism;
- Recent legal texts concerning eco-tourism and background studies aimed at defining the Tunisian strategy for eco-tourism, including national guidelines specifically aimed to improve the tourism industry (in particular the so-called *Hotel Improvement Program (PMNH)* on the quality of services).

B. ACHIEVEMENT OF PDOs (EFFICACY)

Assessment of Achievement of Each Objective/Outcome

26. The project achieved stated development objectives and met or exceeded related outcome targets.

27. Under the Management Plans of the three PAs (*Plans d'Aménagement et de Gestion, PAG*), which are comprehensive planning tools elaborated through the participation of all local stakeholders, the project supported two types of eligible subprojects, selected according to criteria primarily related to the acceptability by local population and their potential impact on the environment:

¹ *Tunisia 2020. Road to Inclusion, Sustainability and Efficiency.*



(i) **Non-profit subprojects** aimed at protecting the environment, natural resources and desert biodiversity, the fight against land degradation. Individual grants amounting at between \$300-600 were provided to 42 groups of vulnerable people and environmental associations. About 50% of beneficiaries was made up of young women and men;

(ii) **Profit sub-projects** aimed at supporting different income-generating activities of 197 individuals (of which 43 women, equivalent to 22% of total). About 70% of the cost of these subprojects was assured by the Project and the rest (30%) by the beneficiaries. Seventeen organizations of civil society were able to identify, plan and implement subprojects related to the environment and sustainable development and different income-generating activities, in the areas of: ecotourism, handicrafts, irrigated crops, fruit trees, olive trees, petty trade, carpentry, hairdressing, catering services for visitors to the park and tourists, apiculture and animal husbandry. It is estimated that these subprojects created a total of about 100 jobs, including 20 jobs for women. These sub-projects were very profitable (in 2017 they generated an average income equivalent to about 1.5\$/day, and a maximum of about 1.9\$/day (the minimum guaranteed wage being 1.48\$/day).

28. Apart from helping to improve the livelihoods of people living in parks and surrounding areas, these subprojects have also had the role of stimulating local people's interest in protecting their environment and reducing human pressure on natural resources through a sustainable plan of alternative economic activities.

29. The PDO achievement is rated as **Substantial**. It is assessed on the basis of the achievement of its two main outcomes as follows:²

A) Greater participation of men and women in planning and implementing development activities (gender approach for the improvement of local livelihoods and the creation of jobs)

Direct project beneficiaries (number 1,805), of which female and youth (percentage 65%);

- Achieved at completion. 65 percent of female beneficiaries. Target achieved.
- Support to sustainable livelihoods was achieved through a participatory approach by successfully building confidence within the communities, thus developing a trust that their concerns were being seriously addressed in developing livelihood initiatives.
- Beneficiaries included: members of local communities (including community-based organizations, associations and cooperatives, women's organizations, youth organizations, and environment-related NGOs) and representatives of national and regional institutions (such as, the DGEQV, the Regional Commissions for Agricultural Development (CRDA), the General Directorate of Forestry (DGF) and the National Authority for Tunisian Tourism (ONTT).
- About 40 different institutions have been involved in the organization of a range of activities and 378 people participated as volunteers in activities organized by civil society associations.

Created jobs: 472

- Achieved at completion: 472 cumulative jobs in the three parks. Target fully achieved, beyond expectations. Figures include 194 permanent jobs for direct beneficiaries and 278 seasonal jobs (the latter are explained by the seasonality of some agricultural activities). The number of actual jobs is greater than those expected (the devaluation of TN allowed additional unplanned investments in the three parks).

² See Annex 1 for a more detailed presentation of the results of the activities (by results and intermediate outcomes).



- These jobs employed, over the duration of the project, a total of 637 people has been permanently or seasonally employed in the three parks (including 284 in Bouhedma, 250 in Dghoumes, and 103 in Jbil).
- Furthermore, 197 members of the households, whose head has a permanent job, have also been involved in activities (such as feeding and watering animals, animal husbandry activities, agricultural activities, etc.).
- ➔ By diversifying local livelihoods, job creation contributed to reducing pressure on desert resources and protecting the biodiversity.
- ➔ Profit subprojects are likely to be sustained in the near future (after the closure of the project) because of their profitability. About 35% of beneficiaries of these subprojects reinvested some or all of their incomes to expand their business.

B) More efficient management of the three targeted national parks

Number of local species reintroduced in targeted national parks: 3

- End target: 3 local species (gazelles, addaxes and ostriches). In the three national parks, the project financed the development of enclosures to acclimatize gazelles, addaxes and ostriches; watering facilities for wild fauna; small earth dams (which attracted different species of birds and favored the nesting of a pair of migratory birds of the "Tadone Casarca" type - *Tadorna ferruginea*). This is a new Results indicator aimed at tracking a new activity (after the restructuring)
- ➔ The introduction of new species contributed to protecting the desert biodiversity.

Park management efficiency score.

- In compliance with GEF Guidance Note for simple and rapid site assessments, different parameters have been used to track efficiency, such as the following: (i) existence of a management plan and related priority investments (in compliance with the new national legislation); (ii) acquisition of equipment (such as uniforms for eco-guards, kits for eco-guides, camping and communication equipment, veterinary equipment, eco-museum equipment, rolling stock, etc.) – this also included road signs, construction and rehabilitation of reception kiosks, guard posts, accommodation for staff and observation towers, rehabilitation of the trail, clearing of trails, as well as other works (e.g., gabions); and (iii) activities aimed at preserving biodiversity and ecological and cultural goods.
- Achieved at completion: 65 (in Dghoumes); 84 (Bouhedma); and 75 (Jbil). Fully achieved. The achievement indicates the good coordination and the involvement of the local population, on one hand, and the diversification of the income sources of the surrounding communities, on the other hand. These factors reduced anthropogenic pressures on natural resources and created sustainable value in terms of efficiency in park management. A specific study has been conducted to evaluate how the desert biodiversity in the 3 NPs was improved.
- ➔ Increase in park scores is reflected in improved management of PAs and contributed to conservation of biodiversity.
- ➔ Positive spillovers of results achieved in the three selected PAs are likely to affect non-project supported parks (namely the Sangar Jabbes, Sidi Toui in the South, and Djbel Serj, El Feidja, Ichkeul, Zembra and Zembretta in the North).
- *Decline in communities park conflicts: 0 conflicts* (new indicator introduced after the restructuring).



- Achieved at completion: no conflicts were reported in 2018 (in Bou Hedma PA, more than 40 cases had been recorded in 2011).
- ➔ The project contributed to improving the relationships between local communities and the administration and creating a climate of trust and understanding through regular consultations and awareness initiatives. This resulted in more concerted collective actions to protect the environment. This is a new Results indicator aimed at tracking a new activity (after the restructuring)

INTERMEDIATE RESULTS

30. The assessment of the efficacy of the intermediate results of the Project has been organized around two sub-objectives / outcomes. Two intermediate outcomes, and their related activities, were intended to directly achieve the PDO

Intermediate Outcome 1: Promoting enabling conditions for PA management, SLM scale up and ecotourism development (Total: USD 2.71 million; GEF USD 1.40 million, GoT USD 1.31 million).

31. Activities contributed to the promotion of enabling conditions for PA management, SLM scale up and ecotourism development (intermediate Outcome 1), and therefore to the conservation of desert biodiversity in three recipient targeted national parks (PDO).

- *Level of progress toward the revision of the legislative framework for PAs.* Achieved at completion: 3 steps related to (i) analysis of the legislative framework; (ii) organization of consultation workshops; and (iii) organization of a final workshop Fully achieved.
- *Level of progress towards the revision of the regulatory framework for ecotourism.* Achieved at completion: 2 steps related to: (i) organization of several consultation workshops on ecotourism habitat; and (ii) proposed revision of the decree on classification of ecotourism accommodation Fully achieved.
- *Level of progress towards the adoption of the integrated and participatory Management Plans by key stakeholders.* Achieved at completion: 1 related to the adoption of the integrated and participatory management plans by key stakeholders (the quality and the content of these plans were validated and adopted by local commissions) (adoption of the plans). Fully achieved.
- *Number of additional people (workers) in the parks.* Achieved at completion: 12 people (different types of workers). Fully achieved
- *Number of people trained.* Achieved at completion: 600 people (mostly members of local communities, but also 75 technical managers and 10 representatives of different institutions (study tour). Fully achieved.

