Integrated approach to management of forests, with demonstration in high conservation value forests in the Mediterranean region

Turkey

GEF Agency: United Nations Development Programme
Executing Entity: General Directorate of Forestry, Ministry of Environment and Forestry

GEF Biodiversity and Climate Change Focal Areas; GEF Project ID: 4469
UNDP PIMS: 4434; UNDP Atlas Award ID: 00070163; Atlas Project ID: 00084294

Photo: Ugur Zeydanli

Terminal Evaluation Report
September 1, 2020

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Contents

Acronyms

APR	Annual Project Report
C/I	Criteria and Indicators
CBD	Convention on Biological Diversity
CBM	Carbon Budget Modeling
CEO	Chief Executive Officer
COP	Conference of Parties
CPAP	Country Program Action Plan
CPD	Country Program Document
CSO	Civil Society Organization
DKM	Nature Conservation Centre (Doğa Koruma Merkezi in Turkish)
DSS	Decision Support System
EA	Executing Agency
FAO	Food and Agriculture Organization
FED	Forest Enterprise District
FMP	Forest Management Plan
FMU	Forest Management Unit
FSP	Full-size Project
GDF	General Directorate of Forestry
GEF	Global Environment Facility
GHG	Green House Gas
GIZ	German Agency for International Cooperation
Ha	hectares
HACT	Harmonized Approach to Cash Transfer
HCVF	High Conservation Value Forest
IA	Implementing Agency
IUCN	International Union for the Conservation of Nature
KM	Kilometers
LDN	Land Degradation Neutrality
LULUCF	Land Use, Land Use Change, and Forestry
M&E	Monitoring and Evaluation
MoFWA	Ministry of Forestry and Water Affairs
MTR	Mid-term Review
MRV	Monitoring, Reporting and Verification
N/A	Not applicable
NAMA	Nationally Appropriate Mitigation Action
NCC	Nature Conservation Centre
NDC	Nationally Determined Contribution
NGO	Non-governmental Organization
NIM	National Implementation
N/S	Not specified
NWFP	Non-wood forest product
PB	Project Board
PIF	Project Information Form
PIMS	Project Information Management System
PIR	Project Implementation Report
PMU	Project Management Unit
PPG	Project preparation grant (of the GEF)

PSC	Project Steering Committee
SDG	Sustainable Development Goals
SFM	Sustainable Forest Management
STAP	Scientific and Technical Advisory Panel (of the GEF)
TOR	Terms of Reference
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
USD	United States dollars

I. Executive Summary

Table 1 Project Summary Data

Project Information Table

Project Details		Project Milestones	
Project Title	Integrated Approach to Management of Forests, with Demonstration in High Conservation Value Forests in the Mediterranean Region	PIF Approval Date:	May 1, 2011
UNDP Project ID (PIMS #):	4434	CEO Endorsement Date (FSP) / Approval date (MSP):	December 28, 2012
GEF Project ID:	4469	ProDoc Signature Date:	July 23, 2013
UNDP Atlas Business Unit, Award ID, Project ID:	00070163	Date Project Manager hired:	
Country/Countries:	Turkey	Inception Workshop Date:	December 2013
Region:	Europe & CIS	Mid-Term Review Completion Date:	October-December 2017
Focal Area:	Multi-focal (Biodiversity, Climate Change Mitigation, Sustainable Forest Management (SFM)	Terminal Evaluation Completion date:	March-June 2020
GEF Operational Programme or Strategic Priorities/Objectives:		Planned Operational Closure Date:	January 22, 2020 (Actual)
Trust Fund:	GEF TF		
Implementing Partner (GEF Executing Entity):	General Directorate of Forestry		
NGOs/CBOs involvement:	Nature Conservation Center, Gold Standard Foundation		
Private sector involvement:	*Engagement of small-scale potential ecotourism partners and NWFP harvesters.*		
Geospatial coordinates of project sites:	Numerous, see Prodoc and PIRs.		

Financial Information		
PPG	at approval (US$M)	at PDF/PPG completion (US$M)
GEF PPG grants for project preparation	USD 125,000	-
Co-financing for project preparation	-	-
Project	at CEO Endorsement (US$M)	at Completion (US$M)
[1] UNDP contribution:	USD 820,000	USD 820,000
[2] Government:	USD 19,400,000	USD 22,949,623
[3] Other multi-/bi-laterals:	-	700,000

[4] Private Sector:	-	-
[5] NGOs:	USD 1,210,000	USD 463,992
[6] Total co-financing [1 + 2 + 3 + 4 + 5]:	USD 21,430,000	USD 24,933,615
[7] Total GEF funding:	USD 7,120,000	USD 7,120,000
[8] Total Project Funding [6 + 7]	USD 28,550,000	USD 32,053,615

PROJECT DESCRIPTION AND OVERVIEW

1. The Turkey Sustainable Forest Management (SFM) project is a Global Environment Facility (GEF)-funded full-sized project working to promote an integrated approach to management of forests in Turkey, demonstrating multiple environmental benefits in high conservation value forests in the Mediterranean forest region. The project officially commenced in July 2013 at Prodoc signature, implementation began in December, 2013 with the inception workshop, and the project was completed January 22, 2020. The project is a multi-focal area project with the biodiversity and climate change mitigation focal areas combining to link through the SFM program. The project has GEF funding of $7.12 million USD, and had actual co-financing of $24.93 million USD, for a total project cost of $32.05 million USD. The project is executed under UNDP's National Implementation (NIM) modality, with the General Directorate of Forestry as the main executing partner. UNDP is the implementing agency supporting execution and implementation, and is responsible for oversight of delivery of agreed outputs as per agreed project work plans, financial management, and for ensuring cost-effectiveness. At policy and strategic level the Project Board guides the project.

2. As stated in the Prodoc, *"The project objective is to promote an integrated approach to management of forests in Turkey, demonstrating multiple environmental benefits in high conservation value forests in the Mediterranean forest region."* The project is structured in three components (further elaborated in 13 outputs):

- **Component 1: Policy and institutional framework for integrated forest management within the landscape**
- **Component 2: Implementation of forest-based GHG mitigation and carbon sequestration tools within landscape**
- **Component 3: Strengthening protection of high conservation value forests in Mediterranean landscape**

3. The project strategic results framework, with expected indicators and targets, is included in the project document (pp. 37-39). The project results framework represents the primary foundational element for assessing project results (progress toward the expected outcomes and objective) and effectiveness.

4. According to GEF and UNDP evaluation policies, terminal evaluations are required for all GEF-funded full-size projects (FSPs), and the terminal evaluation was a planned activity of the monitoring and evaluation (M&E) plan of the Turkey SFM project. As per the evaluation Terms of Reference (TORs) the terminal evaluation assesses the actual performance and progress toward results of the project against the planned project activities and outputs, based on the standard evaluation criteria: relevance, efficiency, effectiveness, results and sustainability. The evaluation assesses progress toward project results based on the expected objective and outcomes, as well

as any unanticipated results. The evaluation identifies relevant lessons for other similar projects in the future, and provides recommendations as necessary and appropriate. The evaluation methodology was based on a participatory mixed-methods approach, which included two main elements: a) a desk review of project documentation and other relevant documents; and b) interviews with Key Informants from the range of stakeholders. Interviews were conducted remotely due to the impossibility of travel due to the global coronavirus pandemic. The desk review was begun in April 2020, and the Key Informant interviews were completed in May 2020.

FINDINGS AND CONCLUSIONS ON THE MAIN EVALUATION CRITERIA

5. With respect to **relevance**, the project is considered ***relevant / highly satisfactory***. The project clearly supports national priorities related to sustainable forest management, forest and land degradation, and climate change. The project also supports Turkey's implementation of relevant multilateral-environmental agreements – the Convention on Biological Diversity (CBD), and United Nations Framework Convention on Climate Change (UNFCCC). The project also fully conforms with GEF focal area strategies and priorities for GEF-5. In terms of design and strategy, the project was structured appropriately for addressing SFM in Turkey; there were a few lessons relating to the project's design, as outlined in the "Lessons" section of this report, but on the whole the project's design was sound. The main lessons relate to realistic project design for up-scaling, sequencing of activities, the time necessary for full institutionalization of project results, and more meaningful integration of socio-economic aspects.

6. Project **efficiency** is rated ***satisfactory***. The project's adaptive management, communication, partnership, and reporting were strong points. UNDP, as the implementing agency, and GDF, as the executing agency, worked together closely in a robust and unified approach to achieving the project objective. Perhaps the project's single most important success factor was the integral relationship between the project and the GDF, the main beneficiary institution. The full stakeholder ownership by GDF, combined with a long-term policy strategy, provided the project a firm footing and fertile ground for achieving long-term outcomes. As one project participant stated, a key success factor was working with "a strong, independent institution, with a long-term vision." In addition, the project's partnership approach of leveraging civil society organizations, particularly the Nature Conservation Center, paid large dividends in terms of generating results with a highly efficient use of resources. Financial management procedures were in-line with international norms, and conformed to UNDP policies and procedures. Project management costs were in-line with the originally planned amount (8.43%), and project co-financing exceeded the planned amount by 16%. The project was originally planned for 5 years, and with a formal start in July 2013, it was expected that the project would have been completed in July 2018. The completion date of January 2020 represents an 18-month extension, which is long per the UNDP and GEF norm of 6-12 month extensions. The long extension was due to the many extenuating external circumstances (i.e. political instability at the national and global level) that affected implementation, and which required active adaptive management. On the other hand, the practical repercussions of these external circumstances were that the exchange rate between the Turkish lira and the US dollar shifted by more than 330% from the time the project was approved by the GEF until project completion; this increased the project's available budget in local currency. The project had many expenses denominated in

USD, it is likely that the increased budget in local currency compared to original plans was a positive factor for the project in terms of financial planning, but it is not possible to easily calculate the significance of this factor.

7. The project's **effectiveness** is rated as ***satisfactory.*** The project generated many significant results, and overall the project was able to achieve the planned outcomes, and the project objective. One unexpected element of the project's effectiveness was the project's ability to link SFM monitoring to national reporting on Sustainable Development Goals (SDGs). This is a highly useful model that has significant potential for wider applications at the international level. The main challenge in terms of project effectiveness relates to the practicality of scaling-up the integrated Forest Management Plan approach that was piloted by the project in 5 Forest Enterprise Directorates, encompassing Forest Management Plans (FMPs) for 28 Forest Management Units (FMUs). Project participants highlighted how useful and important the integrated approach supported by the project is, which brings together forest management aspects related to NWFPs, biodiversity, fire management, carbon management, pest management, and ecotourism. At the same time, project participants noted that the GDF has 2,140 FMUs nationally, and with a 10-year planning cycle, this means that 214 FMPs should be completed each year; in reality, the GDF currently only has the capacity to complete approximately 100 FMPs each year, which is still an impressive figure. The project produced 28 FMPs over a 3-4 year period. All project stakeholder recognized the importance of the project-supported integrated and comprehensive approach, involving numerous stakeholders and external technical experts. However, this approach can clearly not be easily translated and upscaled to the national level that requires 100-200 FMPs produced per year. Doing so would require large increases in GDF financial resources, and in any case, in the short-term, would not be feasible based on the limited supply of technical experts in Turkey. Project participants highlighted the fact that an integrated approach to SFM is slowly being upscaled through modifications to national level regulations and planning guidelines, but this process is slow, and depends on technically capable staff. Consequently, the Government of Turkey, with support from UNDP, needs to explore more efficient means of developing integrated FMPs, as further emphasized in the recommendations of this terminal evaluation.

8. Project **results / achievement of overall outcomes** is rated ***highly satisfactory***. The project *exceeded* the planned targets for 7 out of the 14 project results indicators. The planned results were achieved for 6 other indicators, with one indicator target partially achieved. As one project participant stated, *"We [i.e. GDF] have implemented many donor projects, but we can say that surely this was the project that was the most successful that we have implemented until now. Everybody is really happy with the results."*

9. The overarching achievement of the project is the completion (and initial implementation) of 28 FMPs in 5 pilot FEDs, covering a total of 638,923 hectares. This exceeds the target value by approximately 42% in terms of hectares. Other major project results were achieved in relation to fire management, national SFM Criteria and Indicators, the development of the SFM Decision Support System (DSS) software platform, the biodiversity integration tool, and capacity strengthening of GDF. The value and potential of the DSS as a tool for forest management (as well as other potential applications, such as integrated land use management)

is hard to overstate. This is a highly useful software platform that was carefully and thoughtfully designed to be potentially applicable beyond Turkey.

10. In relation to fire management, the Early Warning System supported by the project has already produced impact level results, contributing to a reduction in the number of forest fires annually, and reducing the average time to respond to a fire from 17 to 12 minutes. The firefighting cost savings to GDF in 2019 was more than $43 million USD. Many of the project results are in the process of being scaled up to national or international levels. For example, the forest fire Early Warning System was initially established in the 5 project pilot FEDs, then expanded to 30 additional FMUs in 2019, and the GDF is working to scale the system to the full national level in 2020.

11. The only notable shortcoming in terms of project results was that the project did not make as much progress as originally planned with respect to pest early warning systems and pest management. The project was able to set up pest management laboratories, but these were only initially staffed in 2020, after the completion of the project. Therefore the project was not able to fully achieve the planned targets for this part of the project. This was partially due to the fact that this is an especially challenging issue from a technical perspective, with relatively fewer good examples at the international level.

12. Sustainability is one of the five main evaluation criteria, as well as being considered one of the GEF operational principles. Based on GEF evaluation policies and procedures, the overall rating for sustainability cannot be higher than the lowest rating for any of the individual components. Therefore, the overall **sustainability** rating for the Turkey SFM project is ***moderately likely***. Short term financial risks are limited, and financial sustainability is considered likely. For example, there is no financial risk for the continued operation and maintenance of the DSS. In the long-term, scaling-up results depends on the financial capacity of the GDF. Socio-political sustainability is considered moderately likely, based on the fact that there remains significant potential to explore and develop linkages between forest management, and sustainable livelihoods for local forest communities. Institutional and governance risks are not present, as GDF is a strong and fully engaged institutional partner; sustainability in this regard is considered likely. There are a few long-term environmental risks to the sustainability of project results, such as climate change impacts, and the potential for economic pressure from a poor national economy to stimulate less-sustainable harvest practices. Environmental aspects of sustainability are considered moderately likely.

RECOMMENDATIONS

13. The key recommendations of the terminal evaluation are summarized below. As this is the Terminal Evaluation, the scope for recommendations is limited. The report body and Section VIII.B provides more detail and context for these recommendations.

Recommendations Table

Rec #	TE Recommendation	Entity Responsible	Timeframe
1.	UNDP and GDF should ensure that the various technical trainings conducted during the project are packaged into training modules, and then fully integrated in regular GDF training programs.	UNDP, GDF	Immediate

2.	To further support the sustainability of project results, GDF and its partners should continue working to develop and implement a monitoring system for tracking SFM outcomes in the implementation of FMPs, especially with respect to biodiversity.	GDF, UNDP, NCC	Immediate
3.	UNDP should explore all possibilities to continue the development of the DSS, and its global dissemination, including the development of a user manual that could be translated into multiple languages.	UNDP	Immediate
4.	Projects should have multi-stakeholder steering committees, with all major stakeholders or stakeholder groups represented. This is one way to strengthen stakeholder ownership, stakeholder engagement, coordination, cooperation, and transparency in the implementation of GEF projects. In the case of the Turkey SFM project this was not a major issue, but future UNDP-GEF projects in Turkey should implement such a mechanism to ensure optimum stakeholder engagement during project implementation.	UNDP	Immediate
5.	GDF should continue implementing new technologies to increase the efficiency of forest inventory and forest management in Turkey. Specifically, the GDF should invest in a national level forest inventory supported by remote sensing data. In addition, the GDF should fully scale-up the application of the DSS to the national level as soon as possible. Increasing the efficiency of Forest Management Planning is the only feasible way to accelerate the uptake of integrated forest management planning approaches.	GDF	Immediate
6.	UNDP, GDF, and other partners (e.g. FAO) should work to develop a landscape-level strategic approach to SFM, in order to increase efficiency and effectiveness of integrated forest management planning. This has been initiated to some extent with support from NCC, but if implemented more widely would have potential to improve SFM results over time.	UNDP, GDF	Immediate

7.	Most GEF FSPs are designed to be implemented over 4-5 years. Yet, the long-term impact and sustainability of results for many projects depends on institutionalizing project results within key national environmental management institutions, such as the GDF. These processes can take years. The GEF and UNDP should design and develop projects that specifically include outputs on institutional capacity development, and the institutionalization of project results. GEF projects should be planned for 6-7 years to successfully implement these types of activities. For many GEF projects the current implementation timeframes have not been adequate to ensure project outputs are institutionalized for long-term outcomes and impacts. Long-term strengthening of national-level natural resource and environmental management institutions is a critical strategic direction for the GEF to embrace for the future generation of Global Environmental Benefits.	GEF Secretariat, UNDP	Immediate

LESSONS

14. The below lessons have been documented through the terminal evaluation process. Section VIII.A at the end of this evaluation report provides more details and context for each of the lessons.

a) **Having execution arrangements where project technical experts have the support to work directly with technical experts from the main beneficiary partner can lead to project efficiencies and synergies.**

b) **Tracking biodiversity impacts can be challenging when attempting to apply strictly population-based tracking indicators for certain types of species**, which requires comprehensive field monitoring, or needs to be linked in with existing monitoring practices with other partners.

c) **Institutionalizing project results and outputs can take a long time, and this process should be planned for in project development.** This requires dedicated time and resources for institutionalizing and sustaining key results, in order to support sustainability and upscaling.

d) **Staff turnover is a key issue within many government institutions, which must be acknowledged and planned for from the very beginning of any project** for which the results depend on having a strong institutional partner (this includes a large majority of GEF-funded projects).

e) **Engaging well-qualified civil society organizations as execution partners can have significant benefits for a project.** This can reduce pressure on UNDP and the national execution partner, and such organizations often have highly valuable technical expertise to contribute. In the case of the Turkey SFM project, the NGO Nature Conservation Center

(NCC, or DKM in Turkish) was an invaluable partner, particularly in terms of integrating biodiversity into forest management planning.

f) **The project did an excellent job producing outputs in English** and Turkish, which greatly helps the relevance of the project outputs for scaling up and replication at the international level.

g) **It would have been preferable if the project activities could have been sequenced so that the SFM Criteria and Indicators had been completed before the work on the FMPs**, so the criteria and indicators could have been fully integrated into the FMP planning process, but this was not feasible with the time available for the project activities.

h) Forest pest management is a complex issue that does not yet have a deep and robust body of international knowledge, and therefore planned results in relation to pest management in SFM projects should be realistic and initially small scale.

i) **It can take significant amounts of time for large, established institutions to accept and absorb new practices and management approaches, especially when these relate to new concepts, or involve new technologies.** The project's work on MRV, the DSS, and the activities on forest inventory through remote sensing data required a lot of time for the GDF to understand the implications and begin to integrate these tools.

j) **It is beneficial to consider socio-economic aspects of forest management from the early design and planning stages of any SFM project.**

k) **It is highly beneficial for the impact of the training, the focus and attention of the group, and for building networks if the training is held off-site**, at a location sufficiently distant from where trainees live and work, such that trainees are required to spend the night and share meals. This approach helps trainees "tune out" other distractions, keeps participants from leaving for a few minutes here and there to go back to their office or otherwise multitask during the training.

l) **It is best to plan trainings involving local stakeholders at a time of year that is most conducive to ensuring high participation.**

m) I**t is highly effective to have real life examples of success stories for trainees to listen to and learn from.** In the training organized by the project there were three representatives from other regions of Turkey who were able to present their positive examples.

n) **Building local ecotourism value chains among different types of private sector actors and stakeholders requires a sustained effort over a period of at least 1-2 years.** For example, the engagement of local hotels and travel agencies from Koycegiz in the ecotourism training activities was less than ideal, because to effectively engage these stakeholders requires multiple meetings and visits over an extended period of time, just one visit is not enough.

o) **Effective gender mainstreaming in rural areas may require creative and innovative approaches.** In some regions of some countries it can be challenging to effectively engage women in rural areas where the presence or input of women in affairs outside of the home is not typically expected or accepted. However, there are creative opportunities and ways to increase the effectiveness of gender mainstreaming approaches.

p) **When developing or implementing new technologies or new technological tools, it can be highly beneficial for the supporting experts to have adequate in-person time meeting with the end-user audience to ensure there is full understanding of the end users' needs and priorities.** This ensures that the uptake and roll-out of new technologies and tools is a rapid and smooth as possible.

q) Tangential to the above lesson, **UNDP-GEF project developers should ensure that travel budget for external support providers is adequately planned and conservatively budgeted.** For the Turkey SFM project, some aspects of the project could have been more efficient if external experts had been able to spend more time in Turkey working directly with their GDF counterparts.