Intermediate Outcome 2: Supporting the implementation of INRM in targeted NPs and their adjacent areas (Total: USD 5.34 million; GEF USD 2.37 million, GoT USD 2.61 million, Beneficiary USD 0.36 million)

32. The implementation of 226 sub-projects (under comprehensive PAG), contributed to provide support to the implementation of INRM in targeted national parks and their adjacent areas, and therefore to the conservation of desert biodiversity in three targeted national parks (PDO). There were already some positive spillovers in other national parks.

33. The development and the rehabilitation of the infrastructure of the three targeted parks (entrances to parks, tracks and access roads, fences, hydrographic network and hydrological infrastructure such as boreholes, hill lakes, construction of shelters and huts, eco-museum developments, etc.), have greatly favored the development of flora, the reappearance of several taxa considered as having disappeared, and the improvement of the vegetation cover. Interrelated activities have aimed at fighting the main direct drivers of biodiversity loss in the PAs, namely: habitat change



(loss, degradation, and fragmentation); overexploitation or unsustainable use of natural resources; and degradation of the edaphic environments.

- *Number of agreements between National Parks and Community Associations.* Achieved at completion: 12 agreements. Fully achieved, despite the small number of NGOs operating around the three targeted parks).
- *Number of subprojects supported by the Project:* Fully achieved at completion: 226 subprojects, of which 197 individual microprojects (for income-generating activities) and 29 community microprojects.
- *Number of SLM techniques.* Achieved at completion: 12 SLM techniques. Fully achieved. Several SLM techniques have been piloted and promoted in the three parks.

Justification of Overall Efficacy Rating

Rating: Substantial

34. The PDO was achieved and is attributable to the activities or actions supported by the project. For each objective or outcome, the evidence of its achievement is succinctly presented, by addressing factors directly related to the operation's activities (see a more detailed presentation in Annex 1).

C. EFFICIENCY

Assessment of Efficiency and Rating

Rating: Substantial

35. The sub-project investments were efficiently implemented. Ex ante economic analysis was neither carried out during project preparation nor at project restructuring. An ex-post economic analysis was performed and covers the 2013-2018 period although the benefits are expected to accrue beyond project end. The cost-benefit analysis was not done for selected sub-projects. Overall, two layers of benefits were quantified and valued: additional jobs and additional income generation although other benefits accruing from the project such as the preservation of ecosystem services were not quantified but could significantly increase the environmental benefits associated with the project.

36. Economic viability. The project is economically viable with a net present value (NPV) of USD 3.5 million (using a discount rate of 6%) with an economic rate of return (ERR) of 64% and a PV B/C ratio of 2.1. The project remains viable even when using 9% and 12% discount rates as the country risk justifies the utilization of higher discount rates due to inflation and political risks. Further details of the economic analysis are in Annex 4.

37. Administrative Efficiency. Overall the administrative efficacy is rated as Substantial. The project administrative efficiency was affected by endogenous (institutional and procurement inefficiencies, which were at the beginning causing delays) and exogenous (devaluation of the Tunisian Dinar) factors that were addressed during the MTR for the former and necessitated a restructuring by the end of the project for the latter that helped accommodate the extra funds available due to the devaluation of the local currency. After the MTR, procurement and fiduciary procedures improved and resources were used in an optimal manner and administrative procedures were substantially improved. The implementation ratings for environmental safeguards, social safeguards, procurement and fiduciary were overall satisfactory although procurement and fiduciary were rated unsatisfactory until their improvement following the implementation of the MTR action plan. Initial delays were overcome after the MTR, resources used efficiently (no cost overrun) and outcome/results targets were achieved.



D. JUSTIFICATION OF OVERALL OUTCOME RATING

Rating: Satisfactory

38. The justification for the overall outcome rating takes the following into account: (i) the PDO is highly relevant to both the current CPF as well as the CPF at the time of project appraisal; (ii) project efficacy was rated substantial with numerous positive outcomes; and (iii) efficiency is rated modest given the fact that, although so much was achieved on time with a limited budget, there were shortcomings and delays, especially during the first two years of implementation, which could have been avoided.

39. By combining the prior assessments of the Relevance of Objectives, Efficacy in achieving objectives, and Efficiency, the overall outcome rating is *Moderately Satisfactory*. The project achieved its objective. It would have been able to surpass all its results indicators if institutional and procurement inefficiencies had been solved at the outset. These inefficiencies affected optimal use of available resources. There is strong evidence of enhanced institutional capacities to manage national parks and of adoption of sustainable land management techniques.

E. OTHER OUTCOMES AND IMPACTS

Gender

40. Through adequate sensitization and training initiatives for both decision-makers and local communities, the operation contributed to raising awareness on the social and economic gaps existing between men and women in Tunisian rural communities. It particularly supported capacity-building initiatives for women and non-profit women-related microprojects (the total number of these micro-projects – estimated to be about 140 – was beyond expectations). Women, especially young women (16-25-year-old), benefitted from temporary jobs created under the Project, which contributed to the improvement of local livelihoods: they largely benefitted from the creation of 184 jobs related to microprojects that have created a real dynamic favorable to the protection of parks and the conservation of their biodiversity. To fully understand the importance of these achievements, it is worth pointing out that the geographic area covered by the Project, as other areas in MENA countries, is characterized by very conservative social values, especially in terms of access of women to and control of productive assets, their participation in decision-making, and employment opportunities, although the actual economic role of women in agricultural activities is high. For the three NPs, the number of women who have been indirectly involved in the management of micro-projects for profit is 143 (Bouhedma: 69, Dghoumes: 64, Jbil: 10). Women acted as true co-managers of these projects. This resulted in an increased participation of women in the effective management of microprojects. Because of their availability and the mobility of men, women acted *de facto* as guarantors of the sustainability of these family-based initiatives (according to an assessment conducted in February 2019 by the *Union tunisienne de Solidarité sociale (UTSS)*, a federation of national and regional associations).

Institutional Strengthening

41. The Project stressed the importance of capacity building initiatives for central and local institutions. General initiatives and mechanisms were aimed at consolidating synergy and collaboration between ministries and between different ministerial departments, an element which will be crucial for future operations. Local line (deconcentrated) departments, which used to work in silos, were able to progressively adopt a certain degree of integrated approach. In addition to the DGEQV, other state and non-state institutions have been involved in the progress of the Project, such as the General Directorate of Forests (DGF), the Forest regional sub-districts, and the conservators of the national parks (at the local level); representatives of the regional directorates of the Ministry of the Environment with the local population at the level of the 3 parks; and representatives of the Tourism Authority (ONTT). Furthermore, the network of local



associations was also strengthened, because the project established agreements with associations for specific activities (production of a booklet on the parks, sensitization initiatives for schools and youth centers, etc.).

Poverty Reduction and Shared Prosperity

42. The participatory approach for project implementation in targeted rural and urban areas, coupled with the introduction of sustainable land management practices, provided the communities with opportunities to increase the productivity of their lands, to improve their livelihoods and to identify alternative livelihoods. In the near future, these benefits will remain sustainable only if local communities will be supported by a network of local technical services, NGOs, and other technical partners. These aspects contributed to poverty reduction and shared prosperity.

- An external evaluation (UTSS, 2019) stressed the sustainability of micro-projects supported by the project, as they provided the target groups with regular income in addition to their productive capital: revenues varied between 2017 and 2018, but they did not affect the production capital of the majority of beneficiaries. Furthermore, some microprojects strengthened social and economic relationships between producers, because farmers sold some of their agricultural by-products (such as organic manure and wool from shearing sheep) to other farmers and craftswomen, thus benefiting from additional small incomes, while favoring larger economic spinoffs.

43. Overall, the project has created a significant dynamic in terms of local job creation (625 direct and indirect beneficiaries in 2017 and 507 beneficiaries in 2018): on a long term, only the creation of new local employment opportunities and alternative financial resources has the potential not only to directly reduce human pressure on the park's resources (reduction of illegal grazing practices and of clearing and illegal grazing of animals on park grounds), but also to contribute to poverty reduction. Moreover, by easing the tensions existing between the administration of local populations and contributing to the creation of a climate of trust and understanding between park managers and neighboring populations, the project reduced the historic tensions existing between the administration and the population.

II. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

44. The overall objectives of the Project – both in terms of PDO result and specific outcomes - were realistic, clearly formulated and ambitious at the right level. The general design of the Project was overall simple, and the components had a clear operational logic – activities of component 1 addressing supportive legislative and regulatory framework, while activities of component 2 supporting pilot initiatives at local level. Potential stakeholders and beneficiary groups were adequately identified, and public consultations were organized, although the role of participating institutions had not been clearly spelled out, opening the door to potential administrative bottlenecks. Safeguard documents identified both potential risks and mitigation measures. The design included appropriate timing and sequencing of tasks. In the PAD, the case for a participatory, decentralized and flexible approach to local development, was well argued, based on lessons learned from other operations and linked to global strategic best practices. The project background analysis was generally sound and adequate.



B. KEY FACTORS DURING IMPLEMENTATION

a) Factors subject to government and/or implementing entities control

45. The Project management Unit (PMU) was in charge for day-to-day implementation and oversight of the project. From the very beginning, the PMU focused on building good relationships with local communities, by supporting awareness initiatives and planning of comprehensive PAs Management Plans.

46. At the beginning of the implementation phase, administrative bottlenecks (mainly linked to the parallel use of national and Bank's procurement procedures) created significant delays. Completion and disbursement rates were unsatisfactory and low: at the time of the Mid-term Review (MTR) in January 2016, the overall disbursement rate was 10.6%, but even lower for the core activities of Component 1 (6.5%) and Component 2 (9.7%).

47. However, the action plan elaborated during the MTR included several actions aimed at resolving the administrative and key barriers encountered before. Thanks to the close support provided by the Bank team, and the renewed commitment of the PIU team, the agreed action plan has been implemented efficiently. More particularly, all procurement activities were successfully completed which allowed to upgrade Procurement Performance from MU to MS. The two successive extensions of the project helped the implementation of planned and additional activities, by taking into account the positive effects of the rise in the value of the dollar against the TND and the results of capacity building and planning initiatives. Therefore, in spite of a slow start, the PMU delivered through a variety of supporting activities. Evidence from the final evaluation shows that local beneficiaries appreciated the quality of the PMU involvement. The sub-projects (both the non-profit and the profit ones) targeted different stakeholders and addressed specific needs and priorities.

b) Factors subject to World Bank control

48. The Bank project team provided timely and engaged supervision of the project. The Project was led by a TTL based in Tunis, who undertook the regular bi-annual supervision missions and produced timely internal implementation supervision reports (ISR) and Aide-memoirs. The team was proactive in exploring new opportunities for project restructuring and extension of closing deadline. Furthermore, the Bank team provided generous support in technical missions, safeguards assistance, and FM assistance.

c) Factors outside the control of government and/or implementing entities

49. Some factors, outside the control of the implementing agency, affected the implementation, such as: the political and administrative instability in a post-revolution context; and macro-economic issues (such as regional disparities and high unemployment rates). Conservative cultural traditions prevented the Project from fully involving women in its activities (especially on decision-making concerning the nature and the scope of profit sub-projects).

III. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

M&E Design

50. The design of the M&E system was, at some extent, hampered by the absence of a clear presentation of the underlying 'theory of change' in the original PAD. More particularly, activities of component 1 (regulatory and legislative frameworks) were not clearly addressed in the PDO



M&E Implementation

51. The implementation of the M&E system was moderately satisfactory at the beginning and its failures were stressed at the MTR (the system, for example, should have triggered early warnings of discrepancies). However, after the MTR, data was systematically collected at local level (with the involvement of beneficiaries), analyzed by the project team in a methodological manner and validated through field visits and supervision missions. Within this context, the Project developed its own M&E system, and no longer utilized, as initially mentioned in the PAD, the multi-project M&E system used under the World Bank-financed Second Natural Resources Management Project (PGRN2). Progress reports were regularly transmitted to the World Bank and updated before supervision missions. The MTR was conducted in December 2015, and the final evaluation (by the client) in May 2019.

M&E Utilization

52. The Results Framework was eventually improved to better provide evidence of achieved outcomes. The tool was duly utilized by the PMU to collect the data and prepare comprehensive progress reports. The M&E system was thereafter used as a system to report progress against specific targets (rather than an integrated management tool). Furthermore, data was eventually used to decide on the need for a restructuring of the project (its results framework).

Justification of Overall Rating of Quality of M&E

53. The justification of overall rating of quality of M&E is *Modest*. The justification is that, although at the end it was fully operational, the system was not executed in an appropriate manner at the beginning of the project. Substantial improvements were observed after the MT and the restructuring.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

Environmental and Social Safeguards

54. Compliance with safeguard policies was satisfactory throughout the Project. The following safeguard policies were triggered:

- *Environmental Assessment (OP/BP 4.01)*: Prior to Project implementation, an ESMF was prepared acceptable to the Bank. During implementation, an ESMP was prepared for all sub-projects (which were reviewed and cleared by the Bank).
- *Natural habitats (OP/BP 4.04)*. As this policy was triggered, on-the-ground works were implemented in legally designated protected areas (such as the delineation of trails for ecotourists and/or ecolodge). The ESMF included mitigation measures to minimize or avoid damage to natural habitats.
- *Physical and Cultural Resources (OP/BP 4.11)*. This policy was triggered to address potential chance finds in the Bouhdma and Jbil National parks, as archeological relics had been discovered in both parcs, prior to the project.

55. For Environmental Assessment purposes the project was rated “Category B”, with expected significant positive environmental and social impacts. An environmental and social management framework (ESMF) has therefore been prepared to investigate the impact of the planned activities on the environment and local population.

56. Given the fact that the project was designed to support the social, environmental, and economic needs of people living in and around the national parks, the project was designed with similar goals of the safeguard policy objectives of “do no harm” and enhanced the principle of the safeguards policies by the implementation of activities that involved inclusion, community engagement and ecosystem protection and recovery. A thorough and meaningful consultation



process with the target communities was undertaken during the project preparation period, and communities were continuously engaged, informed and involved in decision making throughout the preparation and implementation periods.

57. During project implementation, there has been no report on accident/incident related to Project activities which had a significant adverse effect on the environment, on natural Habitat, cultural heritage, affected communities and the public or workers.

Social safeguards

58. The Project triggered the *Involuntary Resettlement (OP/BP 4.12)* to address potential restriction to access rights for the local communities living inside the Bouhedma National Park. A *Process Framework* was therefore prepared and disclosed prior to appraisal. Local communities inside the parc were continuously consulted, during project preparation and implementation. Their access rights were sustained, likewise their sources of livelihoods. Their cultural traditions and their living standards were sustained to pre-project levels, but the quality of their lives improved through project support to provide improved access to sources of water. There were neither physical displacement nor economic displacement.

Fiduciary issues

59. With regards to fiduciary matters, a financial management action plan had been developed and implemented and technically supported by the Bank. At the MTR, the financial performance was considered as unsatisfactory, with an overall disbursement rate of 10.6%, but even lower for the core activities of Component 1 (6.5 percent) and Component 2 (9.7 percent). Subsequently, however, the situation was significantly improved and, according to the figures of the last Implementation Status & Results Report (November 2018), the disbursement rate is 87 percent. Expressed in Tunisian Dinars, the project engaged 135 percent of the total allocated funds, due to the significant devaluation of the Tunisian Dinar against the US Dollar (1 USD = 1,5 TND at inception VS 1 USD = 3 TND at project closing). During the grace period, financial management duties have been carried out, except for (i) the audit report of 2018 that was expected by June 30, 2019, but not yet submitted, and (ii) the reimbursement of the designated account outstanding balance that is supposed to happen after the closing date May 31, 2019 but before the disbursement deadline date September 30, 2019. The overall FM rating is *satisfactory*.