TURKEY SFM PROJECT TERMINAL EVALUATION SUMMARY RATINGS TABLE

1. Monitoring & Evaluation (M&E)	Rating
M&E design at entry	MS
M&E Plan Implementation	MS
Overall Quality of M&E	MS
2. Implementing Agency (IA) Implementation & Executing Agency (EA) Execution	Rating
Quality of Implementation by IA	S
Quality of Execution by EA	HS
Overall Quality of Implementation/Execution	HS
3. Assessment of Outcomes and Impact	Rating
Relevance	R / HS
Effectiveness	S
Efficiency	S
Outcome 1	HS
Outcome 2	S
Outcome 3	HS
Overall Project Outcome Rating	HS
Impact – Environmental Status Improvement	Minimal
Impact – Environmental Stress Reduction	Significant
Impact – Progress toward stress / status change	Significant
4. Sustainability	Rating
Financial resources	L
Socio-political	ML
Institutional framework and governance	L
Environmental	ML
Overall Likelihood of Sustainability	ML
5. Overall Project Rating	HS

Standard UNDP-GEF Ratings Scale

Rating Criteria	Rating Scale
Relevance	• **Relevant (R)** • **Not-relevant (NR)**
Effectiveness, Efficiency, Effectiveness,	• **Highly satisfactory (HS):** There were no shortcomings in the achievement of objectives in terms of effectiveness or efficiency

Efficiency, M&E, Implementation, Execution, Relevance	• **Satisfactory (S):** There were minor shortcomings in the achievement of objectives in terms of effectiveness or efficiency • **Moderately satisfactory (MS):** There were moderate shortcomings in the achievement of objectives in terms of effectiveness or efficiency • **Moderately unsatisfactory (MU):** There were significant shortcomings in the achievement of objectives in terms of effectiveness or efficiency • **Unsatisfactory (U):** There were major shortcomings in the achievement of objectives in terms of effectiveness or efficiency • **Highly unsatisfactory (HU):** There were severe shortcomings in the achievement of objectives in terms of effectiveness or efficiency
Sustainability	• **Likely (L):** Negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future • **Moderately Likely (ML):** Moderate risks, but expectations that at least some outcomes will be sustained • **Moderately Unlikely (MU):** Substantial risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on • **Unlikely (U):** Severe risk that project outcomes as well as key outputs will not be sustained
Impact	• **Significant (S):** The project contributed to impact level results (changes in ecosystem status, etc.) at the scale of global benefits (e.g. ecosystem wide, significant species populations, etc.) • **Minimal (M):** The project contributed to impact level results at the site-level or other sub-global benefit scale • **Negligible (N):** Impact level results have not (yet) been catalyzed as a result of project efforts
Other	• **Not applicable (N/A)** • **Unable to assess (U/A)** • **Not specified (N/S)**

II. Turkey SFM Project Terminal Evaluation Approach

15. The Terminal Evaluation is initiated by UNDP, which is the GEF Agency for the project, in line with the monitoring and evaluation plan of the project. The evaluation was carried out as a collaborative and participatory exercise, and identifies key lessons and relevant recommendations necessary to document the achievement and support the sustainability of project results.

A. Terminal Evaluation Purpose, Objectives and Scope

16. The **purpose** of the evaluation is to provide an independent external view of the progress of the project at its completion, and to provide feedback and recommendations to UNDP and project stakeholders.

17. The **objective** of the Terminal Evaluation is to:

- Identify potential project design issues;
- Assess progress toward achievement of expected project objective and outcomes;
- Identify and document lessons that can both improve the sustainability of benefits from this project and aid in the overall enhancement of UNDP and GEF programming in the region; and
- Make recommendations necessary to help consolidate and support sustainability of the project results.

18. The **scope** of the evaluation is as outlined in the TORs. The evaluation compares planned outcomes of the project to actual outcomes and assesses the actual results to determine their contribution to the attainment of the project's overall objective. It also evaluates the efficiency of project management, including the delivery of outcomes and activities in terms of quality, quantity, timeliness and cost efficiency as well as features related to the process involved in achieving those outputs and the impacts of the project. The evaluation also addresses the underlying causes and issues that contributed to any targets not adequately achieved.

19. The evaluation covers the following aspects of the project, integrating the GEF's Operational Principles, as appropriate:

- Project design, development (including decision-making and gender mainstreaming), risk assessment / management, and preparation
- Stakeholder ownership and drivenness
- Project timing and milestones
- Implementation and execution arrangements, including GEF Agency oversight
- Stakeholder participation and public awareness
- Communications
- Partnership approach
- Work planning, financial management/planning, co-financing
- Flexibility and adaptive management
- Progress toward results outcomes and impacts
- Gender integration and mainstreaming in implementation
- Sustainability
- Catalytic role: Replication and up-scaling

- Monitoring and evaluation (project and results levels) compliance with UNDP and GEF minimum standards, including SMART criteria for indicators
- Lessons learned
- Impact and Global Environmental Benefits

20. In addition, the UNDP requires that all evaluations assess the **mainstreaming of UNDP programming principles**, which include:

- UN Development Assistance Framework (UNDAF) / Country Program Action Plan (CPAP) / Country Programme Document (CPD) Linkages
- Poverty-Environment Nexus / Sustainable Livelihoods
- Disaster Risk Reduction / Climate Change Mitigation / Climate Change Adaptation
- Crisis Prevention and Recovery
- Gender Equality / Mainstreaming
- Capacity Development
- Rights-based Approach

21. Evaluative evidence will be assessed against the main UNDP and GEF evaluation criteria, as identified and defined in Table 2 below:

Table 2. GEF and UNDP Main Evaluation Criteria for GEF Projects

Relevance
• The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time. • The extent to which the project is in line with the GEF Operational Programs or strategic priorities under which the project was funded. • Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances.
Effectiveness
• The extent to which an objective has been achieved or how likely it will be achieved.
Efficiency
• The extent to which results have been delivered with the least costly resources possible; also called cost-effectiveness or efficacy.
Results
• The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. • In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer-term impact including global environmental benefits, replication effects and other local effects.
Sustainability
• The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion: financial risks, socio-political risks, institutional framework and governance risks, environmental risks • Projects need to be environmentally, as well as financially and socially sustainable.

B. Principles for Design and Execution of the Evaluation

22. The evaluation was conducted in accordance with the GEF M&E Policy,[1] which includes the following principles for evaluation: Credibility, Utility, Impartiality, Transparency, Disclosure, and Participation. The review was also conducted in line with United Nations Evaluation Group norms and standards.[2] The review provides evidence-based information that is credible, reliable and useful. The review follows a participatory and consultative approach ensuring close engagement with government counterparts, and with the UNDP project teams. The review was carried out in accordance with the guidance outlined in the UNDP Handbook on Planning, Monitoring and Evaluating for Development Results,[3] and in accordance with the evaluation guidance in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-GEF projects.

C. Evaluation Approach and Data Collection Methods

23. The review methodology was based on a participatory mixed-methods approach, which included two main elements: a) a desk review of project documentation and other relevant documents; and b) interviews with Key Informants conducted remotely, as it was not possible to travel to Turkey to conduct an in-country field mission due to the global coronavirus pandemic. The desk review was begun in April 2020, and the Key Informant interviews were completed in May 2020.

24. The terminal evaluation matrix, describing the indicators and standards applied with respect to the evaluation criteria, is attached as Annex 3 to this report. The interview guide used to provide a framework for qualitative data collection is included as Annex 4 to this evaluation report. The standard UNDP-GEF rating tables and rating scale applied is included as Annex 5 to this report. The list of individuals interviewed is included as Annex 6 to this report.

25. The collection of evaluative evidence was based on two primary data collection methodologies:

1. Desk review of relevant documentation (list of documents reviewed included as Annex 7 to this report).
2. Semi-structured interviews with Key Informants

26. As such, the terminal evaluation process involved four main steps, some of which overlapped temporally:

1. Desk review of project documentation
2. Organization and conducting of interviews
3. Analysis of data, follow-up to address any data gaps, and drafting of the evaluation report, then circulation to evaluation participants for additional feedback and input
4. Finalization of the evaluation report and follow-up with the project team and stakeholders

27. Key stakeholders targeted for interviews were intended to represent the main project stakeholders, partners and beneficiaries, and those most knowledgeable about various aspects

[1] See http://www.thegef.org/gef/Evaluation%20Policy%202010.

[2] See http://www.uneval.org/normsandstandards/index.jsp?doc_cat_source_id=4.

[3] See http://www.undp.org/evaluation/handbook.

of the project. The evaluation also sought to include a representative sample covering all different types of stakeholders, including national and local government, and civil society.

D. Limitations to the Evaluation

28. All evaluations face limitations in terms of the time and resources available to adequately collect and analyze evaluative evidence. For the Turkey SFM project terminal evaluation, the main limitation was the inability to travel to Turkey to visit the project field sites in May 2020 to interview a wider range of stakeholders, and verify the project results in person. To overcome this limitation, wherever possible the evaluation has tried to draw on multiple data sources for triangulation of evaluation findings. Altogether the evaluation challenges were manageable, and the evaluation is believed to represent a fair and accurate assessment of the project.

III. Project Overview

A. Turkey SFM Project Environmental Context

29. This section contains a brief description of the project development context. It draws from the project document, which contains more extensive and detailed information.

30. The mountain forests of the Mediterranean region have some of Turkey's oldest trees (500-1,000 years old). These forests constitute the largest forest carbon repository in West Asia and the second largest in Southern Europe. They store an estimated 304 tCO_2/ha in above-ground biomass, and 54 tCO_2/ha below ground; under natural conditions, their net annual sequestration rate is 7 tCO_2/ha/year . The total carbon pool in Turkey's Mediterranean forests is currently estimated at over two billion tC. Illicit logging, fires, and pests cause annual sequestration rates to fluctuate: in 1990 the forests were a 41.7 million tCO_2 net sink; by 2000, the net forest sink increased to 62.3 million tCO_2 , remaining stable or slightly increasing for the next several years before going down in 2006; this was followed by a slight increase in the period 2007-2008 due to the introduction of controls on logging; but fell sharply in 2009 and 2010 due to widespread forest fires.

31. Turkey's Mediterranean forests are important for their biodiversity due to woody species richness, habitat diversity, wildlife, butterfly species richness, plant species richness and the existence of enclaves. Turkish Caucasus and Mediterranean areas support the most diverse forest ecosystems in Turkey. Coniferous forests and maquis formations are the main forest types within the project area. *Pinus nigra subsp. pallasiana* (1000-1800 m), *Cedrus libani* (900-1800 m), *Abies cilicica* (1500-1800 m), *Juniperus excelsa*, *Juniperus foetidissima* (1700-2000 m). *Cedrus libani* is an eastern Mediterranean endemic, with its main distribution and the most intact forests in the project area. *Abies cilicica subsp. cilicica* is another endemic taxa distributed in the Eastern Mediterranean part of Turkey. More than 40 additional *sclerophyllus* species contribute to the maquis formation. Dominant species of the maquis formations are *Arbutus andrachne*, *Laurus nobilis, Myrtus communis, Olea europaea var. sylvestris, Phillyrea latioflia, Pistacia lentiscus, P. terebinthus, Styrax officinalis, Quercus coccifera, Q. infectoria and Myrtus communis*.

32. Given the small percentage of deciduous forests (<5%) within the project area, these should be considered a significant element of forest biodiversity due to their contribution to habitat diversity. Dominant deciduous species include: hornbeam (*Carpinus orientalis)*, hop

hornbeam (*Ostrya carpinifolia)*, oaks (Q*uercus cerris, Q. vulcanica, Q. pubescens, Q. robur, Q. libani, Q. trojana, Q. petrea pinnatiloba*), and many maple species (*Acer hyrcanum, A. platonoides, A. campestre, A. monspessulanum*).

33. The project area covers portions of four centers of plant diversity and endemism as defined in "Centers of Plant Endemism":

- South West Asia 12 Anti-Taurus Mountains and Upper Euphrates (Irano-Turanian),
- South West Asia 15 Isaurian, Lycaonian and Cilician Taurus (Mediterranean),
- South West Asia 16 South-west Anatolia (Mediterranean),
- South West Asia 17 Levantine Uplands (Mediterranean).

34. According to the Important Plant Areas study, there are 36 Important Plant Areas covering 2,381,540 hectares in the project area. The western and eastern Taurus together support a total of 2,500-3,000 plant taxa, including more than 1,000 endemics. There are an estimated 1,177 endangered plant taxa in the region, along with 128 widespread endemics and 139 restricted range endemics.

35. The mountains are rich in large mammals, largely due to the difficult terrain, which limits the extent of human impact. Brown bear (*Ursus arctos*), gray wolf (*Canis lupus*), golden jackal (*Canis aureus*), lynx (*Lynx lynx*), and caracal (*Caracal caracal*) are the main carnivores of interest. Wild goat (*Capra aegagrus*) and fallow deer (*Dama dama*) are also found.

B. Forest Management Context in Turkey

36. Almost all of Turkey's forests (almost 99%) belongs to the state. The GDF is the institution responsible for forest management in Turkey. GDF's fundamental mission is to protect forest resources against any threats and dangers, to enhance forest resources in a ecologically-friendly manner and to achieve sustainable forest management at a level that will provide far-reaching sustainable benefits for society while maintaining ecosystem integrity. To fulfill this mission the GDF works at central and local level. At the central level, GDF has 21 departments. Centrally, GDF's Forest Management and Planning Department is directly responsible for the preparation of forest management plans. At the local level, the GDF includes 27 Regional Directorates, each of which is further sub-divided into five or more Forest Enterprise Directorates (FEDs); altogether, there are 249 FEDs in Turkey. A final hierarchical level is that of Forest Enterprise Sub-Directorates, where 10-year forest management plans developed at FED level are implemented.

37. Historically the main and often sole purpose of forest management in Turkey was timber production. However, the last 10 -20 years have seen the beginnings of a paradigm shift in forest management. There have been important developments concerning the integration of sustainable forest management criteria into forest management. Services other than timber production have started to be considered under the concept of "functional forest management planning." This process was initiated after the 1993 Ministerial Conference for the Protection of Forests in Europe in Helsinki (also known as the "Pan-European Forest Process"). Subsequent to these initial steps, GDF began work on development of "Sustainable Forest Management Criteria" in 1999. Following the integration of sustainable forest management criteria into forest management, the forest management planning approach has also changed, and services other than timber production were integrated into the forest management planning process.

38. Although the GDF has adopted a policy towards forest management planning that enables the integration of services other than timber production, such as biodiversity and climate change mitigation / adaptation, a lack of technical expertise was a limiting factor for full implementation of this approach. The institutional capacity and legal framework needed to be improved for planning efforts to make functional management truly effective.

C. Problems the Turkey SFM Project Seeks to Address

39. Currently, the main threats to Mediterranean forests derive from anthropogenic wildfires, unsustainable fire wood collection by local villagers, illicit timber harvests, and pests. These threats have impacts on multiple forest values associated with the ecosystem goods and services which they provide. Of particular interest in the context of the project are damages related to the loss of globally significant ecosystem services associated with climate change mitigation and biodiversity.

40. Fuelwood removals: Fuelwood removals may be broken down into three main categories: (i) subsidized timber sales, (ii) illicit logging, and (iii) collection of residuals. Subsidized timber sales are discussed in the baseline section below. In addition to subsidized, legal fuel wood removals, annual commercial illegal logging across Turkey is estimated at around 71,000 m³. However, commercial illegal logging appears to be on a downward trend in recent years. Commercial illegal logging is dealt with by the Government through baseline programs, including tightening of controls over companies, increasing penalties and improving prosecution for malfeasance.

41. The amount of legally procured fuelwood (24,338 m^3 as of 2009) should be increased by about 30% (i.e. almost 7,500 m^3) in order to account for illicit logging in the pilot sites. Illicit logging is known to have decreased dramatically in the past two decades, both in Turkey as a whole and in the Mediterranean region in particular.

42. In addition, forest villagers are allowed to collect the residuals of timber harvest and forest tending as fuelwood. While this is technically not an illicit action, neither is it a formal, planned and recorded mode of utilization. Based on the observations and experiences, this type of fuelwood collection is estimated at about one fourth of the quantity of fuelwood formally provided to forest villagers as subsidized sales, i.e., 25% of 24,000 m^3, or about 6,000 m^3.

43. Altogether, forest villagers in the pilot demonstration sites are estimated to consume some 38,000 m^3 of fuelwood annually.

44. Pests: In Turkey's Mediterranean forests, about 45 to 50 species of insects and harmful fungi damage trees to varying degrees of severity in an area of approximately two million hectares (which makes up 10% of the whole forest cover) every year. While some of these cause damage to all organs of the tree, particularly to its leaves, others, especially bark beetle (Scolytinae) as well as other xilofages, cause individual, collective and even mass tree deaths in forests that have become vulnerable due to one reason or another. Forests of coniferous trees are more significantly affected by harmful factors, since they are more sensitive to pests and other sorts of damages. Areas most affected by pests are the monoculture forests of coniferous species, particularly red pine, which have been planted on large areas in order to meet the demand for wood raw material. It is estimated that every year, approximately one million m³ of wood products are wasted because of pests.

45. Fires: About 12 million ha of Turkey's forested lands are subject to, and under threat of, forest fires. Every year thousands of hectares of forest land are consumed, resulting in millions of dollars in suppression costs and causing great damages in lost timber, real estate and recreational values, and even loss of life. In the last ten years, average annual suppression cost and damages due to fires have been $173 million USD and $40 million USD, respectively. Fire statistics kept by the GDF since 1937 show that a total of 90,000 fires have burned approximately 1.6 million hectares of forest land. This represents 1,200 fires on 22,000 hectares annually, with an average area burned per fire of 18 hectares. Large-scale fires in 2004, 2009, and 2010 destroyed over 10,000 ha of high conservation value forests, including Calabrian pine, which represented a significant loss of habitat of endemic and threatened forest species. About 65% of Turkey's forest fires occur along a 160 km-wide belt along the Mediterranean and Aegean regions, extending from Antakya in the south to Istanbul in the northwest.

46. Recent fire statistics indicate that the majority of forest fires in Turkey are caused by people. Fires having anthropogenic origins account for 95% to 97 %of all fires, while natural causes are responsible for the remaining 3 to 5%. Of the fires caused by people, 13% are classified as arson, 45% as negligence and carelessness and 37% as 'unknown'. Arson fires are set for various reasons. Fires are set to clear land for farming, to release potash into the soil to improve grazing or by honey collectors.

47. The Prodoc identifies the long-term solution to addressing sustainable forest management in Turkey as: *"to secure the highly valuable Mediterranean forests by taking a landscape approach to conserve carbon pools and biodiversity."* The Prodoc then identifies eight "key thematic areas to be improved" in order to achieve the long-term solution:

- Enabling environment for multiple use forest management
- Forest land management and planning (excluding protected areas)
- Protected area systems management and biodiversity conservation
- Forest information management / inventory
- Forest fire management and control
- Pest control
- Fuelwood removals
- Silviculture

48. The project strategy and framework is therefore designed to address the main threats, through targeting these eight key thematic areas.

D. Turkey SFM Project Description and Strategy

49. As stated in the Prodoc, *"The project objective is to promote an integrated approach to management of forests in Turkey, demonstrating multiple environmental benefits in high conservation value forests in the Mediterranean forest region."* The project is structured in three components, consisting of 13 outputs:

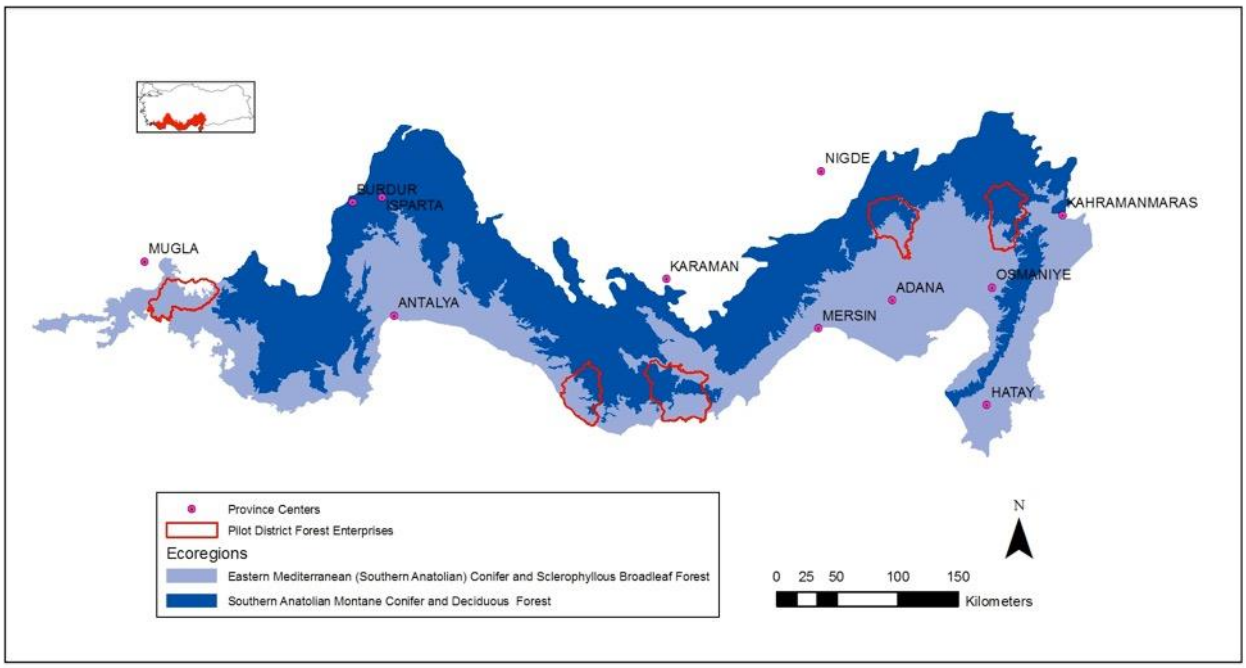
- **Component 1: Policy and institutional framework for integrated forest management within the landscape**

- Output 1.1. A LULUCF unit in GDF with specialized capacities and tools to design, implement and monitor efforts to conserve and enhance Turkey's forest carbon stocks
- Output 1.2. Regulatory and methodological revisions to enable accounting for multiple benefits arising from Turkey's forests
- Output 1.3. Initial development and deployment of MRV for Turkey's Mediterranean forests
- Output 1.4. Capacity building of national- and field-level foresters in forest biodiversity conservation and monitoring and LULUCF forest carbon monitoring and accounting
- Output 1.5. A Nationally Appropriate Mitigation Action (NAMA) covering the forestry sector

- **Component 2: Implementation of forest-based GHG mitigation and carbon sequestration tools within landscape**
  - Output 2.1. Integrated fire management systems at FED level, emphasizing fuel management, consisting of (i) a fire management information system (wildfire hazard and risk analysis; fire danger rating and early warning), (ii) fire prevention planning involving local communities and the general public, and (iii) decision support for wildfire preparedness with streamlined collaboration between responsible authorities (forest department, and fire and emergency services)
  - Output 2.2. Enhanced silvicultural efforts—including carbon-focused thinning (5,000 ha), forest rehabilitation to increase crown cover in selected areas from 10-15% to 50% (3,000 ha).
  - Output 2.3. Micro-crediting program to support access to solar heating and alternative heating technologies / implementation of more efficient insulation technics in pilot areas as a means to avoid illicit cutting of native forests)
  - Output 2.4. Integrated pest management system for forest management including establishment of two pest biological control and early warning centers in the Mediterranean region equipped with technologies for field observations and early problem identification as well as a laboratory dedicated to research and training on natural enemies
  - Output 2.5. Carbon stock and stock change measurements taken at pre-selected monitoring sites within the pilot areas using the methodology designed in Output 1.3. Carbon protocols completed before, during and after the implementation of enhancement and mitigation efforts (Outputs 2.1-2.4). Data transferred to the centralized LULUCF-Forest Carbon data-base (Output 1.4). Precision of carbon benefits generated by the project is improved each time the measurements are taken.
- **Component 3: Strengthening protection of high conservation value forests in Mediterranean landscape**
  - Output 3.1 High nature value forests covering 79,960 ha in the five targeted forest districts are protected
  - Output 3.2 Buffer zones and corridors embedding protected areas and protected forests within the wider production landscape
  - Output 3.3: Site-level partnerships for ecotourism and NWFP management established

50. The project is focused in Turkey's Mediterranean forests ("the project area"), which cover an area of 9.4 million hectares in total, extending from the southwest of Turkey to the Amanos Mountains in the east of the country (see Figure 1). The project area is dominated by the Taurus Mountains, which extend from west to east in four main chains: Western Taurus Mountains, Middle Taurus Mountains, Eastern Taurus Mountains and Amanos Mountains. Aladağlar (3756 m.) is the highest point of the Taurus Mountain ranges. Structurally, these are predominantly coniferous forests, accompanied by maquis formations along the coastal areas. Coverage of deciduous forests is less than 5%. The Mediterranean forests are moderately fragmented due to past logging activities, yet in some parts (especially in the southernmost regions) relatively large continuous forest tracts remain. Mediterranean forests are listed as one of the global biodiversity hotspots of the world due to their exceptional biodiversity richness. Approximately five per cent of the flora of Mediterranean Basin is endemic.