C. BANK PERFORMANCE

Quality at Entry

60. **The Bank team employed due diligence in basing the Project on a solid diagnostic of national and regional development priorities and was closely aligned with the Bank's engagement strategies in the country.** The Bank team delivered a technically sound Project which was highly relevant to both World Bank policies and Government strategic priorities. The project benefitted from its integration into the regional MENA-DELP project (especially in terms of using its knowledge base). Activities of Component 1 (mainstreaming protection of biodiversity and sustainable ecotourism into national regulatory et legislative frameworks) and Component 2 (piloting sustainable investments at community level) were well combined. Environment and fiduciary aspects were well addressed. The Project was designed according to a number of correct strategic choices, and adopted a pragmatic approach integrating technical choices within existing institutional settings and available financial resources. The design reflected key environmental issues. However, the Project would have benefitted from a Theory of Change, to better link activities, outputs, PDO outcomes and higher-level outcomes, while stressing key critical assumptions.



Quality of Supervision

61. **The Bank provided timely and adequate guidance to the Project. The TTL based in the country office provided adequate technical expertise on all the relevant issues and timely overall support to the Project.** Effective implementation of activities was supported by bi-annual supervision missions, which addressed fiduciary aspects, as well as different implementation arrangements, and produced aide memoirs, with related ISRs. The composition of the team members of the supervision mission reflected the fiduciary commitment of the project with representatives from financial management, procurement and safeguards. These missions had, among other things, the role of specifically stressing environmental issues and challenges; encouraging a proactive identification of opportunities and resolution of implementation issues; proposing appropriate restructuration of results and intermediate indicators to adapt project's activities to changing conditions; and providing guidance on M&E and ensuring transition arrangements. The World Bank team played a key role in supporting the key recommendations of the MTR and ensuring a timely restructuring of the Project and its six-month extension. The team supported fruitful interactions with the MENA-DELP Program (P130343) on sharing the knowledge base and the Oasis Ecosystems and Livelihoods Project (TOELP, P132157) on community-based participatory development. Finally, the team ensured adequate transition arrangements and valorization of lessons learned (particularly within the context of a new project covering the oasis landscapes).

Justification of Overall Rating of Bank Performance

62. The overall Bank performance has been rated as *Satisfactory*.

D. RISK TO DEVELOPMENT OUTCOME

63. At the time of completion, because of the economic and political situation of the country, there are clear risks concerning the progress towards the revision of the legislative framework for PAs. The draft decree prepared under the project and submitted to legislators (proposing appropriate legal and institutional frameworks relating to protected areas including explicit provisions for sustainable ecotourism has still to be approved. Other short-term economic objectives and priorities are currently addressed at the expenses of long-term environmental, biodiversity-related benefits. Moreover, reforms favoring decentralization and local level decision-making processes have still to be completed and implemented. However, the project greatly contributed to raising the awareness of local stakeholders on environmental and biodiversity-related issues. In the absence of formal legislative texts, the Management Plans (*Plans d'Aménagement et de Gestion*) of the three PAs, whose participatory preparation was supported by the project, will be a key tool to support new dynamics at local level and the involvement of different stakeholders.

64. Furthermore, it should be pointed out that severe impacts of climate change could form a risk to the development outcomes of National Parks, and this would require additional investments in structural and non-structural measures.

65. Scaling up the pilot initiatives in other National Parks would be highly dependent on availability of financial resources and supportive organizational mechanisms. The forthcoming 53-million USD, Sustainable Management of Oasis Landscapes (P169955) will build on the achievements of the Project, the improved capacities of relevant institutions and the increased awareness of the public on environmental issues.

IV. LESSONS AND RECOMMENDATIONS

66. The Project contributed to creating an interest on desert ecosystems. Its fundamental objective is even more relevant today than ever before. However, main challenges for a post-completion phase and/or follow-up operation,



are related to ownership and sustainability, within a necessary transition from a small-scale experiment in a relatively limited area to larger programs.

67. **Biodiversity.** In spite of its limited funds and scope, the project has shown the importance of operations aimed at consistently mainstreaming sustainable biodiversity protection and use across sectors and addressing direct drivers to protect habitats and species. As biodiversity is growingly valued in Tunisia as a key driver of sustainable development, both large investments and community-based initiatives would rehabilitate grazing areas of desert ecosystems (including oasis landscapes) and sustain their biodiversity. A sustainable biodiversity conservation and use approach would find innovative ways to protect the biodiversity and generate revenues. Local production practices would be improved to be more biodiversity-positive with a focus on sectors that have significant biodiversity impacts (agriculture, tourism, and infrastructure development). Finally, technical capacity building and implementation of financial mechanisms (certification, payment for environmental services, biodiversity offsets etc.) would incentivize actors to change current practices that may be degrading biodiversity.

68. **Socioeconomic development and environmental protection.** Lessons drawn from the project (as well as from the on-going TOELP project) underline the nexus existing between a range of activities aimed at, on one hand, combatting poverty, improving local conditions, supporting alternative livelihoods, creating jobs and generating income and, on the other hand, reducing human pressure on fragile natural resources and protecting biodiversity. Currently, this is a major challenge for the forthcoming Sustainable Oasis Landscape Management Project (P169955), which reflects a significant paradigm shift by stressing the importance of linking the protection of biodiversity to socioeconomic development, in general, and sustainable job creation in niche aspects of the economy, in particular (like higher end bio production in oases), which has become a shared view at the higher political level.

69. **Sustainability.** Many activities initiated under the project are likely to remain sustainable in the near future. In this regard, local NGOs, GDAs and OCSs, which generally have good local roots, would play an increasingly role in supporting various activities, provided that they themselves receive adequate technical support. Regional and municipal authorities are likely to raise funds to support relatively inexpensive profit subprojects and to create jobs for the most vulnerable categories of people. Lessons learned from the project indicate that the careful planning and implementation of responsible ecotourism (including infrastructure development) would protect the value of natural assets and ensure the ecological sustainability, the social attractiveness and the economic profitability of the activity in the long term. New information technologies should be used to promote cultural and natural heritage, while enhancing local participation and empowerment, and to develop a quality accommodation offer, according to international standards.

70. **Global environmental benefits.** A significant positive lesson learned by the Project is the emphasis on *Global Environmental Benefits (GEBs)* by investing in techniques that improve biodiversity protection, soil fertility and agricultural productivity. A key recommendation for future similar operations would be to further stress land degradation-related issues, to improve agro-ecosystem goods and services, and to better address the vulnerability of these systems to climate change and other human-induced impacts, in order to contribute toward land degradation neutrality (LDN).

71. **Green Economy.** Tunisia is increasingly moving towards a new development model that integrates the green economy. It is emphasized the fact that the green economy must develop as part of a multidimensional integrated vision that takes into account the limited natural resources, the potential for sustainable job creation, the improved competitiveness and the added value of industries, and the reduction of regional disparities and poverty. By drawing lessons from the activities initiated at local level, future large-scale operations should integrate the key principles of the



new *2014-2020 National Strategy for the Green Economy*, particularly with regard to the following objectives: efficient agricultural development in the use of natural resources (axis 1); integrated waste management for the improvement of the living environment (axis 3); and the development of an economy less dependent on fossil fuels (axis 5); and the promotion of sustainable tourism (axis 9).

72. ***Socioeconomic knowledge base.*** Another lesson drawn from the Project is the urgent need for significantly improving the socioeconomic knowledge base, namely in order to:

- Better understand the main factors contributing to poverty of households living in arid and semi-arid areas and their vulnerability to economic and environmental crises and climate change;
- Identify in lagging rural areas livelihood needs and opportunities through gender responsive socio-economic / livelihood assessments (in terms of access to and use of human, social natural, financial and physical capital);
- Identify and analyze the main factors that in arid and semi-arid areas limit women's access to basic and higher education, participation in economic activities, access to land, and participation in community decision making processes;
- Determine key factors affecting youth unemployment in arid and semi-arid areas and identify the main causes and patterns of young people's migration and migratory behaviors;
- Identify the main civil society organizations (CSOs), particularly women and youth associations, existing in arid and semi-arid regions in order to better assess their strengths and weaknesses, constraints and potentials.



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: To contribute to the conservation of desert biodiversity in the 3 Recipient targeted national parks

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Direct project beneficiaries	Number	0.00 28-Jun-2013	1805.00 20-Nov-2018		1805.00 11-Mar-2019
Female beneficiaries	Percentage	0.00	65.00 25-Apr-2018	65.00	65.00

Comments (achievements against targets):
Achieved.