Figure 1 Turkey SFM Mediterranean Forests Project Area and pilot Forest Enterprise Directorates (FED) from west to east (Koycegiz FED, Gazipasa FED, Gulnar FED, Pos FED, Andirin FED)



51. The project strategic results framework, with expected indicators and targets, is included in the project document (pp. 37-39). The project results framework represents the primary foundational element for assessing project results (progress toward the expected outcomes and objective) and effectiveness.

52. The project officially commenced in July 2013 at Prodoc signature, implementation began in December, 2013 with the inception workshop, and the project was completed January 22, 2020. The project is a multi-focal area project with the biodiversity and climate change mitigation focal areas combining to link through the SFM program. The project has GEF funding of $7.12 million USD, and had actual co-financing of $16.92 million USD, for a total project cost of $24.04 million.

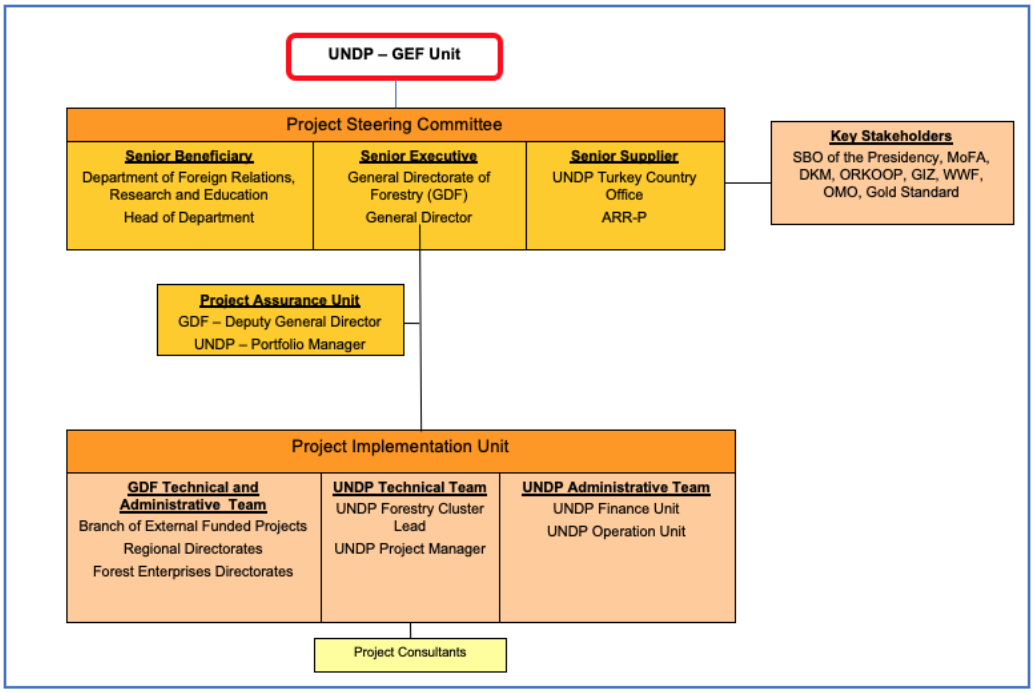
E. Implementation Approach and Key Stakeholders

i. Implementation Arrangements

53. The Turkey SFM project is executed under UNDP's NIM modality, with the GDF as the main executing partner. UNDP is the GEF agency that supported execution and implementation, and is responsible for oversight of delivery of agreed outputs as per agreed project work plans, financial management, and for ensuring cost-effectiveness. The UNDP Turkey Country Office supported project implementation activities in accordance with UNDP rules and procedures and in line with the GEF requirements. As per the Prodoc, UNDP provided quality assurance and oversight, primarily through the supervision of the UNDP Turkey Country Office environmental focal point. UNDP also acted as the *"Senior Supplier"* (per standard UNDP terminology), serving on the Project Board (along with the Senior Executive, GDF, and Senior Beneficiary, MoFWA). Financial management, and other key tasks such as contracting of project staff and consultants, was handled via standard UNDP procedures. The UNDP Turkey Country Office was also responsible for ensuring project accountability, transparency, effectiveness and efficiency in implementation. UNDP provides the Implementing Partner with the major support services for the activities of the project in accordance with UNDP corporate regulations, such as: (i) Identification and/or recruitment of project personnel; (ii) procurement of goods and services; (iii) financial services.

54. Figure 2 below provides and overview of the originally planned management arrangements and structure, although the structure of the PSC was adjusted slightly during implementation.

Figure 2 Turkey SFM Project Management Arrangements *(Source: Project Reports)*



55. The project oversight structures included the Project Steering Committee, though this was not a multi-stakeholder body consisting of the full range of project stakeholders, it was only

composed of the primary relevant government institutions, the GDF and MoFWA (which GDF is part of), and UNDP. Good practice for UNDP and GEF projects is for projects to have a multi-stakeholder PSC, to enhance transparency, communication, coordination, and stakeholder engagement. Fortunately in the case of the Turkey SFM project, these aspects of stakeholder engagement were not problematic, thanks to the fact that the project activities were carried out in a highly participatory manner.

56. The role of the PSC, as summarized in the project inception report, was "to provide general guidance, supervision and support for the implementation of Project activities, and coordination among the related organizations." Further details on the specific duties of the PSC are outlined in the Prodoc and project inception report.

ii. Key Stakeholders

57. The stakeholders for the project are the key public institutions related to forest management, plus forest resource users. The Prodoc includes a full analysis of project stakeholders, which can be found beginning on p. 50 of the Prodoc. The most significant stakeholder is the General Directorate of Forestry, which is the national institution responsible for forest management in Turkey. The other key stakeholder identified in the project document are listed below:

- The Ministry of Foreign Affairs
- The Ministry of Development
- The Ministry of Forestry and Water Affairs, General Directorate of Forestry
- CSO - Chamber of Forest Engineers
- CSO – The Central Union of Turkish Forestry Cooperatives
- CSO – Nature Conservation Center
- CSO – WWF Turkey
- GIZ
- Gold Standard

F. Key Milestone Dates

58. Table 3 below indicates the key project milestone dates. The project was planned for a 60-month implementation period.

Table 3 Turkey SFM Project Key Milestone Dates[4]

Milestone	Expected Date [A]	Actual Date [B]	Months (Total)
1. PIF Submission	N/A	February 22, 2011	
2. GEF Secretariat PIF Review	N/A	February 28, 2011	0 (0)
3. Revised PIF Submission	N/S	March 18, 2011	0.5 (0.5)
4. GEF Secretariat PIF Second Review	N/A	March 24, 2011	0.5 (1)
5. GEF Secretariat PIF Final Review – PIF Technical Clearance	N/S	April 5, 2011	0.5 (1.5)
6. STAP Review	N/S	April 20, 2011	0.5 (2)
7. PPG Approval	N/S	May 5, 2011	0.5 (2.5)
8. GEF Council Approval	N/S	May 26, 2011	0.5 (3)
9. CEO Endorsement Request First Submission	November 2012	December 17, 2012	19 (22)
10. GEF CEO Approval	January 17, 2013	December 28, 2012	0 (22)
11. Implementation Start (UNDP Prodoc signature)[5]	March 2013	July 23, 2013	7 (29)
12. PMU Established (project staff contracted)	March 2013	September-November 2013	3 (32)
13. Inception Workshop	March 2013	December 16-17, 2013	2 (34)
14. Mid-term Evaluation	January 2016	February 2018	50 (84)
15. Project Operational Completion	July 23, 2018	January 22, 2020	23 (107)
16. Terminal Evaluation	May 2018	May 2020	4 (111)
17. Project Financial Closure	December 31, 2018	December 31, 2020	7 (118)

59. The PIF was first submitted to the GEF Secretariat in February 2011, and the project's financial closure is anticipated in December 2020, a total documented project lifespan of 118 months, or 9 years and 10 months. The project began implementation in December 2013 with the inception workshop and establishment of the PMU. This represents a total project development and approval phase of approximately 34 months, or almost three years – not including the time spent on concept development prior to submission of the PIF. Twelve months elapsed from GEF CEO Endorsement to the inception workshop, a period that should normally

[4] Sources: 1.A. Not applicable; 1.B. GEF Online PIMS; 2.A. Not applicable; 2.B. GEF Secretariat Review Sheet; 3.A. Not specified; 3.B. Submission date on Revised PIF document; 4.A. Not applicable; 4.B. GEF Secretariat Review Sheet; 5.A. Not specified; 5.B. GEF Secretariat Review Sheet; 6.A. Not specified; 6.B. STAP Review Sheet; 7.A. Not specified; 7.B. GEF Online PIMS; 8.A. Not specified; 8.B. GEF Council Documents; 9.A. Within 18 months of PIF approval; 9.B. Re-submission date on CEO Endorsement Request; 10.A. Within 30 days of submission, as per GEF business standards; 10.B. GEF Online PIMS; 11.A. Within 3 months of CEO Endorsement; 11.B. UNDP Prodoc Signature Date; 12.A. Within 3 months of Prodoc signature; 12.B. Project inception report; 13.A. Within 3 months of Prodoc signature; 13.B. Project inception report; 14.A. 30 months after Prodoc signature; 14.B. Date of mid-term review report; 15.A. 2019 PIR; 15.B. 2019 PIR; 16.A. Within 3 months prior to project completion; 16.B. Terminal Evaluation data collection and planned field mission (field mission was canceled due to global pandemic); 17.A. End of fiscal year in year of project operational completion, per standard UNDP business practice; 17.B. End of fiscal year in year of project operational completion, per standard UNDP business practice.

[5] Note: The project inception workshop includes a very helpful and insightful detailed summary of the specific steps and dates of actions taken to operationalize the project during 2013, from the GEF CEO Endorsement in December 2012 to the project Inception Workshop in December 2013.

be limited to three months. The PPG phase required the full allowed 18 months (actually 19, including required re-submissions of the CEO Endorsement Request).

60. The mid-term review would have been expected in January 2016 (30 months after Prodoc signature), but the mid-term review was not conducted until the 4th quarter of 2018, with the mid-term review final report dated February 2018.

61. The project operational completion was expected in July 2018, but was extended 18 months to January 2020. The terminal evaluation was conducted after project completion, in May 2020, with the terminal evaluation final report dated in September 2020.

62. The face that the project required 18+ months for the project development phase is one reason that the project lifespan was so long. Another issue was that the inception period of the project, from GEF CEO Endorsement to the project inception workshop, was particularly long, taking 12 months, when GEF and UNDP standard business practices are that the inception workshop should be completed within 3 months of GEF CEO Endorsement (or at the very least, within Prodoc signature).

63. Once under implementation, the project faced some challenges in terms of external contextual factors, most notably the coup in Turkey in July 2016. This caused many issues for the project, and therefore the project required an extension beyond the originally planned completion date. In total the project was extended for 18 months beyond the originally planned completion.

EVALUATION FINDINGS AND CONCLUSIONS

IV. Relevance

64. With respect to **relevance**, the project is considered ***relevant / highly satisfactory***, as the project clearly supports national priorities related to sustainable forest management, biodiversity conservation, and climate change. The project further aligns with UNDP country priorities for Turkey, and supports Turkey's implementation of the UNFCCC, CBD, and other relevant multilateral conventions. The project also conforms with GEF focal area strategies and priorities for GEF-5.

65. The project design and strategy were appropriate and highly relevant, especially in terms of implementation aspects, as further discussed in Section V on Efficiency. There were a few minor lessons relating to project design and planning, as further discussed in Section IV.B below.

A. Relevance of the Turkey SFM Project Objective

66. National Policies and Laws: As described in the Prodoc, the project was consistent with multiple national priorities and strategies. These included the National Climate Change Strategy, and National Climate Change Action Plan. The project is relevant to the implementation of multiple forestry-related laws in Turkey, including those directly related to forestry (Forest Law, Las on Support for the Development of Forest Villagers, Afforestation, National Parks Law, Hunting Law, establishment laws for the Ministry of Forestry and General Directorate of Forestry, and regulations for the implementation of these laws), and other related legislation (Environment Law, Range Law, Specially Protected Areas Law, Tourism Encouragement Law, Law on Protection of Cultural and Natural Values, Land Cadastre Law, and regulations for the implementation of these laws).

67. UNDP Country Priorities and Strategies: The project is in line with the UNDP Country Programme Document for Turkey, and associated Country Programme Action Plan. Per the Country Program Action Plan covering the period 2011-15, UNDP in environment and sustainable development cooperation will work to enhance national capacities and promote (a) mainstreaming sustainability principles, environment, climate change and energy efficiency and renewable energy into sectoral policies, plans and programmes at national, regional and local levels, (b) climate change adaptation and mitigation and carbon trading at national, regional and local levels, and (c) expanding access to environmental and energy services for the poor, vulnerable groups and others requiring special attention.

68. Relevance to GEF Strategic Objectives: The GEF has limited financial resources so it has identified a set of strategic priorities and objectives designed to support the GEF's catalytic role and leverage resources for maximum impact. Thus, GEF supported projects should be, amongst all, relevant to the GEF's strategic priorities and objectives. The project was approved and is being implemented under the strategic priorities for GEF-5 (July 2010 – June 2014).[6] The project's objective is directly in line with and supportive of the GEF-5 strategic objectives for biodiversity, climate change, and sustainable forest management, outlined in Table 4 below.

[6] For the focal area strategic priorities for GEF-5, see GEF Council document GEF/R.5/31, "GEF-5 Programming Document," May 3, 2010.

Table 4 GEF-5 Strategic Objectives Supported by the Turkey SFM Project

Objectives	Outcomes	Indicators	Core Outputs
BD-1: Improve Sustainability of Protected Area Systems	Outcome 1.1: Improved management effectiveness of existing and new protected areas.	Indicator 1.1: Protected area management effectiveness score as recorded by Management Effectiveness Tracking Tool	Output 1.1. New protected areas (number) and coverage (hectares) of unprotected ecosystems. Output 1.2. New protected areas (number) and coverage (hectares) of unprotected threatened species (number).
CCM-3: Renewable Energy: Promote investment in renewable energy technologies	Outcome 3.2: Investment in renewable energy technologies increased	Indicator 3.2: Volume of investment mobilized	Output 3.2: Renewable energy capacity installed
CCM-5: Promote conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry	Outcome 5.2 Promote Conservation and enhancement of carbon stocks through sustainable management of land use, land use change and forestry	Indicator 5.2: Hectares restored	Output 5.2 Number of tons of CO2 equivalent (tCO2e) avoided and/or sequestrated
SFM/REDD+-1: Forest Ecosystem Services: Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services	Outcome 1.3: Good management practices adopted by relevant economic actors.	Indicator 1.3.1: Services generated in forests. Indicator 1.3.2: Services generated in the wider landscape	Output 1.3: Types of services generated through SFM
SFM/REDD+-2: Reducing Deforestation: Strengthen the enabling environment to reduce GHG emissions from deforestation and forest degradation and enhance carbon sinks from LULUCF activities	Outcome 2.1: Enhanced institutional capacity to account for GHG emission reduction and increase in carbon stocks.	Indicator 2.1.1: Capacity to certify forest derived carbon credits	Output 2.2: National forest carbon monitoring systems in place (number)

69. Relevance to Multi-lateral Conventions: The project is relevant to multiple GEF-supported multilateral environmental agreements. With respect to the UNFCCC the project had intended to develop a forest-sector NAMA, though this was later justifiably adjusted to focus on other related aspects.

70. The project responds to a number of needs identified in Turkey's *Second National Communication under the United Nations Framework on Climate Change* (2010) namely (i) Establish natural ecosystems' monitoring system and conduct studies on climate change impacts

thereon; (ii) Based on the international experience in application of modern technologies, develop a system for consistent monitoring of the "LULUCF" sector, and assessment of GHG emissions from the sector; and (iv) Include carbon accumulation assessment in forest management plans. Further, in terms of the LULUCF sector, the national priorities were:

- Increase the amount of carbon sequestered in forests by 15% of the 2007 value by 2020 (14,500 Gg in 2007, 16,700 Gg in 2020)
- Reduce deforestation and forest damage by 20% of the 2007 values by 2020
- Limit the negative impact of land uses and changes such as forests, pastures, agriculture and settlements on climate change
- Strengthen legal and institutional structure for combating climate change with regard to land use and forestry

71. The project contributed to implementation of Turkey's *National Biodiversity Strategy (2010).* As outlined in the Prodoc, the National Biodiversity Strategy and the Key Biodiversity Areas report recognized that many ecosystems remain under-represented in the PA system, including Mediterranean forests. The total extent of forest protected areas in the Mediterranean districts amounts to just 5% of the areas of highest biodiversity significance -- well below the area needed to meet biodiversity conservation targets. The SFM project also supports implementation of Turkey's current National Biodiversity Strategy (2018-2028), even though the project was designed in advance of this strategy. This particularly highlights the project's relevance in the context of biodiversity in Turkey, and in terms of the CBD.

72. With respect to relevance to Turkey's implementation of the CBD, the project supports multiple Aichi biodiversity targets. These include:

- Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
- Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
- Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

B. Relevance of the Project Approach: Project Strategy and Design

73. Overall the project strategy and design is relevant to addressing the threats, and barriers identified in the project document. On the whole, the project strategy was well designed, especially with respect to efficient implementation arrangements. However, there are a couple of lessons worth mentioning about the project design, described below.

74. The project objective was primarily focused on Mediterranean forests, but many aspects of the project were also meant to replicated and scaled up to the national level. For some aspects this has proven more feasible, such as the fire Early Warning System, which is planned to be scaled up nationally in 2020 or shortly thereafter. The overall approach of integrated Forest

Management Plans is less scalable in the current Turkish context, and it would have been useful to more fully reflect this in the project design. As discussed further in Section VII.B on catalytic role, it is not feasible to put the same amount of time and effort into FMPs for all FEDs in Turkey as it was for the 28 FMPs developed under this project. Therefore this integrated forest management approach can only be scaled up slowly and piecemeal at the national level.

75. One other design issue was the sequencing of project activities. It would have been preferable if the SFM Criteria and Indicators had been developed as early in the project implementation as possible (rather than at the end), so they could have been fully incorporated in the FMP planning process.

76. Third, it would have been preferable for the project strategy to include a more conscious and dedicated effort to the institutionalization of project results within GDF. Institutionalization is necessary for sustainability, and this should be planned in the project design, in order to allow sufficient time and resources for this institutionalization process. This includes more widespread and extensive training, socialization of results, and integration of results into internal policies and procedures.

77. Fourth, the project design did include attention to socio-economic aspects, but these were not comprehensive or well-integrated into the project design, with limited follow-up. It would have been preferable if the socio-economic aspects had been more fully embraced in the early design and planning stages of the SFM project.

V. Project Management and Cost-effectiveness (Efficiency)

78. Project **efficiency** is rated ***satisfactory***. The project's adaptive management, communication, partnership, and reporting were strong points. UNDP, as the implementing agency, and GDF, as the executing agency, worked together closely in a robust and unified approach to achieving the project objective. Perhaps the project's single most important success factor was the integral relationship between the project and the GDF, the main beneficiary institution. The full stakeholder ownership by GDF, combined with a long-term policy strategy, provided the project a firm footing and fertile ground for achieving long-term outcomes. As one project participant stated, a key success factor was working with "a strong, independent institution, with a long-term vision." In addition, the project's partnership approach of leveraging civil society organizations, particularly the Nature Conservation Center, paid large dividends in terms of generating results with a highly efficient use of resources. Financial management procedures were in-line with international norms, and conformed to UNDP policies and procedures. Project management costs were in-line with the originally planned amount (8.43%), and project co-financing has exceeded (by 9%) the planned amounts. The project was originally planned for 5 years, and with a formal start in July 2013, it was expected that the project would have been completed in July 2018. The completion date of January 2020 represents an 18-month extension, which is long per the UNDP and GEF norms of 6-12 month extensions. The long extension was due to the many extenuating external circumstances (i.e. political instability at the national and global level) that affected implementation, and which required active adaptive management. On the other hand, the practical repercussions of these external circumstances were that the exchange rate between the Turkish lira and the US dollar shifted so that the project's budget in local currency increased by more than 330% from the time the project was

approved by the GEF until project completion. This was surely another significant project success factor, even considering that the project had many expenses denominated in USD.

A. Implementation, Including UNDP Oversight

79. As previously described in Section III.E.i on implementation arrangements, UNDP is the GEF Agency responsible for the project, and carried general backstopping and oversight responsibilities. UNDP played multiple key roles in successful implementation and execution of the project.

80. Implementation by UNDP is considered **satisfactory**. UNDP provided good support to keep the project moving ahead despite a highly challenging and dynamic external context. There were a number of adaptive management measures applied by UNDP, such as applying the Harmonized Approach to Cash Transfer (HACT) modality for GDF in order to improve the efficiency of project activities under Component 2 related to the grant projects for ecotourism and NWFPs, and for development of the DSS software.

81. During the project period there were internal changes in the UNDP country office structure and staff supporting the project, but throughout these changes good handover procedures were followed, and the key staff supported the project throughout their changing roles. These changes do not appear to have hampered the project in any significant way.

82. As previously mentioned in Section III.E.i on implementation arrangements, one area for the UNDP Turkey Country Office to strengthen for future projects is to ensure that project implementation arrangements include a multi-stakeholder PSC to provide strategic guidance and oversight.

B. Execution (Project Management)

83. The project is executed under UNDP's NIM modality, with the GDF of the Ministry of Forest and Water Affairs (MoFWA) as the key national executing partner. In practice, project management was handled by a project manager contracted directly by UNDP, working on behalf of the Government of Turkey. Project execution is considered **satisfactory**. The Turkey SFM project PMU was characterized by highly professional project management, outstanding technical qualifications, timely reporting, strong engagement of national partners, and transparent communication.

84. One aspect of project execution that was particularly innovative, efficient, and effective, was the arrangement for the NGO Nature Conservation Center (DKM) to be primarily responsible for all project activities under Component 3 (also under the HACT modality). DKM already had a long-standing working relationship with the GDF. In addition, DKM has a high level of project management capacity and technical expertise, as demonstrated through multiple previous initiatives. Therefore it was a perfect fit for DKM to take on responsibility for the project activities under Component 3. The project team provided good coordination amongst all partners, so that there were no major issues in terms of sequencing or coordination of activities.

85. One aspect of the project execution that worked well was that the project contracted technical experts (consultants) who were responsible for various project components and activities. These experts were embedded within GDF, working closely with the GDF's experts. As described by project stakeholders, *"The project had a technical team that was made up of some*

of the best experts in Turkey, on fire, forest management planning, etc. We made arrangements so that the technical team was working directly with the GDF. The fire consultant worked directly with the fire division. The forest management planning consultant was working with the forest management planning division. But with the project team's support, they could coordinate, and produce forest management plans." This execution arrangement is considered a positive lesson from the project.

86. Undoubtedly one of the keys to the project's success has been the strong country ownership and stakeholder engagement from the GDF side. The GDF is a strong and stable institution in Turkey, with a long policy history and vision for long-term sustainable forest management. Multiple project participants highlighted the ownership and buy-in by GDF leadership in relation to the overall project objective as a critical factor in the project's success.

C. Partnership Approach and Stakeholder Participation

87. On the whole the project's partnership approach can be characterized as very strong. The two main elements of this approach are discussed at various points throughout this report, including the immediately preceding section. These are namely the project's excellent relationship and engagement with GDF, such that in fact the project was almost fully mainstreamed within GDF. The other positive partnership aspect was the project's engagement with NGOs, particularly the delegation of Component 3 activities on biodiversity conservation to the NGO Nature Conservation Center (DKM). However, the project worked closely with other NGOs as well on other activities. The project's strong technical support relationship with the Yale University School of Forestry, in the United States, was another highlight of the project's work.

88. In terms of stakeholder engagement and participation at the local level, the project activities did involve multiple activities that did engage local communities, particularly with respect to ecotourism development, and NWFP management planning. However, these aspects of the project could use additional follow-up, and further work. According to project participants, the GDF has an ecotourism division, with minimal staffing, and it is anticipated that the GDF will continue working on and addressing ecotourism within Turkish forests. Nonetheless, there are few if any concrete plans for further follow-up on the work initiated by the project with local communities on ecotourism and NWFPs. The sustainability of these activities is one of the weakest aspects of the project's results.

D. Communication and Outreach

89. The project's communication, media and outreach activities and outputs were one major strength of the project, with multiple notable highlights. The project utilized a range of communication methods and media types, such as social media, technical reports, and videos. The project produced multiple videos that have been posted on YouTube for general viewing; the final summary video for the project can be found here: https://www.youtube.com/watch?v=CQvfUXQT0Q8. Some examples of the project's high quality technical reports are indicated in later Section VI covering the project's results. The project also included innovative approaches, such as holding a photography contest in April 2018.

90. One particularly impressive aspect of the project's communications was how the project made a significant effort to ensure that all major printed outputs were produced in English as

well as Turkish. This will undoubtedly increase the accessibility to the project's results by a wider audience, and will increase the influence of the project beyond Turkey.

E. Flexibility and Adaptive Management

91. Flexibility is one of the GEF's ten operational principles, and all projects must be implemented in a flexible manner to maximize efficiency and effectiveness, and to ensure results-based, rather than output-based approach. Thus, during project implementation adaptive management must be employed to adjust to changing circumstances.

92. Flexibility and adaptive approaches were fully required during implementation of the Turkey SFM project, due to a dynamic external context. In particular, a political coup in the summer of 2016 during project implementation slowed many project activities, and forced the project to re-route some project activities.

93. One example of the project's adaptive management relates to Output 1.5. As per the Prodoc, the project was to prepare a NAMA covering the forestry sector. However, during implementation it was determined that the relevance of this activity had decreased since the project design phase. Therefore, in line with the Paris Agreement and the guidance of the Ministry of Environment and Urbanization, and the focal point for UNFCCC in Turkey, it was decided to focus on the LULUCF sector Nationally Determined Contributions (NDC) with a stronger MRV system.

94. In addition, following the MTR, some adjustments were made to the project approach, including a revision to some results framework indicators. For example, the indicator relating to results under Output 1.5 was updated to reflect to true scope of project activities.

F. Financial Planning by Component and Delivery

95. The breakdown of project GEF financing is indicated in Table 5 below. Additional details on project finances are included in tables in Annex 8. The total GEF-allocation was $7,120,000. Of this, $780,000 (11.0% of the total) was planned for Component 1, Component 2 was budgeted at $3,974,270 (55.8%), and Component 3 was budgeted at $1,765,730 (24.8%). Project management was budgeted at $600,000 or 8.4% of the total.

Table 5. Project Planned vs. Actual Financing ($ USD)

	Planned amount	Share of total	Actual amount	% of actual amount	% of original planned
Component 1	780,000	11.0%	749,602	10.5%	96.1%
Component 2	3,974,270	55.8%	3,983,114	55.9%	100.2%
Component 3	1,765,730	24.8%	1,787,285	25.1%	101.2%
Project Coordination and Management	600,000	8.4%	600,000	8.4%	100.0%
Total	7,120,000	100.0%	7,120,000	100.0%	

Sources: Project Document for planned amount; project financial documents provided by UNDP for actual amounts.
***Note:** The project document includes a detailed M&E budget, but the project design did not include a specific component on M&E activities, and in the project's total budget and workplan, funding for M&E activities was distributed across the project components.*

96. The project was originally planned for 60 months (five years). Some projects start mid-year, and therefore the planned budget does not correspond to calendar years. Although the project received GEF CEO Endorsement in December 2012, the project inception workshop was not held until December 2013 (see previous Section III.F on Key Milestone Dates for additional

information). Therefore, in practical terms, the calendar year beginning January 2014 could be considered the first year of the project, although the project did have some expenditures in 2013 associated with the start-up phase of the project.

97. The project had annual budget revisions to update the next year's budget planning relative to actual expenditures to that point.

98. Figure 3 show the percentage planned and actual allocation of budget by component. The breakdown of actual expenditure by component is roughly in-line with planned expectations, with slightly less funding spent for Component 1 than planned, and slightly more funding spent for Component 3 than planned. Project Management expenditure was exactly in-line with the planned amount, which was 8.4% of GEF funding. The project had annual financial audits.

99. As previously discussed, the project was originally planned for 5 years; with UNDP Prodoc signature in July 2013, the project was expected to be completed in July 2018. In fact, the project was completed in early 2020, which is 18 months longer than anticipated. There were numerous external circumstances that delayed and slowed the project's progress over time, such as the political instability in the summer of 2016. However, one positive side effect of the external factors was a change in the exchange rate of the local currency vs. the USD; the exchange rate between the Turkish lira and the US dollar shifted by more than 330% from the time the project was approved by the GEF until project completion. The actual average exchange rate over the life of the project has not been calculated as part of this evaluation, but this weakening of the Turkish lira increased the available project funds in local currency terms. The project's long life may be partially due to the fact that the project may not have been able to spend the budget in USD terms as rapidly as planned, even if it was spending at a higher rate than planned in local currency terms.

Figure 3. Component Share of Total, Planned vs. Actual Budget Allocation

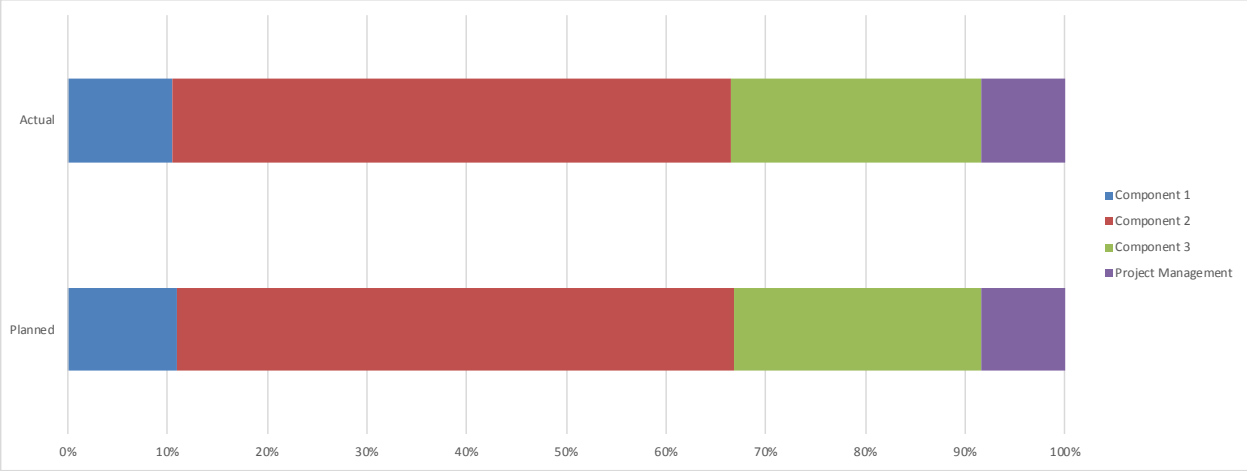
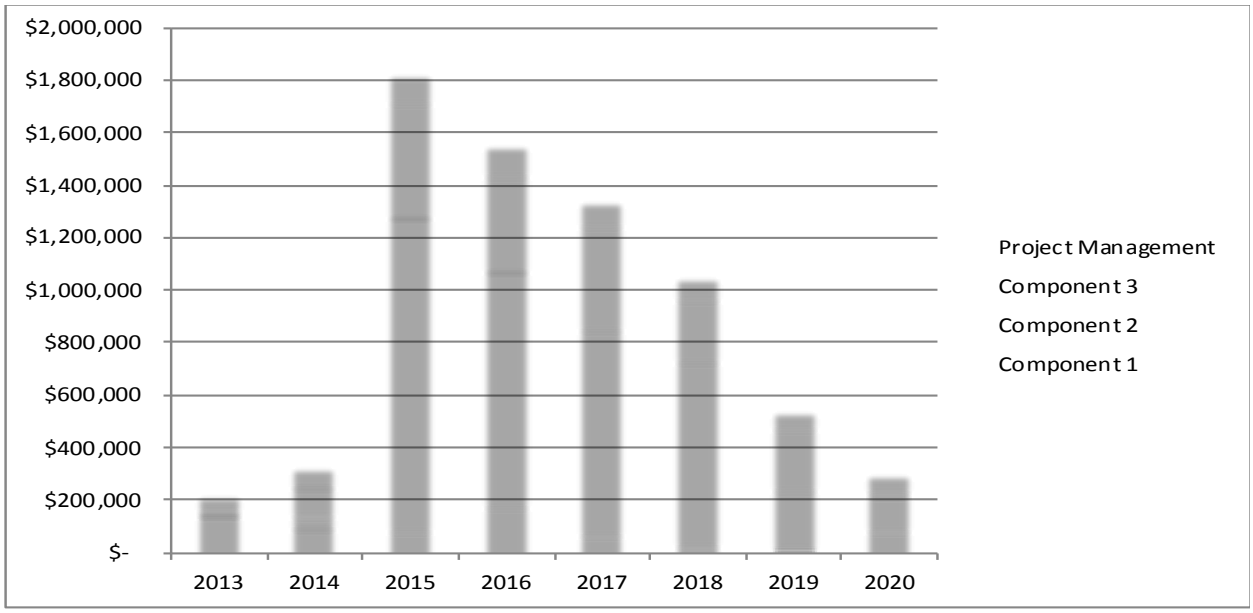


Figure 4 Actual Disbursement by Component by Year (USD)



100. Figure 4 shows actual disbursement by component by year. Figure 5 shows the project's originally planned expenditure by year, vs. actual expenditure by year, with the annual financial delivery rate. Figure 6 shows the project's original planned cumulative expenditure vs actual cumulative expenditure. The notable fact of these three charts is that the planned annual expenditure was very high in the first year of the project, and remaining ambitious in the next two years. It was planned that over $2 million USD, nearly 30% of the project budget, would be disbursed in the first year of the project, which is clearly unrealistic. In the first year of the project the actual disbursement was just over 10% of the planned amount, or a total of 3% of the project's budget. In most cases a project cannot be expected to deliver more than 10-15% of the project budget in the first year of the project. One lesson from this project for UNDP (and other GEF projects) is that project budgets need to be realistically planned in terms of annual expenditure, especially in the first half of the project.

Figure 5. Planned Annual Expenditure vs. Actual Annual Expenditure, and Annual Financial Delivery Rate (Actual Expenditure vs Original Planned Annual Expenditure)

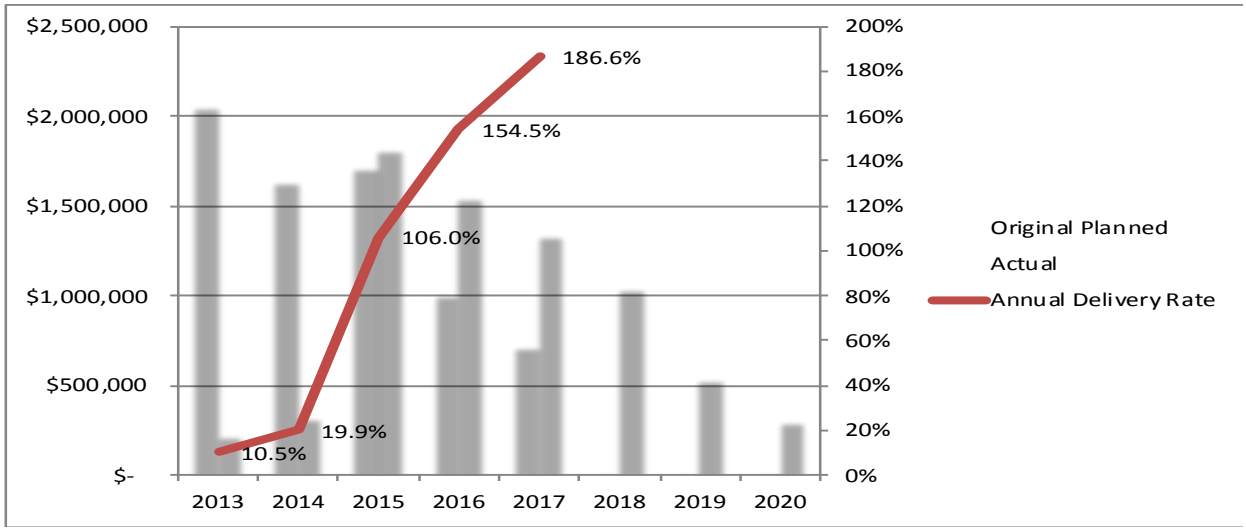
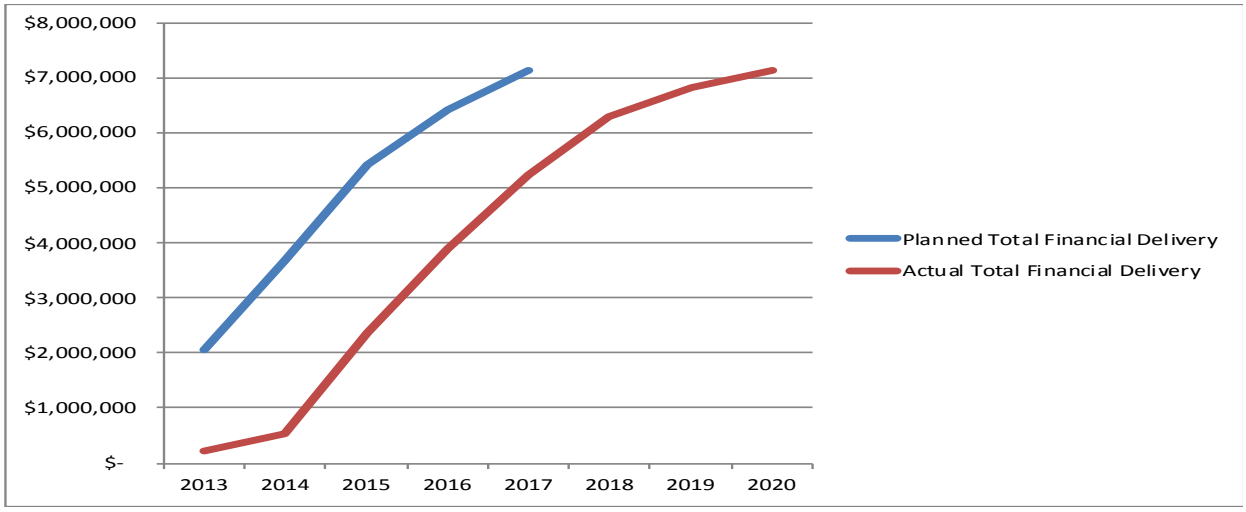


Figure 6. Planned Cumulative Expenditure by Year vs. Actual Cumulative Expenditure



G. Planned and Actual Co-financing

101. The expected project co-financing was $21,430,000 (88% cash, 12% in-kind), from eight total partners. This is an expected co-financing ratio of approximately 3 : 1. Table 6 below shows planned and actual co-financing. According to data provided by the project team, the project received $24,933,615 USD in co-financing. Co-financing was received from five of the originally planned partners (including UNDP); although some originally planned partners did not contribute co-financing, there were other partners involved, and it is possible that actual project co-financing was higher, at least in terms of in-kind co-financing. The breakdown of co-financing is not tracked by project outcome because it is not managed by the project.

102. Actual co-financing in dollar terms is 116.3% of the expected co-financing. It should be noted that tracking co-financing in USD terms can lead to misleading conclusions. As noted previously, the Turkish lira depreciated significantly against the US dollar during project implementation, and therefore if the project's co-financing were tracked in local currency the actual co-financing percentage would be significantly higher than what was planned.

Table 6 Planned and Actual Co-financing Received

Sources of Co-finance	Name of Co-financer	Type of Co-financing	Planned Amount (USD)	Actual (USD)	Explanation	% of Expected Amount
National Government	General Directorate of Forestry	Grant	17,400,000	2,879,353	• Solar equipment • Pest control laboratories • Silvicultural field work • Tree planting • Degraded forest rehabilitation	17%
National Government	General Directorate of Forestry	In-kind	2,000,000	20,070,270	• Staff salaries • Fuel costs • Transportation expenses • Workshop and meeting expenses	1004%
GEF Agency	UNDP	Cash	640,000	100,000	• Various expenses across project components and project management costs	16%
GEF Agency	UNDP	In-kind	180,000	720,000 (as of MTR)	• Not specified	400%
Bilateral Agency	GIZ	Grant	600,000	600,000	• Not specified	100%
CSO	WWF Turkey	In-kind	150,000	Not reported	• Not specified	0%
CSO	Nature Conservation Center	Grant	150,000	463,992	• Fieldwork and office equipment • Travel • Staff and local consultants (not paid for by the project)	309%
CSO	Chamber of Forest Engineers	Grant	110,000	Not reported	• Not specified	0%
CSO	Chamber of Forest Engineers	In-kind	50,000	Not reported	• Not specified	0%
CSO	The Central Union of Turkish Forestry Cooperatives	In-kind	50,000	Not reported	• Not specified	0%
Other	Gold Standard Foundation	In-kind	100,000	100,000	• Not specified	100%
Total			**21,430,000**	**24,933,615**		**116.3%**

Sources: Planned from Project Document. Actual total co-financing received as per data from UNDP/Project Team and MTR.