Beneficiaries included: members of local communities (including community-based organizations, associations and cooperatives, women's organizations, youth organizations, and environment-related NGOs) and representatives of national and regional institutions. 625 people



benefitted from income generating activities, 113 people from different capacity building activities. This good achievement is the result of the project good coordination, the involvement of all stakeholders and the organization of several sensitization seminars and workshops. In addition:

40 different institutions have been involved in the organization of a range of activities

378 people participated as volunteers in activities organized by civil society associations

Objective/Outcome: To contribute to the conservation of desert biodiversity in the 3 Recipient targeted national parks

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Created jobs	Number	0.00 31-Jan-2013	637.00 20-Nov-2018		637.00 11-Mar-2019
Created Jobs in Dghoumes	Number	0.00 31-Jan-2013	65.00 28-Jan-2013		250.00 22-Nov-2018
Created jobs in Bouhedma	Number	0.00	84.00		284.00



		31-Jan-2013	31-Jan-2013		22-Nov-2018
Created jobs in Jbil	Number	0.00	75.00		103.00
		31-Jan-2013	31-Jan-2013		22-Nov-2018
<p>Comments (achievements against targets):</p> <ul style="list-style-type: none"> <p>472 jobs created for a total of 637 people. Target was: 160 jobs. Achieved, exceeding expectations because of the great interest in the approach.</p> <p>194 jobs for direct beneficiaries of sub-projects and 278 additional jobs. Many members of the same households have been involved in various activities (such as feeding and watering animals, animal husbandry activities, agricultural activities, etc.) (including 151 in Bouhedma, 95 in Dghoumes, and 32 in Jbil). On the other hand, a total of 153 people have had non-permanent jobs, i.e., seasonal agricultural jobs (including 92 persons in Bouhedma, 35 in Dghoumes and 26 in Jbil).</p> 					



Objective/Outcome: To contribute to the conservation of desert biodiversity in the 3 Recipient targeted national parks

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of local species reintroduced in targeted national parks	Number	0.00 28-Jan-2013	0.00 28-Jan-2013	3.00 28-Nov-2018	3.00 11-Mar-2019

Comments (achievements against targets):

Achieved. Three local species reintroduced (enclosure to acclimatize gazelles, addaxes, and ostriches.

(i) In Jbil, the project financed the development of (a) the enclosures to acclimatize fauna especially ungulates (such as, gazelle, addax and ostriche; (b) drinking troughs for wild fauna; and (c) permanent water points aimed at promoting the development of an ecological niche within the park (desert areas).



(ii) in Dghoumes, the project financed the development of (a) the enclosures to acclimatize fauna especially ungulates (such as, gazelle, and addax, and ostriche; (b) drinking troughs for wild fauna; and (c) a small earth dam (which resulted in the creation of a micro-climate which attracted different species of birds and favored, inter alia, the nesting of a pair of migratory birds of the "Tadone Casarca" type).

(iii) Near the Bouhedma Lake: an ostrich acclimation pen has been developed

Translocation action (transport and introduction) from the Orbata Nature Reserve (Gafsa Governorate) of mammals - particularly Gazelle Dorcas, and Red neck ostriches - to introduce them into the parks of Bouhedma, and / or Dghoumes and / or Jbil

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Park management efficiency score	Number	190.00 31-Jan-2013	224.00 22-Nov-2018		224.00 11-Mar-2019
Park management efficiency score for Dghoumes NP	Number	54.00 31-Jan-2013	72.00 05-May-2018		72.00 05-May-2018
Park management efficiency	Number	76.00	85.00		85.00



score for Bouhedma NP		31-Jan-2013	05-May-2018		05-May-2018
Park management efficiency score for Jbil NP	Number	60.00	67.00		67.00
		31-Jan-2013	05-May-2018		05-May-2018
<p>Comments (achievements against targets):</p> <p>Achieved. Used parameters to track efficiency: 65 (in Dghoumes); 84 (in Bouhedma); and 75 (in Jbil).</p> <p>Different parameters have been used to track efficiency, such as the following: (i) Existence of a Management Plan and related priority investments (in compliance with new national legislation); (ii) Acquisition of equipment (such as uniforms for eco-guards, kit for eco-guides, camping equipment and communication, veterinary equipment, ecomuseum equipment, rolling stock, etc.) – this also included road signs, construction and rehabilitation of reception kiosks, guard posts, accommodation for staff and observation towers, rehabilitation of the trail, clearing of trails, as well as CES works (eg gabions);and (iii) Activities aimed at preserving biodiversity and ecological and cultural goods. Forthcoming activities will be related to the development of ecotourism-related initiatives, the scaling up of sustainable land management, and various activities aimed at protecting local biodiversity and sustainable use of natural resources.</p>					

A.2 Intermediate Results Indicators

Component: Promoting enabling conditions for PA management, SLM scale up and ecotourism development

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
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Level of progress toward the revision of the legislative framework for PAs	Number	0.00 31-Jan-2013	3.00 22-Nov-2018		3.00 22-Nov-2018
<p>Comments (achievements against targets): Reinforced institutional legal and strategic frameworks: 3 Levels. Achieved.</p> <p>The first step was achieved through the realization of a deep analysis of the legislative framework related to national parks and the proposal of draft texts supplementing the Tunisian legislative, regulatory and institutional framework relating to protected areas including explicit provisions for sustainable tourism (ecotourism). The second step was achieved through the organization of several consultation workshops with all concerned parties to select best options. A final approval workshop was held during the International Day on Biodiversity on 22 May 2017. The third step was also achieved through the elaboration of a draft Decree (submitted to legislators) proposing appropriate legal and institutional frameworks. However, at the time of the project closure, the government had not yet elaborated appropriate legislation to endorse these proposals and put them into application.</p> <ul style="list-style-type: none"> With the objective to reinforce the institutional legal and strategic framework for the management of the national parks, a study was completed in April 2017 concerning the revision of the national legal and institutional framework regarding management of national parks. The study was approved during the meeting of the monitoring committee of the study (in April 27, 2017) and the workshop of the Biodiversity Day (held on May 24, 2017). 					



- With the objective to reinforce the institutional legal and strategic framework for the management of the national parks, a study was completed in April 2017 concerning the revision of the national legal and institutional framework regarding management of national parks. The study was approved during the meeting of the monitoring committee of the study (in April 27, 2017) and the workshop of the Biodiversity Day (held on May 24, 2017).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Level of progress towards the revision of the regulatory framework for ecotourism	Number	0.00 31-Jan-2013	2.00 22-Nov-2018		2.00 22-Nov-2018

Comments (achievements against targets):

Reinforced regulatory frameworks for ecotourism: 2 Levels. Achieved.

The first step was achieved through the organization of several consultation workshops on ecotourism habitation, and the second step was also realized through a proposal concerning the revision of the decree on classification of ecotourism accommodation (classification of housing with new standards promoting ecotourism and "green" tourist accommodation). The achievements exceeded the expected results to the extent that the revised decree was published and promulgated on February 23rd, 2018. The Project developed a marketing strategy to promote ecotourism, comprising the following elements: realization of a graphic charter, communication media and a series of promotional films, documentaries and reports photos to promote ecotourism in Tunisia and the wealth of national parks; and organization of a study tour on aspects of valorization of natural parks for ecotourism and their management by local communities; development of an ethical charter and



a guide of good ecotourism practices in Tunisia. As before, however, at the time of the project closure, the government had not yet revised the existing regulatory framework for ecotourism (beach tourism is still considered as a top priority).

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Level of progress towards the adoption of the integrated and participatory Management Plans by key stakeholders	Number	0.00 31-Jan-2013	3.00 22-Nov-2018		3.00 22-Nov-2018
Level of progress towards the adoption of the integrated and participatory Management Plans by key stakeholders in Dghoumes	Number	0.00 31-Jan-2013	1.00 31-Jan-2013		1.00 22-Nov-2018
Level of progress towards the adoption of the integrated and participatory Management Plans by key stakeholders in Bouhedma	Number	0.00 31-Jan-2013	1.00 31-Jan-2013		1.00 25-Apr-2018
Level of progress towards	Number	0.00	1.00		1.00



the adoption of the integrated and participatory Management Plans by key stakeholders in Jbil		31-Jan-2013	31-Jan-2013		22-Nov-2018
<p>Comments (achievements against targets):</p> <p>Adoption of the integrated & participatory Management Plan by key stakeholders: 4 PMs. Achieved.</p> <p>Integrated Participatory Management plans have been elaborated in a participative approach including all stakeholders with the support of qualified resource persons. The quality and the content of these plans have been validated and adopted by the local commission based. The Plans identified: (i) priority investments were identified in the Management Plans of the National Parks, through the provision of goods and civil works and management of the National Parks and adjacent areas; and (ii) a program of micro-enterprises-based sub-projects aiming at improving the ecotourism, all through the provision of civil works, goods and consultants' services in relation.</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Additional key staff in targeted parks	Number	3.00 31-Jan-2013	12.00 22-Nov-2018		12.00 22-Nov-2018
<p>Comments (achievements against targets):</p>					



Achieved. Different type of workers.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of person trained (disaggregated by type of stakeholder)	Percentage	0.00	485.00		485.00
		31-Jan-2013	22-Nov-2018		22-Nov-2018

Comments (achievements against targets):

Persons trained (disaggregated by type of stakeholders): 600. Achieved.

Mostly members of local communities (within the context of the implementation of subprojects), and including also 75 technical managers and 10 participants (representative of different institutions) in a study tour.

Component: Supporting the implementation of INRM in targeted NPs and their adjacent areas

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of agreements	Number	0.00	29.00		29.00



between the NP and community associations		31-Jan-2013	22-Nov-2018		22-Nov-2018
<p>Comments (achievements against targets): Achieved.</p> <p>The Project supported the implementation of (i) priority investments identified in the Management Plans of the National Parks, through the provision of goods and civil works and management of the National Parks and adjacent areas; and (ii) a program of micro-enterprises-based sub-projects aiming at improving the ecotourism, all through the provision of civil works, goods and consultants' services in relation</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Subprojects supported by the project	Number	0.00	201.00		201.00
		31-Jan-2013	22-Nov-2018		22-Nov-2018
Number of projects managed by women	Number	0.00	65.00		65.00
		31-Jan-2013	22-Nov-2018		22-Nov-2018
<p>Comments (achievements against targets): Subprojects supported by the project: a total of 226 subprojects. Exceeding expectations (targeted: 184). 65% of subprojects directly managed by women.</p>					



These micro-projects had an undeniable socio-economic impact in terms of: (i) income for the beneficiary families: 42 families with an additional income of less than 300 Tunisian dinars (TND) a month, 49 families with an additional income between 300 and 450 TND per month, 19 families with an additional income of between 450 and 550 TND per month, and 61 families with monthly additional income greater than 550 TND; and (ii) Job creation: 472 permanent jobs, of which 194 are for the direct beneficiaries of micro-projects and 278 additional jobs for their families who became employees of these projects.

The gender and youth aspect has been one of the criteria for the selection of project beneficiaries, almost all of whom are young people, of whom the percentage of women is 20%. Furthermore, the number of women directly involved in managing for-profit micro-projects amounts to 109 who have become true co-managers of these family projects. This significantly increases the participation of women in the management of funded micro-projects. The total number of non-profit subprojects is 27, against 54 planned), and this is mainly due to the lack of NGOs active in the project areas.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Innovative SLM techniques	Number	0.00	13.00		13.00



piloted and promoted in targeted NPs and their surrounding areas		31-Jan-2013	22-Nov-2018		22-Nov-2018
<p>Comments (achievements against targets): Innovative SLM techniques piloted and promoted in targeted NPs and their surrounding areas: 12. Achieved.</p> <p>Several SLM techniques have been piloted and promoted, including: CES[OO1] techniques in the 3 parks, plowing in the opposite direction the slope, protection tracks, scarification to improve the retention of rainwater and improved vegetation cover, construction and / or raising of <i>tabias</i> (a simple technique to fight against silting in desert environments: aligning palm branches (from pruning) on moving sand dunes to form a windbreak to stop the movements of sand dunes thus promoting protection against wind erosion and infrastructure protection).</p> <p>Major techniques of sustainable land management promoted by the project are the following:</p> <p>(i) In Dghoumes: (a) Blackcurrants to avoid erosion on nature trails, protect the natural environment and favor the development of vegetation that can be grazed by wildlife, in addition to the creation of specific micro-climate; (b) Small earth dam to collect water, feed the groundwater, water livestock and create biodiversity in the park; and (c) dry prayer benches (a technique of soil works to limit the water runoff and consequently the water erosion).</p>					



(ii) In Bouhedma: Rehabilitation of a 2 km seguia (open irrigation canal) or hydraulic network towards the ecomuseum (for an optimal use of water resources for the irrigation of the nursery and the watering of the existing fauna); (b) Gabion dry stone to retain water and infiltration which allows the development of spontaneous vegetation, which has the impact of reducing erosion and increase of forage units for wildlife; and (c) *Acacia raddiana* to avoid water erosion, increase of forage units for wildlife and soil fixation.

(iii) Jbil: (a) Fixing and raising dunes by dry palms to avoid erosion by silting (12 km), and the protection of infrastructures; and (b) Closure with delimitation of the area to be protected, reduction of wildlife and large mammal exits, better management by this facilitation of sanitary control of wildlife and finally increase of the number of mammals).



S

A. KEY OUTPUTS BY COMPONENT

PDO Objective: Contribute to the conservation of desert biodiversity in the three Recipient targeted national parks		
Results Indicators	<p>1. Direct project beneficiaries (1,805), of which female and youth (65%): Achieved. Beneficiaries included: members of local communities (including community-based organizations, associations and cooperatives, women's organizations, youth organizations, and environment-related NGOs) and representatives of national and regional institutions. 625 people benefitted from income generating activities, 113 people from different capacity building activities. This good achievement is the result of the project good coordination, the involvement of all stakeholders and the organization of several sensitization seminars and workshops. In addition: 40 different institutions have been involved in the organization of a range of activities 378 people participated as volunteers in activities organized by civil society associations</p> <p>2. Created jobs: 472 jobs created for a total of 637 people. The initial target was: 160 jobs. Achieved, exceeding expectations because of the great interest in the approach. 194 jobs for direct beneficiaries of sub-projects and 278 additional jobs (on a seasonal basis). Many members of the same households have been involved in various activities (such as feeding and watering animals, animal husbandry activities, agricultural activities, etc.) (including 151 in Bouhedma, 95 in Dghoumes, and 32 in Jbil). On the other hand, a total of 153 people have had non-permanent jobs, i.e., seasonal agricultural jobs (including 92 persons in Bouhedma, 35 in Dghoumes and 26 in Jbil).</p> <p>3. Number of local species reintroduced: 3. Achieved. Three local species reintroduced (enclosure to acclimatize gazelles, addaxes, and ostriches. (i) In Jbil, the project financed the development of (a) the enclosures to acclimatize fauna especially ungulates (such as, gazelle, addax and ostriche; (b) drinking troughs for wild fauna; and (c) permanent water points aimed at promoting the development of an ecological niche within the park (desert areas). (ii) in Dghoumes, the project financed the development of (a) the enclosures to acclimatize fauna especially ungulates (such as, gazelle, and addax, and ostriche; (b) drinking troughs for wild fauna; and (c) a small earth dam (which resulted in the creation of a micro-climate which attracted different species of birds and favored, inter alia, the nesting of a pair of migratory birds of the "Tadone Casarca" type). (iii) Near the Bouhedma Lake: an ostrich acclimation pen has been developed</p>	<p>Data collected at local level by CRDAs & PMU</p> <p>Data collected at local level by CRDAs & PMU</p> <p>Data collected at local level by M&E/PMU</p>