H. Monitoring and Evaluation

103. The Turkey SFM project **M&E design** generally meets UNDP and GEF minimum standards, although there are some shortcomings in the design of the results framework indicators and targets, and M&E design is considered **moderately satisfactory**. **M&E implementation** is also considered **moderately satisfactory**, due to some delays in the timing of the mid-term review and terminal evaluation, and therefore **overall M&E** is considered **moderately satisfactory**.

i. M&E Design

104. The Turkey SFM project M&E plan is outlined in the project document, including a budgeted M&E plan in table format (section II of the Prodoc, pp. 52-55). The M&E plan describes each of the planned M&E activities, including roles, responsibilities, and timeframe. The identified M&E activities include inception workshop and report, annual progress reporting (APR/PIR), meetings of the Project Board, independent mid-term review and terminal evaluation, project final report, and audit. In addition, it was expected lessons would be captured in the various M&E activities and reports, since, for example, they are automatically included in the annual PIR, and Terminal Evaluation. The project M&E plan is appropriately designed and well articulated, and conforms to GEF and UNDP M&E minimum standards.

105. The M&E plan is summarized in a table showing responsible parties, budget, and timeframe for each of the M&E activities, with the total expected budget of $143,000, distributed across the project components. This is adequate for a project of this size and scope, representing approximately 2.0% of the GEF allocation. Current good practice in designing and planning project M&E activities is to include a specific project output that covers these activities; this ensures they are comprehensively and transparently planned and budgeted in the actual project workplan and total budget.

106. The project results framework is a critical component of the project's overall M&E framework. The Turkey SFM project results framework indicators and targets were not well designed, and included 14 indicators (essentially 1 indicator per project output), which is minimal for a project of this size. Many of the indicators do not fully meet SMART criteria in terms of being relevant and specific; in terms of measurability, more than a third of the indicators simply reduce the project results to a carbon sequestration or avoidance figure, which does not fully and adequately capture the appropriate scope of the project's outcome-level results. The results framework was revised on the recommendation of the mid-term review, though only two indicators were modified.

ii. M&E Implementation

107. The project M&E activities were implemented generally as foreseen. The project team provided reports at required reporting intervals (i.e. quarterly progress reports, annual PIR), and UNDP oversight has been appropriate. The project had financial audits annually from 2015-2019.

108. The major shortcoming in terms of implementation of M&E activities has been in the timing of the mid-term review, and the timing of the terminal evaluation. The mid-term review was carried out in the 4th quarter of 2017, which was only 6 months before the project's originally planned completion date (for a 5 year project). The planning for the terminal evaluation was only

done at the very end of the project, so that the terminal evaluation itself was conducted a few months after completion of the project activities. An unfortunate inadvertent side effect of both of these situations was that neither the mid-term international evaluation expert nor the terminal evaluation international evaluation expert were able to undertake field missions to support the evaluation, due to unexpected external contextual factors. The project was well-documented, and in the case of the mid-term review the evaluation team included a national consultant that was able to carry out field missions, but this is a less than satisfactory situation in terms of completing two key project M&E activities.

VI. Effectiveness and Results: Progress Toward the Objective and Outcomes

109. The Turkey SFM project's **effectiveness** is rated ***satisfactory.*** The project generated many significant results, and overall the project was able to achieve the planned outcomes, and the project objective. One unexpected element of the project's effectiveness was the project's ability to link SFM monitoring to national reporting on SDGs. This is a highly useful model that has significant potential for wider applications at the international level. The main challenge in terms of project effectiveness relates to the practicality of scaling-up the integrated Forest Management Plan approach that was piloted by the project in 5 Forest Enterprise Directorates, encompassing Forest Management Plans (FMPs) for 28 Forest Management Units (FMUs). Project participants highlighted how useful and important the integrated approach supported by the project is, which brings together forest management aspects related to NTFPs, biodiversity, fire management, carbon management, pest management, and ecotourism.

110. Project **results / achievement of overall outcomes** is rated ***highly satisfactory***. The project *exceeded* the planned targets for 7 out of the 14 project results indicators. The planned results were achieved for 6 other indicators, with one indicator target partially achieved. As one project participant stated, *"We [i.e. GDF] have implemented many donor projects, but we can say that surely this was the project that was the most successful that we have implemented until now. Everybody is really happy with the results."* The project objective level results indicators are summarized in Table 7 below.

Table 7 Turkey SFM Project Objective Level Indicators

Indicator	Baseline	Target	*Status*
Area of forest landscapes in Turkey with integrated forest-plans developed and under implementation that deliver multiple environmental benefits (biodiversity, climate change), ha.	0	0.45 mln ha	*Exceeded.*

111. Overall, the project's results are myriad and wide ranging, as would be expected for a project that covered so many different thematic aspects related to forestry, and spanned approximately seven years. The significance and achievements of seven years of work by countless individuals cannot be given due justice in such a short terminal evaluation report. Some additional detailed information regarding some project results not covered in this section is available in the "Self-assessment" column of Annex 9 of this report, which includes the project results framework and the project's reporting on indicators and targets from the 2019 PIR. No doubt the significance of the project's work will continue to be apparent in Turkey for years to

come, as well as outside of Turkey (considering the large number of English language project outputs).

112. The overarching achievement of the project is the completion (and initial implementation) of 28 FMPs in 5 pilot FEDs, covering a total of 638,923 hectares. This exceeds the target value by approximately 42% in terms of hectares. Other major project results were achieved in relation to fire management, national SFM Criteria and Indicators, the development of the SFM DSS software platform, the biodiversity integration tool, and capacity strengthening of GDF. The value and potential of the DSS as a tool for forest management (as well as other potential applications, such as integrated land use management) is hard to overstate. This is a highly useful software platform that was carefully and thoughtfully designed to be potentially applicable beyond Turkey.

113. In relation to fire management, the Early Warning System supported by the project has already produced impact level results, contributing to a reduction in the number of forest fires annually, and reducing the average time to respond to a fire from 17 to 12 minutes. The firefighting cost savings to GDF in 2019 was more than $43 million USD. Many of the project results are in the process of being scaled up to national or international levels. For example, the forest fire Early Warning System was initially established in the 5 project pilot FEDs, then expanded to 30 additional FMUs in 2019, and the GDF is working to scale the system to the full national level in 2020.

114. The main notable shortcoming in terms of project results was that the project did not make as much progress as originally planned with respect to pest early warning systems and pest management. The project was able to set up pest management laboratories, but these were only initially staffed in 2020, after the completion of the project. Therefore the project was not able to fully achieve the planned targets for this part of the project. This was partially due to the fact that this is an especially challenging issue from a technical perspective, with relatively fewer good examples at the international level.

*A. **Component/ Outcome 1:** Policy and institutional framework for integrated forest management within the landscape*

115. The first component of the project focused on Turkey's policy and institutional framework for sustainable forest management. Component 1 is an umbrella national component designed to strengthen Turkey's institutional and policy framework and capacities in areas of weakness, and support Turkey's ongoing efforts to put in place an enabling environment needed to conserve and enhance carbon and biodiversity benefits generated by forests. The project addressed issues ranging from regulations governing the establishment of protected forests to systems for MRV of forest carbon stocks and fluxes.

116. The total GEF funding planned for the component was $780,000 USD, which was 11.0% of the total GEF funding for the project; the actual expenditure was $749,602 USD. The component activities were organized around five outputs. The progress toward results so far for each of the outputs is summarized following the table below.

117. The level of progress toward the results indicators for Component 1 are summarized in Table 8 below.

Table 8 Component 1 Indicators and Targets

Indicator	Baseline	Target	Status
LULUCF Unit	No properly capacitated LULUCF Unit in the Government	One adequately staffed and funded LULUCF unit with technical capacities to drive forest carbon efforts forward in the country	*Achieved.*
Forest protected area regulatory framework	No legal framework defining forest PA expansion and integration within broader landscape	Effective regulatory framework enables GDF to establish forest PAs based on combined SFM criteria, including biodiversity and carbon	*Achieved.*
MRV for forest-based mitigation and sequestration	No MRV	One MRV for forest-based mitigation and sequestration in Turkey is developed, with initial emphasis on Mediterranean region.	*Exceeded.*
[Modified indicator as per MTR]: Establish a decision support system to include LULUCF database as well as biodiversity and social benefits [Original indicator]: Forest sector Nationally Appropriate Mitigation Action (NAMA)	No NAMA	[Modified target as per MTR]: A decision support system for forest management established [Original target]: One fully developed NAMA covering 2-4 million ha Mediterranean-region forests	*Exceeded.*

118. <u>Output 1.1:</u> A LULUCF unit in GDF with specialized capacities and tools to design, implement and monitor efforts to conserve and enhance Turkey's forest carbon stocks

119. The LULUCF unit was established in 2015, and is operating within GDF. The LULUCF unit works on other aspects of carbon management and reporting, building on the MRV work carried out under the project. This includes collection of fine-scale data on carbon sequestration, along with better field verifications to improve the quality and quantity of carbon-related data. This is also aimed at integrating to the database, data on climate change to measure ecosystem resilience. In this sense, a properly capacitated LULUCF Unit is also crucial in the sense that it is also expected to lead MRV and NAMA related activities. As the LULUCF Unit is responsible for reporting carbon sequestration and emissions, it also must ensure that the data on which carbon reporting is based is reliable, and that it meets international standards. Within this Output, along with others in Component 1, significant progress was made in terms of enabling higher quality data and better measurement techniques.

120. Multiple training and capacity development activities were carried out. For example, as part of targeted capacity building activities, a Field Monitoring and Measurement Standards workshop was organized in Ankara in November 2016 with participation of the LULUCF unit and other key GDF staff. A manual was prepared by the project consultant with the same title and published. Another key capacity building event--National Climate and Soil Baselines workshop-was organized with participation of staff and experts from GDF and the Ministry of Food, Agriculture and Livestock. The workshop helped to introduce the necessary climate and soil

baselines for GHG reporting and define the approach and methodology for developing the national baselines. A Field Inventory Training was provided in Köycegiz, Muğla during 18-19 April 2017 to test the MRV suggested litter and deadwood inventory approaches targeted by the LULUCF Unit and other relevant GDF staff including local inventory experts.

121. The next major step is to actually monitor and track carbon flows in Turkish forests in a comprehensive and standardized approach. Through the project's support, the GDF decided to adopt the Canadian Carbon Budget Modeling (CBM) for tracking, assessing and managing carbon flows in Turkey's forests. A training was conducted on the CBM methodology in July 2017, and a plan for adoption of CBM in Turkey by the GDF was formulated. However, as of project completion in 2020 three years later, this has not yet been funded and implemented. It would be great if the project had been able to achieve this next step during the 2nd half of the project, in partnership with the GDF's LULUCF unit, but the planned project results only included establishment of the LULUCF unit, which the project fully achieved.

122. Output 1.2: Regulatory and methodological revisions to enable accounting for multiple benefits arising from Turkey's forests

123. This output aimed to develop regulatory mechanisms to extend "Protected Area" status to high conservation value forest areas that face natural and anthropogenic threats. This revolves around the idea of an integrated approach to forestry and forest conservation, leading "protected area" regulations to consider not only natural and anthropogenic threats, but also more sophisticated carbon and biodiversity needs. The planned output is described in the Prodoc as such:

> *An existing regulation governing the establishment of protected forests will be revised and updated in the following ways: (i) expansion of PA establishment criteria to include specific biodiversity and carbon considerations; (ii) a detailed methodology and protocol according to which potential new protected forests can be assessed, prioritized and established; (iii) incorporation of provisions related to permanence, integration with forest management plans, restricted uses (including extractive ones) and associated sanctions, and resolution of inter-agency conflicts, and; (iv) monitoring, assessment and other management-related protocols.*

124. The project has not fully succeeded in achieving the output as originally conceived, but multiple corresponding and supporting efforts were made that significantly advanced the management of high conservation value forests in Turkey's Mediterranean forests. Most significantly, guidelines for the mainstreaming of biodiversity in forest management plans were developed, piloted, and adopted for further upscaling within Turkey.

125. With the support of the partner NGO NCC, the project supported the GDF in developing guidelines on integrating biodiversity in FMPs, which were piloted in the five project pilot FEDs. Target species and habitats were identified and mapped for each pilot site. Biodiversity maps were overlaid with other maps, such as fire risk, pest risk, and silviculture and afforestation plans. Core zones and buffer zones were identified and integrated into the pilot FED forest management plans. In addition, prescriptions for forestry activities in forests with high biodiversity values, including no-logging regimes and biodiversity friendly silviculture activities, were included in specific forest management plans to ensure integration within the landscape and sustainability.

126. In January 2018 the project convened a workshop with all relevant stakeholders to discuss a way forward for advancing the foreseen legislation and regulations relating to forest protected areas. It was decided to establish a working group within GDF on this issue, including experts and decision makers from relevant departments to come up with an official forward plan. The idea was presented to the General Director of the GDF, and it was concluded that the approach was feasible. In addition, it was seen that the same approach could be adopted for other key issues, and it was decided to establish a general **Sustainability Commission** with GDF members, who then organize sub-working group meetings to come up with project related conclusions and suggestions, including regulatory revisions arising during the implementation of the project.

127. The Sustainability Commission (also "Working Group") was operationalized within GDF through a formal letter of establishment from the Director General in 2019. The commission is composed of 14 officials from 7 different departments within GDF to cover all outputs of the project, rather than focusing only on the forest PA related legal framework. The main role of the commission is officially identified as reviewing the current regulatory framework, identifying gaps, and drafting regulatory changes to ensure sustainability of the new approaches and models to be included in the GDF's business as usual. The commission prepared a road map to ensure the sustainability of tools and models that were prepared as a part of the project such as biodiversity assessment, zoning, integrated forest management planning, protected forests, pest control, forest district level forest fire management plans and management zoning (fire risks etc.), eco-tourism and NWFPs, carbon focused silvicultural activities. This included a review of relevant legislation, and a sustainability plan for all the major project results.

128. Output 1.3: Initial development and deployment of MRV for Turkey's Mediterranean forests; Output 1.4: Capacity building of national- and field-level foresters in forest biodiversity conservation and monitoring and LULUCF forest carbon monitoring and accounting; and Output 1.5: A Nationally Appropriate Mitigation Action (NAMA) covering the forestry sector

129. The originally planned and designed outputs 1.3-1.5 were slightly modified and combined during the project implementation under an adaptive management approach (also see previous Section V.E on adaptive management), under appropriate procedures for approval of the Project Board.

130. The project led in developing a sector specific MRV Report to support GDF in carbon related reporting processes (see Figure 7 below). The report was prepared by Gold Standards and Trees Foundation. The MRV document set the baseline for a high-quality reporting including data collection and storage processes. New approaches resulting from MRV document were tested as part of the inventory process. According to the MRV findings, methodology was developed to collect data on litter and deadwood which were absent previously. The MRV report is available both in Turkish and English.

131. This output also relates to the work completed under Output 1.1 on carbon budget modeling, as previously discussed.

132. Additionally, Project team has decided to undertake a study on mapping linkages between the Turkish Forestry Sector impact area and the Sustainable Development Goals. A working group has been established to undertake the task with members from UNDP, key experts and NGOs in Turkey. The working group identified key relations between the forestry sector and SDGs; and prepared a large set of indicators following the path described by the MRV report. The draft outcome document prepared as a discussion paper was circulated to the relevant parties during this reporting period to collect the feedback from the relevant parties. The paper is also describing the linkages between SFM C/I that were revised during 2018. Following the finalization of the report, the English version will be ready to be disseminated among international community as well. As a conclusion, the report will be finalized upon comments of the stakeholders before the end of 2019.

Figure 7 National MRV System

133. In line with the Paris agreement and the guidance of the Ministry of Environment and Urbanization, and the focal point for UNFCCC in Turkey, it was decided to focus on LULUCF sector NDC with a stronger MRV system. The original project task of NAMA preparation was replaced with preparation of the MRV and reporting of LULUCF sector within NDC as per the Project Board decision in February 2015.

134. The GDF decided to revise the Turkish SFM Criteria / Indicator set to align with the updated European SFM set. The project supported these efforts as this work overlaps with the project goals and priorities. Six working groups were established and more than 15 working group meetings were organized to work on six different criteria with the participation of more than 150 participants all over the country. The SFM C/I set was finalized at a national level and a supporting document “the national guide on revised SFM C/I” was also prepared (see Figure 8).

135. While the work under the project was considered a “revision”, because there had been some previous work on SFM criteria and indicators prior to 2011, in fact the work under the project was essentially starting from scratch. Due to institutional changes there was a gap in the work on SFM criteria and indicators from approximately 2011-2016. Generating the fully updated SFM criteria and indicators is a major achievement that should catalyze a variety of other positive outcomes in the forestry sector in Turkey. As one participant stated, *“Defining the set is a big*

deal. The criteria and indicators go into detail on each of six elements. They are each complicated. The validity, the verification issues…every piece of data had to be confirmed by data providers. The guidelines have been officially announced, so they have a legal basis."

136. Under Output 1.4 the project was to address integrating biodiversity aspects into forest management plans, which was in fact mainly addressed under Component 3. Functionally, this ended up being a part of the project's work that was more in-line with the development of an integrated approach to FMPs that was carried out under Outcome 2, and this work was appropriately integrated with the work done to develop the integrated FMPs under Outcome 2.

Figure 8 National SFM Criteria and Indicators

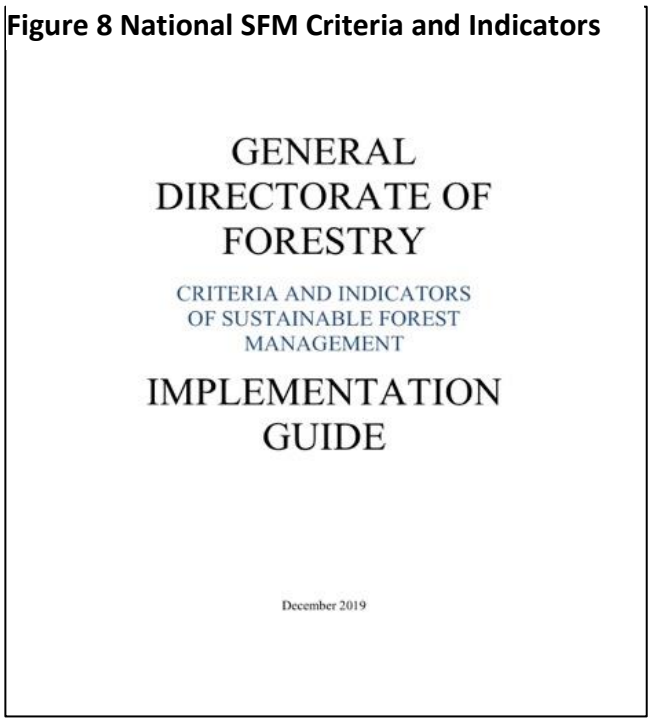
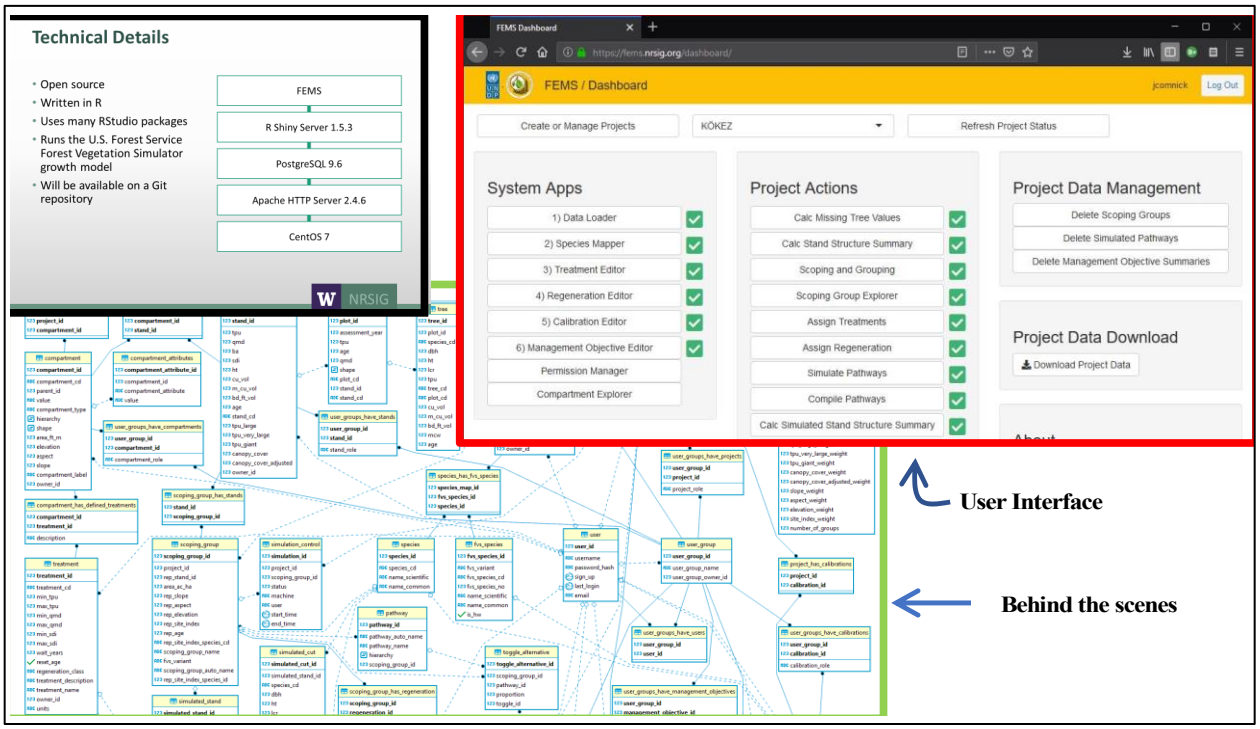


Figure 9 Overview and Snapshot of FEMS User Interface

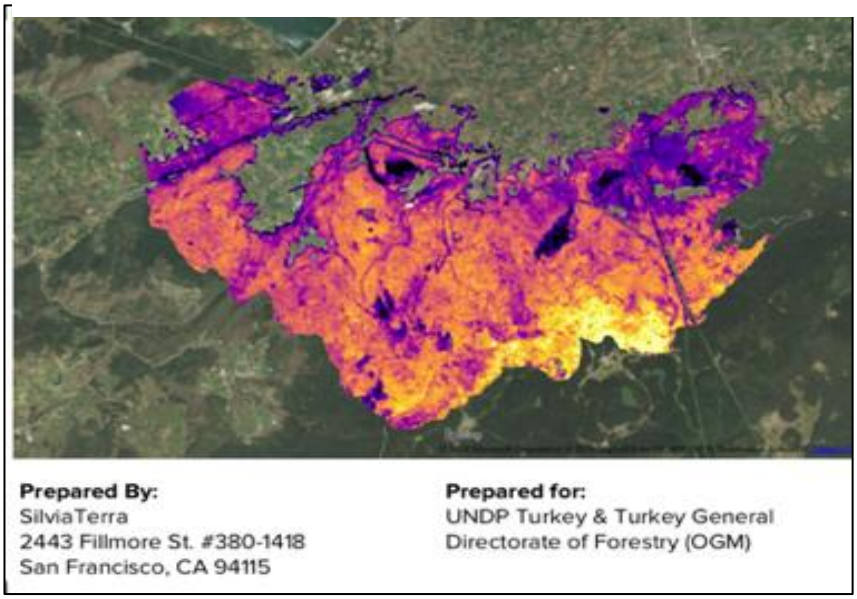


137. Another major result of the project that has the potential to catalyze widespread change in the management of Turkey's forests, and even beyond Turkey, is the Decision Support System (also "Forest Management System") for sustainable forest management that was developed directly with the project's support. The software was built from the ground up through a

partnership with the School of Forestry at Yale University, and the University of Washington, in the USA. These are two of the premier forestry management research institutions in the United States.

138. Figure 9 above provide a brief overview of the Forest Management System, including a snapshot of the User Interface. The decision support system was designed and put into operation by the project as of 2019. The system is called Forest Management System ("Orman Yönetim Sistemi" in Turkish) is currently online. The program has two parts: the first part is a forest simulator that is growing the forest given the inventory and silvicultural activities throughout a management calendar. The second part is focusing on optimization of the activities based on the management priorities set by the forest managers. The program will help Turkish foresters to design their forest management plans according to the findings and suggestions of the program. The system was designed in open source approach and will be available for other countries and organizations upon request.

Figure 10 Example of Forest Stock Heat Map for Kökez Forest Indicating Total Volume of Trees



139. Another project activity was to test modern, cheap and fast inventory methods for future use in Turkey. For that aim, the project worked with Silvia Terra, a company specialized on forest inventories with the support of satellite images through their own cruise boost. This approach has been proven to decrease the cost associated with the inventories. The trial work was undertaken in Alara Forest region and Silvia Terra produced heatmaps that indicate forest stocks in selected area. A second phase of the demonstration was carried out in another forest, Kökez, which has more species and more complex forest structure. Both studies were successfully completed, indicating that it is possible to produce quality inventories with the help of satellite imagery and with less field data. The GDF is in the process of assessing the findings of the study and taking the necessary steps to revise its inventory methods.

*B. **Component/Outcome 2:** Implementation of forest-based GHG mitigation and carbon sequestration tools within landscape*

140. The total GEF funding for Component 2 was originally planned at $3,974,270 USD, which is 55.8% of the total GEF funding for the project; actual expenditure was $3,983,114. The component activities are organized around five key outputs. The main progress toward results of these outputs is summarized following the table below.

141. Many of the results under Component 2 have been rolled up into the overall approach for integrated forest management planning. One of the key expected outcomes of the project was to design, test and implement an approach on delivering integrated forest management plans. The new approach was based on having biodiversity, ecosystem services maps, fire risk, pest risk, carbon focused silviculture, NWFPs, eco-tourism and industrial plantation perspectives, differing from the business as usual plans. As part of the project activities, 28 forest management plans in 5 pilot sites were prepared covering an area of 638,923 ha. In order to strengthen the implementation of these new management plans, trainings for forest chiefs on implementation of the integrated forest management plans was conducted. Moreover, trainings for forest planning engineers at GDF and private sector on the principles of making integrated forest management plans were also conducted.

142. Progress toward results indicator targets for Component 2 are summarized in Table 9 below.

Table 9 Component 2 Indicators and Targets

Indicator	Baseline	Target	Status
Fire management and carbon losses from fires	Suppression-focused fire management system; annual carbon losses at five pilot sites average 3,629 tCO2/y	Proactive (prevention and load management focused) fire management methods at pilot sites generate carbon benefits of 1,646 tCO2/y over baseline.	*Achieved.*
Silvicultural methods consider carbon and biodiversity aspects. Assessment of associated carbon benefits.	Carbon benefits not taken into account or measured; locations not chosen to maximize connectivity enhancements.	Silvicultural approaches at pilot sites generate carbon benefits of 11,572 tCO2/y along with enhanced connectivity.	*Exceeded.*
Fuel wood removals and associated carbon fluxes.	High levels of legal and illegal fuel wood removals for household consumption, especially home heating, with resulting annual carbon losses at five pilot sites averaging 18,775 tCO2/y. No alterative system to replace fire wood consumption in place.	Expansion of micro-credit program into Mediterranean region generates carbon benefits of 13,038 tCO2/y over baseline	*Exceeded.*
Integrated pest management (IPM) and associated carbon fluxes	No proactive IPM, resulting annual carbon losses at five pilot sites averaging 45,286 tCO2/y.	Introduction of IPM methods and establishment of two pest centres generates carbon benefits of 30,191 tCO2/y over baseline.	*Partially achieved.*
Carbon protocols designed and completed before, during and after implementation of enhancement and mitigation efforts	No carbon protocol	Introduction of carbon protocols in line with MRV system (Output 1.3) enabling integration of climate change into forest management plans through a central LULUCF Database under Forest Information System (FIS) Project of GDF.	*Achieved.*

143. Output 2.1: Integrated fire management systems at FED level, emphasizing fuel management, consisting of (i) a fire management information system (wildfire hazard and risk analysis; fire danger rating and early warning), (ii) fire prevention planning involving local communities and the general public, and (iii) decision support for wildfire preparedness with streamlined collaboration between responsible authorities (forest department, and fire and emergency services)

144. This has been one of the other highly successful aspects of the project. According to project stakeholders, the Early Warning System supported by the project has already produced impact level results, contributing to a reduction in the number of forest fires annually, and reducing the average time to respond to a fire from 17 to 12 minutes. The firefighting cost savings to GDF in 2019 was more than $43 million USD. Many of the project results are in the process of being scaled up to national or international levels. For example, the forest fire Early Warning System was initially established in the 5 project pilot FEDs, then expanded to 30 additional FMUs in 2019, and the GDF is working to scale the system to the full national level in 2020.

145. Under this output, several activities were carried out to prevent and stop forest fires. Meteorological early warning system and forest fire early warning system were established and made operational at national scale and it was integrated into the Forest Information System of the GDF. Fire Management Plans for 5 pilot sites were prepared and integrated into 28 forest management plans. Several capacity buildings activities were made for GDF staff and they were integrated into GDF's online training system. Training modules at International Training Center of Antalya used to be working as off-line system, they are now integrated into online training system. The Forest Fire Simulator, a sound software for the training of the fire fighters, was developed for Antalya International Training Center by HAVELSAN company with the funding from the Project. In regard to fire prevention, trainings in the villages of the pilot forests were implemented. Training activities targeted primary school students and villagers separately.

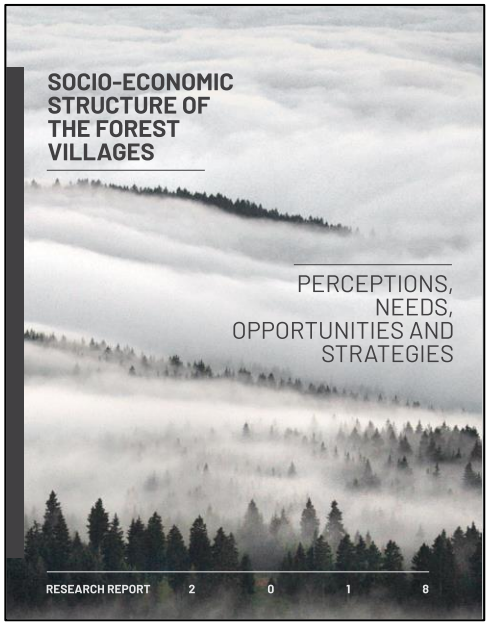
146. Output 2.2: Enhanced silvicultural efforts—including carbon-focused thinning (5,000 ha), forest rehabilitation to increase crown cover in selected areas from 10-15% to 50% (3,000 ha).

147. The project has identified 41 pilot sites for silvicultural implementations. Several activities were tested on those sites and carbon measurements are under implementation. These calculations and sampling will continue after the project to see which activities end up with the highest GHG mitigations. Moreover, some of those methods are widely used in project pilot areas. The area covered by carbon-focused silvicultural activities covered 9,339 ha. The activities undertaken include regeneration thinning, artificial regeneration tending, initial thinning, conversion of coppices into high forests, industrial plantation and rehabilitation.

148. Output 2.3: Micro-crediting program to support access to solar heating and alternative heating technologies / implementation of more efficient insulation technics in pilot areas as a means to avoid illicit cutting of native forests)

149. This output was modified during implementation, as it was determined that implementing a grants program directly with local level stakeholders would not be feasible or cost-effective, as there is not adequate local absorption capacity to develop and implement micro-grants or credits.

Figure 11 Socio-Economic Report



150. A preliminary socio-economic study (see Figure 11) was presented to the GDF decision makers and experts. It was well received by the stakeholders and GDF noted the need to replicate this approach elsewhere in Turkey. The outcome of the preliminary reports, meetings and activities uncovered the fact that there isn't yet sufficient capacity at local level to develop and implement a grant project, although there is an important potential on bringing different stakeholders together around specific topics. Moreover, after a series of meetings with the RTA, UNDP CO management, and the GDF about potential models to be used, it was clear that the best and time efficient model to be adopted is to implement the grants directly through the partnership of UNDP and GDF. The grant management modality was therefore revised to UN's HACT as a Direct UNDP Procurement. This meant that the procurement was done by the GDF in line with Turkish Government procurement rules, and payment was done by UNDP, a method commonly used for UNDP projects including GEF funded ones.

151. The project focused on initiating two grants for ecotourism activities in Köyceğiz FED and non-wood forest products in Andırın FED. For ecotourism, a project consultant was hired and workshops have been organized to define the best strategy. On the latter, a local partnership mechanism was established with local stakeholders including local government bodies, NGOs and tourism enterprises. A document with prospective project ideas was prepared for further discussion. The socio-economic study set the baseline for the grant mechanism in terms of needs, facts, opportunities and gender aspects.

152. The project undertook a series of activities aiming at generating sufficient data to clarify what type of activities could be supported in order to strengthen site level partnerships for NWFP and ecotourism activities. The outputs of these are;

- Laurel value chain analysis
- Carob value chain analysis
- Thyme value chain analysis
- Socio-economic analysis of forest villages with gender responsive approach
- Meetings with relevant departments of the GDF – central and local level.

- Series of workshops on ecotourism to explore potential project ideas to be supported.

153. The framework for enhancing ecotourism activities in Köyceğiz was prepared by collecting the ideas of various stakeholders at the local level, and then prioritized with the feedback of the relevant department of GDF. These outputs were transformed into several project proposals for possible later implementation in partnership with UNDP and the GDF. The content of projects had a strong focus on facilitating the building of partnerships at local level while also aiming at building capacities. The first project proposal was implemented in Koycegiz FED with the participation of 16 local villagers on rural business initiative. Other project proposals are;

- Study visits to the best ecotourism sample sites,
- Köyceğiz tourism destination plan,
- Workshop for all related partners on ecotourism for local partnerships,
- Open air museum for Liquidambar,
- Tourism products inventory,
- Information and awareness posts,
- workshop for decision makers,
- Workshop on ecotourism planning for GDF staff.

154. The same process was implemented to explore the project ideas opportunities for laurel collectors in Andırın in order to strengthen their position along the laurel value chain through partnerships.

155. Also under this output, in-lieu of the originally planned micro-credit program, the project provided “micro-credits” to forest dependent communities in the form of solar panels, which provides the benefit of avoided illegal cutting of fuelwood. 1,301 “micro-credits” (solar panels) (vs the target of 1,100) were provided to the villagers in five pilot sites. The carbon benefits generated by the micro-credit program was 123,387.31 tCO2 eq over 20 years.

156. Output 2.4: Integrated pest management system for forest management including establishment of two pest biological control and early warning centers in the Mediterranean region equipped with technologies for field observations and early problem identification as well as a laboratory dedicated to research and training on natural enemies

157. This was the one notable area of project activities that did not advance as much as initially hoped. The project had aimed to establish pest early warning systems, but did not fully achieve this. This was planned to involve remote detection systems, and software to assess threats for early warning. According to project participants, this was partially because there were few good international examples of such systems, as such work is still not well-developed in the forestry sector at the global level.

158. The project supported the establishment of two pest research laboratories (out of 11 total established by the GDF). While these laboratories were set up and equipped, the GDF was only able to start staffing the laboratories in 2020.

159. In addition to the laboratories the project’s work involved risk mapping for pest management. Areas at high risk for pests were assessed and mapped based on records of pests in last decade in the 5 pilot project sites. Prescriptions based on the pest risk maps and

assessment were prepared and integrated into forest management plans in order to minimize the pest damage and to conduct more effective control activities. A methodology and system for carbon calculations due to pest disturbance were developed by the project. The system is fully in line with the latest scientific studies and updated scientific developments. A study on the technical specifications and the needs for early warning system was conducted. A report summarizing best practices on the use of early warning systems around the world along with key findings was prepared and submitted to GDF.

160. Output 2.5: Carbon stock and stock change measurements taken at pre-selected monitoring sites within the pilot areas using the methodology designed in Output 1.3. Carbon protocols completed before, during and after the implementation of enhancement and mitigation efforts (Outputs 2.1-2.4). Data transferred to the centralized LULUCF-Forest Carbon data-base (Output 1.4). Precision of carbon benefits generated by the project is improved each time the measurements are taken.

161. This work was integrated with the previous carbon-related outputs, as discussed previously, under Output 2.2, and Output 1.4 relating to the MRV system. The main result expected under this output was the establishment of the carbon protocols that match with the database being established with the MRV system under Component 1. As part of the MRV process carbon protocols were finalized, tested and integrated into carbon inventory methodologies. The carbon protocols were successfully integrated into forest management plans, improving the technical and the institutional capacity of the relevant, local and national authorities. Study trips were carried out to meet with international experts among academia and civil society to gain improved understanding of these critical issues, and acquire necessary sets of technical and organizational expertise. Exchanges with Yale University and Gold Standard were highly valuable in meeting the challenges during the implementation of the protocols and their integration to databases and forest management plans.

162. A project consultant on carbon issues prepared a book called “Climate Change and Carbon Management” as part of his deliverables, and this book is in the process of publication. The book summarizes developments in climate change negotiations, decisions related to Turkey and LULUCF - Forestry related carbon budgets, formulas, etc.

*C. **Component/Outcome 3:** Strengthening protection of high conservation value forests in Mediterranean landscape*

163. A memorandum of cooperation was established between UNDP and the NGO Nature Conservation Centre (abbreviated as DKM in Turkish) for activities to be carried out under Component 3. The DKM had a previous 15 years of experience working with the GDF. Significant work was done under this component to build the capacity of GDF on biodiversity-related issues.

164. The third component of the project focused on improving the conservation system within GDF to ensure effective conservation of forest biodiversity closely tied to broader SFM objectives. The component provided technical support and know-how to enable GDF to build a robust conservation system linked to generation of a range of SFM benefits, including global carbon and biodiversity benefits. This component was implemented by the NGO DKM under a partnership agreement with UNDP that included the HACT assessment. The total GEF funding for Component 3 was originally planned at $1,765,730 USD, which is 24.8% of the total GEF funding for the

project; actual expenditure was $1,787,285. The component activities are organized around three outputs. The main progress toward results of these outputs is summarized following the table below.

165. Progress toward results indicator targets for Component 2 are summarized in Table 9 below.

Table 10 Component 3 Indicators and Targets

Indicator	Baseline	Target	Status
Extent of forest PAs	Mediterranean forest habitats are under-represented in national PA system	Effective protection extended to 79,960 ha, including under-represented Mediterranean forest habitats.	*Exceeded.*
PA management effectiveness: METT Score	Aladağlar National Parks - 35 METT Score Kartal Lake Nature Reserve - 21 METT score	Aladağlar National Parks - 40 METT Score Kartal Lake Nature Reserve - 40 METT score	*Achieved.*
[Modified indicator]: Improvement in target biodiversity species at pilot sites [Original indicator]: Improvement in biodiversity indicator species at pilot sites	See baseline values for pilot sites in table below	[Modified target as per MTR]: 'Minimum habitat size' for viable population is under protection [Original target] See target values for pilot sites in table below	*Achieved.*
Carbon benefits from forest Pas	Areas are subject to regular logging according to management plans, carbon pools diminishing.	Net carbon benefit associated with new conservation areas estimated at 64,245 t CO2e/year.	*Exceeded.*

166. Output 3.1: High nature value forests covering 79,960 ha in the five targeted forest districts are protected

167. Work under this output focused on the Köyceğiz, Andırın and Pos FEDs. Areas identified for nature conservation functions in the forest management plans for these FEDs cover 77,218 ha; these areas are in line with IUCN Protected Area Criteria VI. In addition, 38,837 ha was identified as zone 1 (strict protection) and zone 2 (selected eligible activities), and added to the respective management plans with areas aiming to protect particular species or habitats (IUCN

Criteria IV). Hence, areas designated for nature conservation include 130,346 ha and areas designated as zone 1 and zone 2 areas include 67,374 ha in 5 pilot sites.

168. This was achieved through i) definition of the biodiversity mainstreaming methodology and tools, ii) first implementation in Gülnar FED, iii) Extension of the methodology to other FEDs, iv) preparation of recipes for species of concern targeting the forest chiefs through annexes in the forest management plans, v) and ensuring the successful implementation through extension activities targeting the forest chiefs and managers. The revised FMPs for these FEDs, incorporating biodiversity conservation measures, were approved by the GDF in March and April 2018.

Figure 13 Biodiversity Guidelines 1

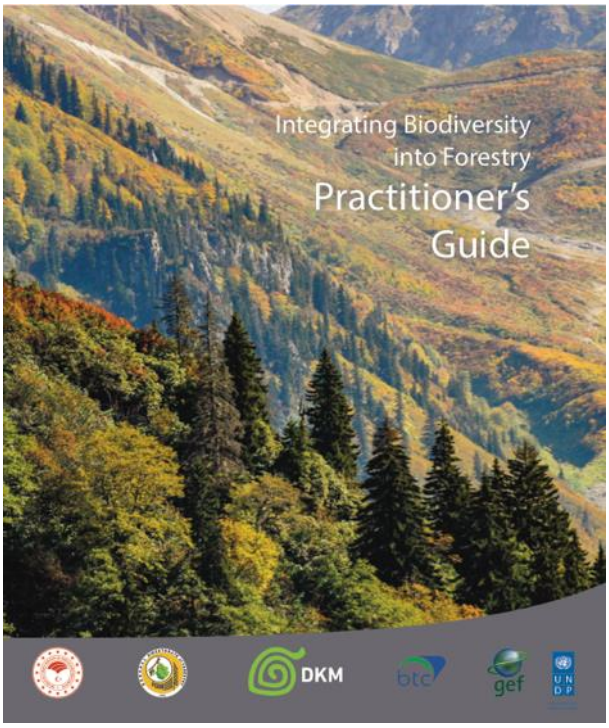
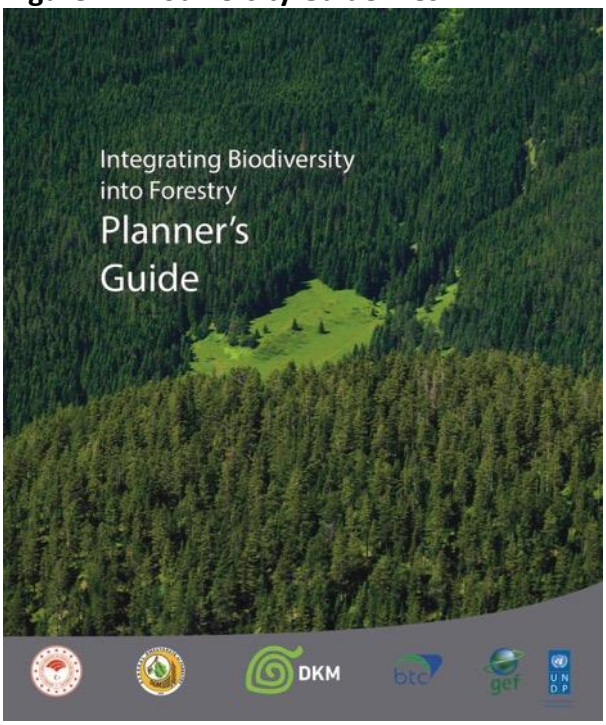


Figure 12 Biodiversity Guidelines 2



169. Following this initial work, guidelines for both planners and practitioners outlining the structured process for biodiversity mainstreaming in FMPs were published and adopted by GDF (see Figure 13 and Figure 12).

170. As further highlighted in Section VII.B below on replication, this biodiversity mainstreaming work is currently being replicated in 25 additional Forest Management Units across four other FEDs.