	<p>Translocation action (transport and introduction) from the Orbata Nature Reserve (Gafsa Governorate) of mammals - particularly Gazelle Dorcas, and Red neck ostriches - to introduce them into the parks of Bouhedma, and / or Dghoumes and / or Jbil</p> <p>4. Park management efficiency score: 224. Achieved. Used parameters to track efficiency: 65 (in Dghoumes); 84 (in Bouhedma); and 75 (in Jbil).</p> <p>Different parameters have been used to track efficiency, such as the following: (i) Existence of a Management Plan and related priority investments (in compliance with new national legislation); (ii) Acquisition of equipment (such as uniforms for eco-guards, kit for eco-guides, camping equipment and communication, veterinary equipment, ecomuseum equipment, rolling stock, etc.) – this also included road signs, construction and rehabilitation of reception kiosks, guard posts, accommodation for staff and observation towers, rehabilitation of the trail, clearing of trails, as well as CES works (eg gabions);and (iii) Activities aimed at preserving biodiversity and ecological and cultural goods. Forthcoming activities will be related to the development of ecotourism-related initiatives, the scaling up of sustainable land management, and various activities aimed at protecting local biodiversity and sustainable use of natural resources.</p> <p>5. Decline in communities park conflicts: 0 conflicts. Achieved. Baseline: Number of conflicts in 2017: 24. (In Bou Hedma PA, more than 40 cases had been recorded in 2011)</p> <p>A number of initiatives significantly reduced conflicts in the three parks –particularly in Jbil - including poaching related conflicts. This is the result of new forms of public consultations and the collaborative work that has been developed between civil society, the surrounding population and the national Parks administration (in this regard, more than 60 days of associative activities were animated by members of civil society and public administration).</p>	<p>Data collected at local level by M&E/PMU</p> <p>Data collected at local level by M&E/PMU</p>
<p>Objective/Outcome 1: Promoting enabling conditions for Protected Areas Management</p>	<p>1. Reinforced institutional legal and strategic frameworks: 3 Levels. Achieved.</p> <p>The first step was achieved through the realization of a deep analysis of the legislative framework related to national parks and the proposal of draft texts supplementing the Tunisian legislative, regulatory and institutional framework relating to protected areas including explicit provisions for sustainable tourism (ecotourism). The second step was achieved through the organization of several consultation workshops with all concerned parties to select best options. A final approval workshop was held during the International Day on Biodiversity on 22 May 2017. The third step was also achieved through the elaboration of a draft Decree (submitted to legislators) proposing appropriate legal and institutional frameworks. However, at the time of the project closure, the government had not yet elaborated appropriate legislation to endorse these proposals and put them into application.</p> <ul style="list-style-type: none"> • With the objective to reinforce the institutional legal and strategic framework for the management of the national parks, a study was completed in April 2017 concerning the revision of the national legal and institutional framework regarding management of national 	<p>Data collected at local level by M&E/PMU</p>



	<p>parks. The study was approved during the meeting of the monitoring committee of the study (in April 27, 2017) and the workshop of the Biodiversity Day (held on May 24, 2017).</p> <p>2. Reinforced regulatory frameworks for ecotourism: 2 Levels. Achieved. The first step was achieved through the organization of several consultation workshops on ecotourism habitation, and the second step was also realized through a proposal concerning the revision of the decree on classification of ecotourism accommodation (classification of housing with new standards promoting ecotourism and "green" tourist accommodation). The achievements exceeded the expected results to the extent that the revised decree was published and promulgated on February 23rd, 2018. The Project developed a marketing strategy to promote ecotourism, comprising the following elements: realization of a graphic charter, communication media and a series of promotional films, documentaries and reports photos to promote ecotourism in Tunisia and the wealth of national parks; and organization of a study tour on aspects of valorization of natural parks for ecotourism and their management by local communities; development of an ethical charter and a guide of good ecotourism practices in Tunisia. As before, however, at the time of the project closure, the government had not yet revised the existing regulatory framework for ecotourism (beach tourism is still considered as a top priority).</p> <p>3. Adoption of the integrated & participatory Management Plan by key stakeholders: 4 PMs. Achieved. Integrated Participatory Management plans have been elaborated in a participative approach including all stakeholders with the support of qualified resource persons. The quality and the content of these plans have been validated and adopted by the local commission based. The Plans identified: (i) priority investments were identified in the Management Plans of the National Parks, through the provision of goods and civil works and management of the National Parks and adjacent areas; and (ii) a program of micro-enterprises-based sub-projects aiming at improving the ecotourism, all through the provision of civil works, goods and consultants' services in relation.</p> <p>4. Additional key staff in targeted PAs: 12. Achieved. Different type of workers.</p> <p>5. Persons trained (disaggregated by type of stakeholders): 600. Achieved. Mostly members of local communities (within the context of the implementation of subprojects), and including also 75 technical managers and 10 participants (representative of different institutions) in a study tour.</p>	<p>Data collected at local level by M&E/PMU</p> <p>Data collected at local level by M&E/PMU</p> <p>Data collected at local level by M&E/PMU</p> <p>Data collected at local level by M&E/PMU</p>
Objective/Outcome 2: Supporting the	<p>1. Agreements between NPs and communities: 12. Achieved. The Project supported the implementation of (i) priority investments identified in the</p>	Data collected at local level by M&E/PMU



Data collected at local level by M&E/PMU

The gender and youth aspect has been one of the criteria for the selection of project beneficiaries, almost all of whom are young people, of whom the percentage of women is 20%. Furthermore, the number of women directly involved in managing for-profit micro-projects amounts to 109 who have become true co-managers of these family projects. This significantly increases the participation of women in the management of funded micro-projects. The total number of non-profit subprojects is 27, against 54 planned), and this is mainly due to the lack of NGOs active in the project areas.

(i) In Dghoumes: (a) Blackcurrants to avoid erosion on nature trails, protect the natural environment and favor the development of vegetation that can be grazed by wildlife, in addition to the creation of specific micro-climate; (b) Small earth dam to collect water, feed the groundwater, water livestock and create biodiversity in the park; and (c) dry prayer benches (a technique of soil works to limit the water runoff and consequently the water

Data collected at local level by M&E/PMU



erosion).

(ii) In Bouhedma: Rehabilitation of a 2 km segua (open irrigation canal) or hydraulic network towards the ecomuseum (for an optimal use of water resources for the irrigation of the nursery and the watering of the existing fauna); (b) Gabion dry stone to retain water and infiltration which allows the development of spontaneous vegetation, which has the impact of reducing erosion and increase of forage units for wildlife; and (c) Acacia raddiana to avoid water erosion, increase of forage units for wildlife and soil fixation.

(iii) Jbil: (a) Fixing and raising dunes by dry palms to avoid erosion by silting (12 km), and the protection of infrastructures; and (b) Closure with delimitation of the area to be protected, reduction of wildlife and large mammal exits, better management by this facilitation of sanitary control of wildlife and finally increase of the number of mammals).



ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Supervision/ICR	
Taoufiq Bennouna	Task Team Leader(s)
Walid Dhouibi, Jocelyne Jabbour	Procurement Specialist(s)
Mehdi El Batti	Financial Management Specialist
Antoine V. Lema	Social Specialist
Leila Chelaifa	Team Member
Mohamed Adnene Bezzaouia	Environmental Specialist

A. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
Preparation		
FY10	.250	1,257.10
FY11	9.551	61,585.98
FY12	14.934	106,684.14
FY13	21.227	66,573.07
FY14	.300	1,508.52
Total	46.26	237,608.81
Supervision/ICR		
FY14	11.171	26,181.86
FY15	5.128	36,249.75
FY16	1.467	20,694.95



FY17	5.300	45,439.76
FY18	4.287	36,488.38
FY19	3.335	53,544.11
FY20	1.315	9,780.47
Total	32.00	228,379.28



ANNEX 3. PROJECT COST BY COMPONENT

A. Project Cost by component (at approval)

Components	Amount at Approval (USDM)	Actual at Project Closing (USDM)	Percentage of Approval (USDM)
Promoting enabling conditions for PA management, SLM scale up and ecotourism development	1.40	1.56	0
Supporting the implementation of INRM in targeted NPs and their adjacent areas	2.37	2.51	0
Project Management	0.20	0.20	0
Physical and price contingencies	0.30	0.20	
Total	4.27	4.27	100.00

B. Project Cost (at closing)

Component	Initial GEF Financing	GEF Financing after June 2017	Effective GEF Financing	Co-financing	Total
Promoting enabling conditions for PA management, SLM scale up and ecotourism development	1 400 000	1 156 200	939 665	702 400	1 642 065
Supporting the implementation of INRM in targeted NPs and their adjacent areas	2 370 000	2 856 400	2 906 685	2 441 310	5 347 995
Project Management	200 000	237 400	284 915	444 000	728 915
Physical and price contingencies	300 000	20 000	0		
TOTAL	4 270 000	4 270 000	4 131 265	3 587 710	7 718 975



ANNEX 4. EFFICIENCY ANALYSIS

At appraisal, an ex-ante economic analysis was not carried out for this type of GEF project, and an incremental cost analysis was considered instead. Under the analysis, global environmental benefits in terms of sustainable management of natural resources (land, water and vegetation), protection of threatened dryland and desert biodiversity, and protection against erosion and desertification, were foreseen. Although difficult to quantify, these global environmental benefits were achieved through the project and also contributed to increase the resilience of the selected ecosystems and human livelihoods to climate change and variability.