171. Output 3.2: Buffer zones and corridors embedding protected areas and protected forests within the wider production landscape

172. DKM worked with the GDF to analyze specific species habitat requirements, and sensitive ecological zones that are outside of the designated conservation zones, in order to develop and apply specialized management measures for biodiversity in buffer areas and corridors. For example, for species where there is data on seasonal migrations, migration corridors were identified and mapped. In other areas, such as breeding zones for birds, additional management measures were identified, such as protecting small forest grasslands, wetlands, and old growth

stands. Species were analysed such as the *Vipera anatolica*, an endangered species. Along with amphibians, a detailed study was conducted, analysing the distribution of the species in the field, and their possible future distribution areas due to environmental effects. Camera traps were also used to record large mammals, such as different species of brown bear and lynx. For the first time in recent modern time, studies were also conducted for inland water fish, and the species were classified in terms of their danger levels.

173. Appropriate forest management measures for these areas were identified and incorporated in the Forest Management Plans: In Köyceğiz, Pos and Andırın FEDs, integration of biodiversity values and application zones 1 and 2 and buffer zones were created. Especially in Köyceğiz FED, a "wildlife" corridor was created so as to allow the integration of wild animal migration routes into the forest management plans.

174. Output 3.3: Site-level partnerships for ecotourism and NWFP management established

175. The inclusion of eco-tourism and NWFP priorities in the management planning process was also a new approach in the integrated approach to forest management. To achieve this, the natural values and priorities of the pilot sites were identified through detailed surveys and the findings were included into the forest management plans. The socio-economic study completed under Output 2.3 also covered socio-economic aspects relevant under Output 3.3, i.e. ecotourism and NWFPs.

176. In terms of eco-tourism, two ecotourism plans were prepared for Köyceğiz and Pos pilot sites. The actions identified were integrated into the plans and the project contributed to the implementation of one of the plans through selected activities in Köyceğiz pilot site. The GDF approved the plans, and invested in the corresponding infrastructure, such as signs and information boards, and established the ecotourism routes. DKM supported capacity development of the GDF in this area through training at the national level on ecotourism planning and development in forest areas.

177. A similar approach was adopted for NWFPs and three value chain surveys were undertaken targeting daphne (laurel), thyme and carob. All documents are available in English. Similar to the eco-tourism approach, the project has identified the daphne (laurel) as the key demonstration project in Andirin pilot site.

178. The activities under Output 3.3 were focused on identifying and increasing economic benefits from forests other than through timber, in order to benefit local forest-dependent communities. However, it is too early at this stage to gauge measurable socio-economic benefits.

D. Impacts and Global Environmental Benefits

179. The GEF Evaluation Office and UNDP require a rating on project impact, which in the context of the GEF biodiversity and land degradation focal areas relates to actual change in environmental status (e.g. improvements in status of species or ecosystem, reduced land degradation, land restored, etc.). In the context of the climate change focal area, this relates to GHG mitigation.

180. The project results framework included species-specific impact indicators for biodiversity, but it was determined during project implementation that assessing biodiversity impacts via these indicators was not feasible. Following a recommendation from the MTR, the project adjusted the approach to focus on tracking suitable habitat for target species.

181. The project also had positive impacts in terms of land degradation aspects, particularly with regard to improvement in fire management, as described under Output 2.1.

182. In terms of the climate change, the project activities also had positive GHG mitigation impacts. The total GHG emissions avoided has been calculated as 483,132.82 tCO2 over 20 years. The direct carbon sequestration from project activities has been calculated at 1,815,262 tC02 over 20 years. For example, the silvicultural activities covering 9,200 ha that were supported by the project (Output 2.3) are expected to generate 11,572 tCO2/y. The cumulative net carbon benefit associated with conservation areas in the 5 pilot sites (Component 3) is estimated at 207,315 tCO2e as of 2019.

183. More important than short-term impacts, the project has contributed to multiple large scale outcome-level results which will have positive benefits for forestry in Turkey for many years (potentially the next 50 years). These outcome level results are likely to contribute to numerous long-term impacts in the future.

184. Impact ratings for the project are assessed as follows:

- *Environmental status improvement* is assessed as **minimal;**
- *Environmental stress reduction* is assessed as **significant;** and
- *Progress toward stress/status change* is assessed as **significant.**

VII. Key GEF Performance Parameters

185. The GEF has 10 operational principles, some of which are inherently covered by the five main evaluation criteria, and some of which are not. The key performance parameters that are not covered previously in this evaluation report are sustainability, catalytic role, and gender mainstreaming. UNDP-GEF project evaluations are also required to discuss the mainstreaming of UNDP program principles; this is covered in Annex 12 of this evaluation report.

A. Sustainability

186. Sustainability is one of the five main evaluation criteria, as well as being considered one of the GEF operational principles. While a sustainability rating is provided here as required, sustainability is a temporal and dynamic state that is influenced by a broad range of constantly shifting factors. It should be kept in mind that the important aspect of sustainability of GEF projects is the sustainability of results, not necessarily the sustainability of activities that produced results. In the context of GEF projects there is no clearly defined timeframe for which results should be sustained, although it is implied that they should be sustained indefinitely. When evaluating sustainability, the greater the time horizon, the lower the degree of certainty possible.

187. Based on GEF evaluation policies and procedures, the overall rating for sustainability cannot be higher than the lowest rating for any of the individual components. Therefore, the overall **sustainability** rating for the Turkey SFM project for this terminal evaluation is ***moderately likely***.

188. While sustainability is considered moderately likely, all project participants recognize the need to sustain and maintain the project results over time. This includes ensuring ongoing

monitoring of the implementation of the integrated forest management plans, as well as other key project results. As one project participant stated, *"Mainly the project is a project which was in harmony with the main goals and results [of the GDF], so from that point it is a really successful project. Sustainability of the project is really important, because the forestry issues are important but take a long time, so they need to be followed up. So monitoring of those results is really important for sustainability and for long-term success of the project."*

189. There are four important aspects of risks to sustainability: financial, socio-political, institutional and governance, and environmental.

190. Financial risks are not considered a major risk for the sustainability of project results, and sustainability in this regard is considered likely. However, following project completion, the speed and extent to which project results are scaled-up and replicated more widely within Turkey will be dependent on GDF's financial resources. There are also a number of project results that could move on to next critical steps with additional financial resources, such as the project's work on carbon monitoring, full implementation of the DSS, integration of SFM Criteria and Indicators into field-level FMPs, more comprehensive work on forest inventory through remote sensing data, and pest management.

191. Socio-political risks to project results remain moderate, and sustainability in this regard is considered moderately likely. The project did include a number of activities that focused on socio-economic benefits of forests, particularly in the Koycegiz area relating to ecotourism. There were also analyses conducted in relation to the economic values of NWFPs. The immediate next steps and follow-up on these activities is not immediately apparent, however. Some project participants felt that the socio-economic aspects could have been stronger in the project though, particularly in terms of taking a deeper approach to financial benefits for forest resource users. In the work on SFM Criteria and Indicators, the indicators do include an indicator specifically on this issue: "Indicator 6.8: Transfer of Income From Forestry Sector to Forest Villagers", and it would have been useful if the project could have made more progress on testing the implementation of this indicator. At the same time, in relation to the development of the 28 integrated FMPs in the project pilot FEDs, there was strong stakeholder engagement and consultation, and therefore the implementation of the FMPs developed through the project should have good stakeholder support, and therefore low socio-political risks.

192. Institutional and governance risks are not seen as a critical issue for sustainability at this stage, and this aspect of sustainability is likely. As one project participant stated, "The understanding of the [GDF] management, and the policy of the ministry, is linked with and is the same as the project results, so that understanding and policy could not be changed, even if some of the people will be changed. Even if they change all of the departments and people working at the same time it would not be a big risk because the importance of the issues are already in the policies of the ministry." In addition, under Output 1.2 the project catalyzed the formal establishment of the Sustainability Commission (also "Working Group") within GDF. The Sustainability Commission worked to develop a sustainability plan for the continuation and further work of the key project results. The long-term mission of the Sustainability Commission is to continue coordination and further work on the key issues addressed by the project.

193. Environmental risks to sustainability are limited, but do exist. This aspect of sustainability is considered moderately likely. As the economic situation in Turkey continues to remain

challenging over time, there may be increasing pressure on forests for timber harvesting. In addition, climate change remains an increasing challenge. The project worked on analyzing forests' vulnerability to climate change, but there will continue to be an increasing need for attention to managing forests in the face of climate change, and variable effects related to fires, pests, etc. The environmental pressure of illegal wood cutting is decreasing as Turkey continues to see rural abandonment, like much of the world. However, there remains pressure on NTFPs, which are seen as a source of income generation for poor rural communities, not just a subsistence resource.

B. Catalytic Role: Replication and Up-scaling

194. There are numerous elements of the project that have or are expected to have a catalytic influence through up-scaling and replication at the national level, as well as possibly the international level. The results of the Turkey SFM project have major strengths in this regard, and this is among the reasons that the project should be considered highly satisfactory.

195. The project's work to fully develop and approve at the national level Sustainable Forest Management Criteria and Indicators is a key area that will have a catalytic effect, as the criteria and indicators are fully implemented at the national level. There remains a need to develop the approach for integrating the criteria and indicators at the Forest Management Unit level, into individual FMPs, in a way that can be fully monitored and reported. As one project participant stated, *"The GDF will continue to scale up, one by one, pixel by pixel. The more pixels you have, the clearer the picture becomes. The project established the core."*

196. At the international level, there is significant potential for the Turkish SFM Criteria and Indicators to be replicated in other countries. There are initial steps in this regard already; Turkey is providing technical inputs to Kazakhstan on developing SFM criteria and indicators in the context of the project "Accountability Systems for Sustainable Forest Management in the Caucasus and Central Asia", which is a United Nations Development Account funded project carried out from 2016-2020, involving Armenia, Georgia, Kazakhstan, Kyrgyzstan, and Uzbekistan. For example, representatives involved in the Turkey SFM project presented Turkey's experience at the Second National Workshop on Criteria and Indicators for Sustainable Forest Management in the Republic of Kazakhstan in Astana, in September 2018.

197. The forest management planning DSS developed by the project is being put into operation by the GDF as an institution, though relevant data has to be added at the individual FMU level for areas of Turkey outside the main project target area of the Mediterranean zone. This is an ongoing process, but it is fully anticipated that the DSS will be fully upscaled within Turkey in coming years. In addition, the DSS has the potential to be deployed to other countries that are lacking these types of tools, and again, a key area for this may be Central Asia.

198. The project's work with the NCC to integrate biodiversity into forest management plans is also being replicated to other regions and FEDs. In the period 2020-2021 the NCC is working with the following FEDs to replicate the project's work on mainstreaming biodiversity conservation in forest management plans:

a. Erzurum Regional Forestry Directorate – Erzurum FED – 6 Forest Management Units
b. Erzurum Regional Forestry Directorate – Sarikamis FED – 5 Forest Management Units
c. Erzurum Regional Forestry Directorate – Ardahan FED – 5 Forest Management Units

d. Istanbul Regional Forestry Directorate – Vize FED – 9 Forest Management Units

199. The integration of biodiversity in these FED FMPs are listed among the main activities in the work plan of the GDF Biodiversity Working Group.

200. According to project participants, the GDF is also planning to incorporate good practices and lessons from this project into the next GEF-funded project on forestry, to be carried out in partnership with FAO for the GEF-7 period, focusing on the Kaz Mountains of Turkey.

201. Although the project objective was achieved in terms of integrated forest management planning in the Mediterranean demonstration region, the main shortcoming of the project in terms of replication and upscaling is the current infeasibility of replicating the integrated FMP approach in a widespread way at the national level. Project participants highlighted how useful and important the integrated approach supported by the project is, which brings together forest management aspects related to NTFPs, biodiversity, fire management, carbon management, pest management, and ecotourism. At the same time, project participants noted that the GDF has 2,140 FMUs nationally, and with a 10-year planning cycle, this means that 214 FMPs should be completed each year; in reality, the GDF currently only has the capacity to complete approximately 100 FMPs each year, which is still an impressive figure. The project produced 28 FMPs over a 3-4 year period. All project stakeholder recognized the importance of the project-supported integrated and comprehensive approach, involving numerous stakeholders and external technical experts. However, this approach can clearly not be easily translated and upscaled to the national level that requires 100-200 FMPs produced per year. Doing so would require large increases in GDF financial resources, and in any case, in the short-term, would not be feasible based on the limited supply of technical experts in Turkey. Project participants highlighted the fact that an integrated approach to SFM is slowly being upscaled through modifications to national level regulations and planning guidelines, but this process is slow, and depends on technically capable staff.

C. Gender Equality and Mainstreaming

202. The UNDP GEF Gender Equality Strategy for 2014-2017 was not yet developed at the time of the project development phase from 2011-2012. Despite this, the project document did include discussion on gender roles and gender mainstreaming aspects (p. 35 of the Prodoc). The Prodoc did include a short 1-page annex (Annex L) on “Incorporation of gender aspects in the project”. However, the project did not have a comprehensive, standardized gender analysis, and the original project results framework did not include gender-disaggregated indicators (or any indicators on beneficiaries, for that matter).

203. The attention to gender issues and the approach toward gender mainstreaming during implementation followed in-step with the degree to which gender was considered during the project development phase. That is to say, gender issues were considered, but were not strongly integrated in project activities. The UNDP Turkey Country Office has a gender expert, who encouraged as much attention to gender issues in the project as was feasible, but since gender was not strongly integrated in the project design, there were no major achievements in terms of gender (and gender-related results were not closely monitored). As summarized in the 2019 PIR, *“A socio- economic study focusing on forest villagers in the pilot sites finalized and gender related questions were included in the field studies. Country Office gender advisor has contributed to this*

first ever forest village level socio-economic study to establish gender focused perspective." Some technical aspects of sustainable forest management, biodiversity conservation, or other issues do not have high gender relevance, but under current approaches and policies, gender mainstreaming aspects could have been considered much more strongly than they were. Nonetheless, given that GDF is a male-dominated institution, project participants felt that the awareness of gender in forestry issues had increased by the end of the project.

204. One of the most prevalent aspects of the project where gender was considered was in the ecotourism development and NWFP activities. The project contracted a consultant to support these activities who also had good experience in gender issues. During the trainings with local stakeholders on ecotourism there was not a specific session on gender, but there was attention to ensuring gender-balanced participation in the trainings. During some of the socio-economic research conducted in some of the more conservative rural areas the project team and consultants employed innovative approaches to ensure that women's views and inputs were collected, such as having female staff proactively participating in meal preparation and clean-up in the kitchen, where no men were present, and where women feel more free to speak and provide feedback.

VIII. Main Lessons Learned and Recommendations

A. Lessons from the Experience of the Turkey SFM Project

205. The terminal evaluation has identified the below notable lessons from the experience of the Turkey SFM project. These lessons should be aggregated by UNDP for application to other similar future initiatives.

a) **Having execution arrangements where project technical experts have the support to work directly with technical experts from the main beneficiary partner can lead to project efficiencies and synergies.** In the Turkey SFM project the project's technical experts on topics such as fire prevention and forest management worked directly with their respective GDF counterparts, with additional coordination support from the PMU.

b) **Tracking biodiversity impacts can be challenging when attempting to apply strictly population-based tracking indicators for certain types of species**, which requires comprehensive field monitoring, or needs to be linked in with existing monitoring practices with other partners. On the other hand, an alternative approach when a key threat to certain species is habitat loss and quality, is to track the area of quality habitat, applying the assumption that quality habitat will lead to population increases over time. This incorporates the assumption that other non-habitat related issues aren't major threats, such as poaching, or wildlife disease.

c) **Institutionalizing project results and outputs can take a long time, and this process should be planned for in project development.** This requires dedicated time and resources for institutionalizing and sustaining key results, in order to support sustainability and upscaling. The Turkey SFM project did not explicitly include this aspect in project planning, but with the extended project implementation time, and with the support from key project partners including DKM, the project was able to make good headway on integrating project guidelines and specific SFM management approaches within GDF.

d) **Staff turnover is a key issue within many government institutions, which must be acknowledged and planned for from the very beginning of any project** for which the results depend on having a strong institutional partner (this includes a large majority of GEF-funded projects). The key strategy to meeting this challenge is to ensure the project's partnership approach is at an institutional level, that results are well integrated into institutional training and standardized procedures, and to ensure adequate time to regularly inform and engage government staff when turnover does occur. The Turkey SFM project took this approach and met this challenge, but this risk was not fully recognized at the project development stage, as it was not included in the project risk analysis.

e) **Engaging well-qualified civil society organizations as execution partners can have significant benefits for a project.** This can reduce pressure on UNDP and the national execution partner, and such organizations often have highly valuable technical expertise to contribute. In the case of the Turkey SFM project, the NGO Nature Conservation Center (NCC, or DKM in Turkish) was an invaluable partner, particularly in terms of integrating biodiversity into forest management planning.

f) **The project did an excellent job producing outputs in English** and Turkish, which greatly helps the relevance of the project outputs for scaling up and replication at the international level.

g) **It would have been preferable if the project activities could have been sequenced so that the SFM Criteria and Indicators had been completed before the work on the FMPs**, so the criteria and indicators could have been fully integrated into the FMP planning process, but this was not feasible with the time available for the project activities.

h) Forest pest management is a complex issue that does not yet have a deep and robust body of international knowledge, and therefore planned results in relation to pest management in SFM projects should be realistic and initially small scale.

i) **It can take significant amounts of time for large, established institutions to accept and absorb new practices and management approaches, especially when these relate to new concepts, or involve new technologies.** The project's work on MRV, the Decision Support System, and the activities on forest inventory through remote sensing data required a lot of time for the GDF to understand the implications and begin to integrate these tools into actual forest management practices. According to project participants, the initiative on forest inventory through remote sensing data was initially only partially accepted.

j) **It is beneficial to consider socio-economic aspects of forest management from the early design and planning stages of any SFM project.** The Turkey SFM project was very focused on technical aspects of forest management, including fire management, biodiversity, and carbon storage. The project did include a number of activities related to socio-economic aspects, such as the activities on ecotourism and analysis of NWFPs, but some project participants felt that the project's approach to these socio-economic issues could have been both deeper and broader, and better integrated with the other aspects of forest management. As one project participant stated, *"Maybe we could have included more aspects regarding local people who earn money from the forest, or who economically depend on the forest where they are living and working with the forest products. There may be some more ways to think of to improve their economic benefits from living near the forest."*

k) One positive lesson from the project's activities on local stakeholder training related to ecotourism is that **it is highly beneficial for the impact of the training, the focus and attention of the group, and for building networks if the training is held off-site**, at a location sufficiently distant from where trainees live and work, such that trainees are required to spend the night and share meals. This approach helps trainees "tune out" other distractions, keeps participants from leaving for a few minutes here and there to go back to their office or otherwise multitask during the training. In the case of the ecotourism training, having the participants stay overnight at a separate training location created social bonds among participants which has led to a sustained network of local stakeholders who are interested in promoting ecotourism in the Koycegiz area; the group continues to stay in-touch through a WhatsApp group via mobile phone.

l) **It is best to plan trainings involving local stakeholders at a time of year that is most conducive to ensuring high participation.** In the Turkey SFM project, the training on ecotourism for local communities and resource users was in the summer, which is a time that many people are fully occupied with their subsistence livelihood or their summer seasonal work. This resulted in the fact that fewer people were able to attend the training than planned.

m) Another positive lesson related to the ecotourism training is that **it is highly effective to have real life examples of success stories for trainees to listen to and learn from.** In the training organized by the project there were three representatives from other regions of Turkey who were able to present their positive examples; these included a representative of a community-based tourism organization, a woman who cultivates flowers and started to attract tourism, and a representative of a municipality that increased tourism by drawing attention to and highlighting the production of local ecological specialties.

n) One other lesson related to the project's work on local ecotourism development is that **building local ecotourism value chains among different types of private sector actors and stakeholders requires a sustained effort over a period of at least 1-2 years.** For example, the engagement of local hotels and travel agencies from Koycegiz in the ecotourism training activities was less than ideal, because to effectively engage these stakeholders requires multiple meetings and visits over an extended period of time, just one visit is not enough. It would have been beneficial for the project to create a local ecotourism value chain network that links rural producers of ecological goods with hotels, for example to supply fresh fruits and vegetables and other food products. Local hotels and travel agencies could also serve as key links for booking tourists for other more rural ecotourism experiences organized by villages away from the main center of Koycegiz.

o) **Effective gender mainstreaming in rural areas may require creative and innovative approaches.** In some regions of some countries it can be challenging to effectively engage women in rural areas where the presence or input of women in affairs outside of the home is not typically expected or accepted. However, there are opportunities and ways to increase the effectiveness of gender mainstreaming approaches. Hiring female facilitators is often key, as women are more willing to speak freely with other women, and female consultants may be able to find opportunities to allow women to provide input in private, such as while working together in the kitchen after a meal, where no men are present.

p) **When developing or implementing new technologies or new technological tools, it can be highly beneficial for the supporting experts to have adequate in-person time meeting with the end-user audience to ensure there is full understanding of the end users' needs and priorities.** This ensures that the uptake and roll-out of new technologies and tools is a rapid and smooth as possible. In the case of the Turkey SFM project, the project developed the SFM Decision Support System as a software application from scratch, and also piloted the use of remote-sensing data for inventorying forest management areas. For both of these approaches project participants felt that the process could have been improved with more time spent in-person at the beginning discussing end-user needs and priorities. This would have required increased travel from international partners.

q) Tangential to the above lesson, **UNDP-GEF project developers should ensure that travel budget for external support providers is adequately planned and conservatively budgeted.** For the Turkey SFM project, some aspects of the project could have been more efficient if external experts had been able to spend more time in Turkey working directly with their GDF counterparts. This does not require large amounts of expenditure, but should include 2-4 weeks of travel per year for experts involved in each separate project output.