Similarly, the number of public job creation and the income generating activities proved successful and an ex-post quantitative economic analysis is carried out for this ICR, the main elements of which are summarized below.

A number of key assumptions were considered in the ex-post economic analysis:

- A real discount rate of 6% per annum.
- The right-of-way, including the price of land and any structures on the land, was not included in the analysis.
- The disbursement period is from 2013 to 2018. Although the benefits are assumed to accrue in the future, they were not considered in the analysis. The cumulative job and income generating activities from 2013 to 2018 will be considered in the analysis.

Quantification of Benefits

As many of the benefits of small improvements implemented in parks are difficult to quantify, the economic analysis is limited to the increase income of the beneficiaries as usually, these range between 30 and 40 percent in the second year of the project in similar situation in the region. Based on the latest ISR, a total of 637 people was permanently or seasonally employed in the three parks whereas 197 Micro-enterprises-based Subprojects and 29 Community-based Subprojects benefited from the project, making a total of 226 Micro -projects. These subprojects diverted the anthropogenic pressures on the parks' natural resources and improved the average monthly income of beneficiaries by Tunisian Dinar (TND) 300.

The benefits that were considered in the analysis are as follows:

1. 492 people were employed permanently. Seasonal employment is not considered in the analysis.
2. 197 households benefited from the income generating activities that increase the average monthly income by TND 300.

The benefits that were not considered in the analysis and could have increased the viability of the project were the reduction of the land degradation in and around the parks as an indicator was not considered in the Result Framework. So were the benefits associated with the number of park visitors that could have been calculated either through the entry fees or through a travel cost method. Unfortunately, these statistics were not readily available. More importantly, the residence of park national and international visitors should be collected in the future to try to derive the benefits associated with the parks' visits.



Results of Economic Analysis

Costs associated with the four components are considered in the ex-post economic analysis and are assumed to be disbursed as illustrated in Table 1.

Table 1: Economic Flows
(USD million)

Category	2013	2014	2015	2016	2017	2018	2019
Total CAPEX	0.62	0.25	0.35	1.11	1.17	0.64	
Total OMEX							
Ben 1 Job creation	0.00	0.00	0.00	2.24	3.02	3.02	0.00
Ben 2 Income generating activities	0.00	0.06	0.12	0.17	0.21	0.30	0.00

Source: Project ISR 11 2018.

The project is economically viable with a net present value (NPV) of USD 3.5 million (using a discount rate of 6%) with an economic rate of return (ERR) of 64% and a PV B/C ratio of 2.1 (Table 2). The project remains viable even when using discount rates of 8% and 10% as the country risk justifies the utilization of higher discount rates (depreciation of the national currency, inflation and political risks). Further details of the economic analysis are in the Project Files.

Table 2: Economic Analysis of the Entire Project

Key Economic Indicator	Viability Criteria (6% Discount rate Over the investment)	Entire Project discounted at 6%	Entire Project discounted at 8%	Entire Project discounted at 10%
Economic Analysis				
NPV (USD million)	>0	3.5	3.0	2.5
ERR (±%)	≥discount rate	64%	64%	64%
PV Benefit/Cost Ratio	>1	2.1	2.0	1.9
Viability		Yes	Yes	Yes

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International Monetary Fund. 2017. *Tunisia Article IV*. Washington, D.C.

World Bank. 2019. *World Development Indicators*. Washington, D.C.



ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

As part of the closing workshop with project stakeholders during the final ISR/ICR mission, a power point presentation of the draft ICR was presented and discussed. Overall, the findings related to results and implementation process were well received by the audience. The Borrower prepared an Impact Evaluation, its summary is included in Annex 6.

Socio-Economic Impact Report: the PIU prepared a Socio-Economic Impact Report for the project. The English version of the Executive Summary of that report is included in Annex 6.



ANNEX 6. SUPPORTING DOCUMENTS

- Aide-memoires of supervision missions
- Various Implementation Status & Results Report
- Annual Progress reports (prepared by the project management unit)
- Union tunisienne de Solidarité sociale (UTSS) (2019) *Analyse approfondie des impacts socio-économiques des activités génératrices de revenus (In-depth analysis of the socio-economic impacts of income-generating activities)* (Projet écotourisme et conservation de la biodiversité désertique).
- MALE (2019) « Rapport de Fin d'exécution et des Résultats du Projet « Ecotourisme et Conservation de la Biodiversité Désertique en Tunisie » (Final Progress of the "Ecotourism and Conservation of Desert Biodiversity in Tunisia (PECDDB) Don FEM N° TF013636
- MALE (2019) *From Mass Tourism to Ecological Tourism in Tunisia* (Report prepared for the Ecotourism and Conservation of Desert Biodiversity Project, Tunisia).
- MALE (2019) *Évaluation de l'impact des Actions et Réalisations du Projet Écotourisme sur la Biodiversité au Sein des Parcs Nationaux de Bou Hedma, Jbil & Dghoumess*
- *(Evaluation of the impact of the Ecotourism Project Actions and Achievements on Biodiversity within the Bou Hedma, Jbil & Dghoumess National Parks)*
- DGEQV (2019) *Analyse approfondie des impacts socio-économiques des activités génératrices de revenus (Analysis of income-generating activities)* (Projet écotourisme et conservation de la biodiversité désertique)
- Republic of Tunisia (2016) *Tunisia 2020. Road to Inclusion, Sustainability and Efficiency*
- Republic of Tunisia (2018) *National Strategy for the Green Economy*
- Programme de Mise à niveau des Etablissements hôteliers (PMNH) : *Lignes directrices (Guidelines)* (2018)

DOCUMENTATION PREPARED BY THE PROJECT

1. EXCERPTS FROM THE NATIONAL COMPLETION REPORT (May 2019)

CONCLUSIONS

Sustainability of activities

The beneficiaries of the microprojects do not intend to abandon their activities; on the contrary, they intend to consolidate them. The presence of agricultural extensionist in the field, providing technical advice and responding to additional requests that have not yet been fulfilled, is already a guarantee for the sustainability and extension of microprojects. These initiatives will be further consolidated with the increase in ecotourism

Local associations generally have good local roots. They will be involved in the management of the plans, even after the cessation of funding. Income-generating activities require only small amounts of funds. Local and regional authorities will easily continue to intervene directly and / or through intermediaries and keep creating new jobs and generating socio-economic dynamics in its vulnerable areas. Relevant government actors have improved



methodological tools, marketing products and institutional and legal frameworks that facilitate business continuity and improve the effectiveness of their interventions to implement their specific strategies.

Major Lessons learned

- The PECDBD has contributed to the preservation of biodiversity of the 3 parks by efficiently involving local civil society.
 - The income-generating activities financed by the project have been particularly effective and efficient: They have allowed the reconciliation between the population and the park administration, the diversification of their livelihoods, and the creation of jobs.
 - Capacity building initiatives have rightly been considered as a priority.
 - Institutional arrangements, by strengthening the dialogue between the park administration and local communities, have been efficient.
 - In the year to come, an efficient system should monitor the impact of the project on the biodiversity.
 - Regulations concerning the restricted use of natural resources have always to be accompanied by concrete incentives and financial compensations.
-