B. Recommendations at Completion of the Turkey SFM Project

206. The recommendations of the terminal evaluation are listed below.

Recommendations Table

Rec #	TE Recommendation	Entity Responsible	Timeframe
1.	UNDP and GDF should ensure that the various technical trainings conducted during the project are packaged into training modules, and then fully integrated in regular GDF training programs.	UNDP, GDF	Immediate
2.	To further support the sustainability of project results, GDF and its partners should continue working to develop and implement a monitoring system for tracking SFM outcomes in the implementation of FMPs, especially with respect to biodiversity.	GDF, UNDP, NCC	Immediate
3.	UNDP should explore all possibilities to continue the development of the DSS, and its global dissemination, including the development of a user manual that could be translated into multiple languages.	UNDP	Immediate
4.	Projects should have multi-stakeholder steering committees, with all major stakeholders or stakeholder groups represented. This is one way to strengthen stakeholder ownership, stakeholder engagement, coordination, cooperation, and transparency in the implementation of GEF projects. In the case of the Turkey SFM project this was not a major issue, but future UNDP-GEF projects in Turkey should implement such a mechanism to ensure optimum stakeholder engagement during project implementation.	UNDP	Immediate

5.	GDF should continue implementing new technologies to increase the efficiency of forest inventory and forest management in Turkey. Specifically, the GDF should invest in a national level forest inventory supported by remote sensing data. In addition, the GDF should fully scale-up the application of the DSS to the national level as soon as possible. Increasing the efficiency of Forest Management Planning is the only feasible way to accelerate the uptake of integrated forest management planning approaches.	GDF	Immediate
6.	UNDP, GDF, and other partners (e.g. FAO) should work to develop a landscape-level strategic approach to SFM, in order to increase efficiency and effectiveness of integrated forest management planning. This has been initiated to some extent with support from NCC, but if implemented more widely would have potential to improve SFM results over time.	UNDP, GDF	Immediate
7.	Most GEF FSPs are designed to be implemented over 4-5 years. Yet, the long-term impact and sustainability of results for many projects depends on institutionalizing project results within key national environmental management institutions, such as the GDF. These processes can take years. The GEF and UNDP should design and develop projects that specifically include outputs on institutional capacity development, and the institutionalization of project results. GEF projects should be planned for 6-7 years to successfully implement these types of activities. For many GEF projects the current implementation timeframes have not been adequate to ensure project outputs are institutionalized for long-term outcomes and impacts. Long-term strengthening of national-level natural resource and environmental management institutions is a critical strategic direction for the GEF to embrace for the future generation of Global Environmental Benefits.	GEF Secretariat, UNDP	Immediate

IX. Annexes

Annex 1: Terms of Reference

Annex 2: GEF Operational Principles

Annex 3: Evaluation Matrix for the Turkey SFM Project Terminal

Annex 4: Interview Guide

Annex 5: Rating Scales

Annex 6: Key Informants Interviewed

Annex 7: Documents Reviewed

Annex 8: Turkey SFM Project Financial Tables

Annex 9: Turkey SFM Project Results Framework Assessed Level of Indicator Target Achievement

A. Annex 1: Terms of Reference

Note: Annexes of the TORs have been left out of this TE annex due to space considerations, but they were included with the actual TORs, and are available upon request.

Annex – I: Terms of Reference

International Consultant for Terminal Evaluation for UNDP/GEF Project: PIMS 4434: Integrated Approach to Management of Forests in Turkey, with Demonstration in High Conservation Value Forests in the Mediterranean Region (SFM)

1. BACKGROUND

UNDP Turkey and General Directorate of Forestry (GDF) work in close collaboration to enhance Turkey's efforts for Sustainable Forest Management (SFM). The existing collaboration on sustainable forest management between the GDF and UNDP advances the synergy between forest and sustainable development with special emphasis on climate change mitigation and biodiversity. This partnership will further strengthen and may become more beneficial when the UNDP Turkey Country Office and Ministry of Forestry and Water Affairs start sharing the existing reservoir of knowledge and experience with other countries through collaborative partnerships.

One of the projects in collaboration with the GDF is a 5 year long (2013-2018) GEF Full Size Project, namely Integrated Approach to Management of Forests in Turkey, with Demonstration in High Conservation Value Forests in the Mediterranean Region, aka SFM GEF Project. The project has a unique structure with its multi focal area objectives (i.e. Climate Change Mitigation, Sustainable Forest Management and Biodiversity) which would provide opportunities to implement activities in a holistic way for integrating forests with environmental and land use policies, rural development, wood and non-wood products and services. More particularly, the project will demonstrate approaches to generating, measuring, reporting on, and verifying carbon, biodiversity and socio-economic benefits generated through this integrated approach at five Mediterranean forest sites (over a total area of 450,000 ha).

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the **Integrated Approach to Management of Forests in Turkey, with Demonstration in High Conservation Value Forests in the Mediterranean Region (PIMS 4434).** The Consultant shall serve for terminal evaluation of all components.

In the view of the above, the Consultant will serve for Terminal evaluation of the Integrated Approach to Management of Forests in Turkey, with Demonstration in High Conservation Value Forests in the Mediterranean Region (SFM) Project.

2. OBJECTIVE AND SCOPE

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The consultant as Terminal Evaluation Expert will be conducted the evaluation of the project according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

1

3. DUTIES AND RESPONSIBILITIES OF INDIVIDUAL CONSULTANT (IC)

The generic duties and responsibilities of the IC are as follows:

- Preparing detailed methodology, work plan and outline;
- Preparing Terminal Evaluation Report with findings;
- Submitting lessons learned and recommendations for improvement, including recommendations for the revision of project strategy, approach, outputs and activities, if necessary;
- Providing recommendations for a strategy for future replication of the project approach for other types of the climate change and sustainable energy financing projects, for other countries in the region;
- Preparing description of best practices, and an "action list" in a certain area of particular importance for the project;
- Reviewing the documents listed in Annex 2b.

If required by the UNDP Project Team, the IC could provide additional consultancy services on topics related to her/his expertise area for other activities within the scope of this Terms of Reference.

4. INSTITUTIONAL ARRANGEMENTS

UNDP will provide to IC all relevant background documents. UNDP is not required to provide any physical facility for the work of the IC. However, depending on the availability of physical facilities (e.g. working space, computer, printer, telephone lines, internet connection etc.) and at the discretion of the UNDP and relevant stakeholders, such facilities may be provided at the disposal of the IC.

The IC shall report to Biodiversity and Natural Resources Cluster Lead of UNDP Turkey. The IC shall conduct the Terminal Evaluation in collaboration with Monitoring & Evaluation Advisor of CCE Portfolio at UNDP CO. The IC cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project's related activities.

The principal responsibility for managing this evaluation lies with UNDP Country Office in Turkey. UNDP will assign a facilitator to set up the stakeholder interviews, arrange the field visits, coordinate with the GDF and provide translation (when necessary).

In preparation for the evaluation mission, Biodiversity and Natural Resources Cluster Lead, with assistance of UNDP CO, will arrange completion of the Management Effectiveness Tracking Tool (METT). Results of METT should be used by an international project evaluation consultant, who will provide his/her comments and track the progress in management effectiveness of project sites. Upon incorporation of the evaluator's comments the METT will be finalized and the results should be attached as a mandatory Annex to the Terminal Evaluation report. **This Terms of Reference follow the UNDP-GEF policies and procedures.**

5. DELIVERABLES

The core product of the Terminal Evaluation will be the Terminal Evaluation Report and Rating Tables given in Annex 2 of this Terms of Reference. IC shall be responsible to submit the following deliverables.

Activity	Milestone/Deliverables	Estimated Deadline	Estimated Number of Days to be invested*
Preparation	**Inception Report:** Desk review, development of methodology, updating timetable, drafting mission programme. Incorporating comments received from UNDP Country Office (if necessary).	**15 April 2020**	5
Evaluation Mission	In-country field visits, interviews, preliminary mission findings briefing(s), debriefings with project partners and providing aide memoire. Delivering a presentation on aide memoire (finding(s) and recommendation(s)) to Project Partners.	**20 May 2020**	10
Draft Evaluation Report	Submission of **Draft Terminal Evaluation report**	**22 June 2020**	7
Final Evaluation Report	**Finalization of the Terminal Evaluation Repor**t in line with the comments received from the relevant stakeholders regarding the Draft MTR Report.	**30 June 2020**	3
		Total Number of days	25

Each and every activity to be conducted by the IC is subject to UNDP approval. Each step shall be conducted upon approval of the previous step by UNDP.

When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail' (audit trail document will be provided), detailing how all received comments have (and have not) been addressed in the final evaluation report.

3

*Number of days to be invested for each deliverable may change but the **total number of days worked by the individual contractor cannot exceed 25 days for this assignment** (i.e. for submission of the deliverables) as defined in the ToR.

Reporting Line

The IC shall be responsible to the Biodiversity and Natural Resources Cluster Lead for the completion of the tasks and duties assigned in Section 5. Deliverables of this ToR. All of the reports are subject to approval from Biodiversity and Natural Resources Cluster Lead in order to realize the payments to the IC.

Reporting Language

The reporting language shall be in English.

Title Rights

The title rights, copyrights and all other rights whatsoever nature in any material produced under the provisions of this TORs will be vested exclusively in UNDP.

6. MINIMUM QUALIFICATION REQUIREMENTS

The expected qualifications of the expert are as follows:

	Minimum Requirements	Assets
General Qualifications	□ Bachelor's Degree in environmental studies/economics/Engineering/ natural resources/business administration. (5 Points) □ Fluency in English. (5 Points) □ Full computer literacy. (4 Points)	□ **Asset:** Masters or Higher Degree in natural resources/biology/forestry/ climate change/ environmental economics/ engineering/ business administration/ economics. (7 Points)
General Professional Experience	□ Minimum ten (10) years of relevant professional experience. (15 Points)	□ **Asset:** More than fifteen (15) years of relevant professional experience (7 Points)
Specific Experience	□ 5 years of specific professional experience in environmental projects /forestry projects/ biodiversity/ monitoring and evaluation of projects. (20 Points)	□ **Asset:** Monitoring and evaluation experience in GEF funded projects. (7 Points)
Notes: □ Internships (paid/unpaid) are not considered professional experience. □ Obligatory military service is not considered professional experience. □ Professional experience gained in an international setting is considered international experience. □ Female candidates are encouraged to apply.		

7. TIMING AND DURATION

The assignment is planned to be started in **18 March 2020** and be completed by **15 July 2020**. The IC is expected to invest **(at maximum) 25 working days** throughout the contract duration as per the Deliverable Table in Section 5.

8. PLACE OF WORK

Place of work (duty station) for the assignment is home-based.
There are *missions to Ankara and selected project sites*. The mission shall be a minimum of 10 working days in Turkey, although this may be conducted as two shorter missions with the mutual agreement of the IC and UNDP Turkey, provided that the total number of days spent in Turkey is not less than 10 working days. The mission to Turkey will cover days spent in Ankara, as well as days spent to visit project sites and also possibly a day or days in Istanbul for relevant meetings. All travel related costs (cost items indicated below) of these missions out of the duty station (economy class flight ticket and accommodation in 3 or 4-star hotel) will be borne by UNDP. Approval of UNDP is needed prior to the missions is needed. The costs of these missions may either be;

- Arranged and covered by UNDP CO from the respective project budget without making any reimbursements to the consultant or
- Reimbursed to the consultant upon the submission of the receipts/invoices of the expenses by the consultant and approval of the UNDP. The reimbursement of each cost item subject to following constraints/conditions provided in below table;
- covered by the combination of both options

Cost item	Constraints	Conditions of Reimbursement
Travel (intercity transportation)	full-fare economy class tickets	1- Approval by UNDP of the cost items before the initiation of travel 2- Submission of the invoices/receipts, etc. by the consultant with the UNDP's F-10 Form 3- Acceptance and Approval by UNDP of the invoices and F-10 Form.
Accommodation	Up to 50% of the effective DSA rate of UNDP for the respective location	
Breakfast	Up to 6% of the effective DSA rate of UNDP for the respective location	
Lunch	Up to 12% of the effective DSA rate of UNDP for the respective location	
Dinner	Up to 12% of the effective DSA rate of UNDP for the respective location	
Other Expenses (intra city transportations, transfer cost from /to terminals, etc.)	Up to 20% of effective DSA rate of UNDP for the respective location	

9. PAYMENTS

Payments will be made within 30 days upon acceptance and approval of the corresponding deliverable by UNDP on the basis of actual number of days invested in that respective deliverable and the pertaining Certification of Payment document signed by the IC and approved by the responsible Cluster Lead.

The total amount of payment to be affected to the IC within the scope of this contract **cannot exceed 25 working days**. The IC shall be paid in USD if he/she resides in a country different than Turkey. If he/she resides in Turkey, the payment shall be realized in TL through conversion of the USD amount by the official UN exchange rate valid on the date of money transfer.

If the deliverables are not produced and delivered by the IC to the satisfaction of UNDP as approved by the responsible Cluster Lead, no payment will be made even if the IC has invested man/days to produce and deliver such deliverables.

Expected delivery dates of the reports will be finalized by UNDP during the Briefing Meeting that will be conducted upon contract signature.

The amount paid to the IC shall be gross and inclusive of all associated costs such as social security, pension and income tax etc.

Tax Obligations: The IC is solely responsible for all taxation or other assessments on any income derived from UNDP. UNDP will not make any withholding from payments for the purposes of income tax. UNDP is exempt from any liabilities regarding taxation and will not reimburse any such taxation to the IC.

B. Annex 2: GEF Operational Principles

http://www.gefweb.org/public/opstrat/ch1.htm

TEN OPERATIONAL PRINCIPLES FOR DEVELOPMENT AND IMPLEMENTATION OF THE GEF'S WORK PROGRAM

1. For purposes of the financial mechanisms for the implementation of the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, the GEF will **function under the guidance of, and be accountable to, the Conference of the Parties** (COPs). For purposes of financing activities in the focal area of ozone layer depletion, GEF operational policies will be consistent with those of the Montreal Protocol on Substances that Deplete the Ozone Layer and its amendments.

2. The GEF will provide new, and additional, grant and concessional funding to meet the agreed **incremental costs** of measures to achieve agreed global environmental benefits.

3. The GEF will ensure the **cost-effectiveness** of its activities to maximize global environmental benefits.

4. The GEF will fund projects that are **country-driven** and based on national priorities designed to support sustainable development, as identified within the context of national programs.

5. The GEF will maintain sufficient **flexibility** to respond to changing circumstances, including evolving guidance of the Conference of the Parties and experience gained from monitoring and evaluation activities.

6. GEF projects will provide for **full disclosure** of all non-confidential information.

7. GEF projects will provide for consultation with, and **participation** as appropriate of, the beneficiaries and affected groups of people.

8. GEF projects will conform to the **eligibility** requirements set forth in paragraph 9 of the GEF Instrument.

9. In seeking to maximize global environmental benefits, the GEF will emphasize its **catalytic role** and leverage additional financing from other sources.

10. The GEF will ensure that its programs and projects are **monitored and evaluated** on a regular basis.

C. Annex 3: Evaluation Matrix for the Turkey SFM Project Terminal Evaluation

Evaluation Questions	Indicators	Sources	Data Collection Method
Evaluation Criteria: Relevance			
• Does the project's objective align with the priorities of the local government and local communities?	• Level of coherence between project objective and stated priorities of local stakeholders	• Local stakeholders • Document review of local development strategies, environmental policies, etc.	• Local level field visit interviews • Desk review
• Does the project's objective fit within the national environment and development priorities?	• Level of coherence between project objective and national policy priorities and strategies, as stated in official documents	• National policy documents, such as National Biodiversity Strategy and Action Plan, National Capacity Self-Assessment, etc.	• Desk review • National level interviews
• Did the project concept originate from local or national stakeholders, and/or were relevant stakeholders sufficiently involved in project development?	• Level of involvement of local and national stakeholders in project origination and development (number of meetings held, project development processes incorporating stakeholder input, etc.)	• Project staff • Local and national stakeholders • Project documents	• Field visit interviews • Desk review
• Does the project objective fit GEF strategic priorities?	• Level of coherence between project objective and GEF strategic priorities (including alignment of relevant focal area indicators)	• GEF strategic priority documents for period when project was approved • Current GEF strategic priority documents	• Desk review
• Was the project linked with and in-line with UNDP priorities and strategies for the country?	• Level of coherence between project objective and design with UNDAF, CPAP, CPD	• UNDP strategic priority documents	• Desk review
• Does the project's objective support implementation of the Convention on Biological Diversity, the Convention to Combat	• Linkages between project objective and elements of the CBD, UNCCD, and UNFCCC, such as key articles and programs of work	• Convention website • National Strategies and Action Plan for each convention	• Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
Desertification, and the UNFCCC? Other relevant MEAs?			
Evaluation Criteria: Efficiency			
• Is the project cost-effective?	• Quality and adequacy of financial management procedures (in line with UNDP, and national policies, legislation, and procedures) • Financial delivery rate vs. expected rate • Management costs as a percentage of total costs	• Project documents • Project staff	• Desk review • Interviews with project staff
• Are expenditures in line with international standards and norms?	• Cost of project inputs and outputs relative to norms and standards for donor projects in the country or region	• Project documents • Project staff	• Desk review • Interviews with project staff
• Is the project implementation approach efficient for delivering the planned project results?	• Adequacy of implementation structure and mechanisms for coordination and communication • Planned and actual level of human resources available • Extent and quality of engagement with relevant partners / partnerships • Quality and adequacy of project monitoring mechanisms (oversight bodies' input, quality and timeliness of reporting, etc.)	• Project documents • National and local stakeholders • Project staff	• Desk review • Interviews with project staff • Interviews with national and local stakeholders
• Is the project implementation delayed? If so, has that affected cost-effectiveness?	• Project milestones in time • Planned results affected by delays • Required project adaptive management measures related to delays	• Project documents • Project staff	• Desk review • Interviews with project staff
• What is the contribution of cash and in-kind co-financing to project implementation?	• Level of cash and in-kind co-financing relative to expected level	• Project documents • Project staff	• Desk review • Interviews with project staff
• To what extent is the project leveraging additional resources?	• Amount of resources leveraged relative to project budget	• Project documents • Project staff	• Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
			• Interviews with project staff
Evaluation Criteria: Effectiveness			
• Are the project objectives likely to be met? To what extent are they likely to be met?	• Level of progress toward project indicator targets relative to expected level at current point of implementation	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• What are the key factors contributing to project success or underachievement?	• Level of documentation of and preparation for project risks, assumptions and impact drivers	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• What are the key risks and barriers that remain to achieve the project objective and generate Global Environmental Benefits?	• Presence, assessment of, and preparation for expected risks, assumptions and impact drivers	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Are the key assumptions and impact drivers relevant to the achievement of Global Environmental Benefits likely to be met?	• Actions undertaken to address key assumptions and target impact drivers	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
Evaluation Criteria: Results			
• Have the planned outputs been produced? Have they contributed to the project outcomes and objectives?	• Level of project implementation progress relative to expected level at current stage of implementation • Existence of logical linkages between project outputs and outcomes/impacts	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Are the anticipated outcomes likely to be achieved? Are the outcomes likely to contribute to the achievement of the project objective?	• Existence of logical linkages between project outcomes and impacts	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Are impact level results likely to be achieved? Are the likely to be at the scale sufficient to be considered Global Environmental Benefits?	• Environmental indicators • Level of progress through the project's Theory of Change	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
Evaluation Criteria: Sustainability			
• To what extent are project results likely to be dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends?	• Financial requirements for maintenance of project benefits • Level of expected financial resources available to support maintenance of project benefits • Potential for additional financial resources to support maintenance of project benefits	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Do relevant stakeholders have or are likely to achieve an adequate level of "ownership" of results, to have the interest in ensuring that project benefits are maintained?	• Level of initiative and engagement of relevant stakeholders in project activities and results	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Do relevant stakeholders have the necessary technical capacity to ensure that project benefits are maintained?	• Level of technical capacity of relevant stakeholders relative to level required to sustain project benefits	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• To what extent are the project results dependent on socio-political factors?	• Existence of socio-political risks to project benefits	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• To what extent are the project results dependent on issues relating to institutional frameworks and governance?	• Existence of institutional and governance risks to project benefits	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
• Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits?	• Existence of environmental risks to project benefits	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review
Cross-cutting and UNDP Mainstreaming Issues			
• Did the project take incorporate gender mainstreaming or equality, as relevant?	• Level of appropriate engagement and attention to gender-relevant aspects of the project	• Project documents • Project staff • Project stakeholders	• Field visit interviews • Desk review

D. Annex 4: Interview Guide

Terminal Evaluation Draft Interview Guide

Overview: The questions under each topic area are intended to assist in focusing discussion to ensure consistent topic coverage and to structure data collection, and are not intended as verbatim questions to be posed to interviewees. When using the interview guide, the interviewer should be sure to target questions at a level appropriate to the interviewee. The interview guide is one of multiple tools for gathering evaluative evidence, to complement evidence collected through document reviews and other data collection methods; in other words, the interview guide does not cover all evaluative questions relevant to the evaluation.

Key
Bold = GEF Evaluation Criteria
Italic = GEF Operational Principles

I. PLANNING / PRE-IMPLEMENTATION

A. **Relevance**
   i. Did the project's objectives fit within the priorities of the local government and local communities?
   ii. Did the project's objectives fit within national priorities?
   iii. Did the project's objectives fit GEF strategic priorities?
   iv. Did the project's objectives support implementation of the relevant multi-lateral environmental agreement?

B. Incremental cost
   i. Did the project create environmental benefits that would not have otherwise taken place?
   ii. Does the project area represent an example of a globally significant environmental resource?

C. Country-drivenness / Participation
   i. How did the project concept originate?
   ii. How did the project stakeholders contribute to the project development?
   iii. Do local and national government stakeholders support the objectives of the project?
   iv. Do the local communities support the objectives of the project?
   v. Are the project objectives in conflict with any national level policies?

D. Monitoring and Evaluation Plan / Design *(M&E)*
   i. Were monitoring and reporting roles clearly defined?
   ii. Was there either an environmental or socio-economic baseline of data collected before the project began?

II. MANAGEMENT / OVERSIGHT

A. Project management
   i. What were the implementation arrangements?
   ii. Was the management effective?
   iii. Were workplans prepared as required to achieve the anticipated outputs on the required timeframes?
   iv. Did the project develop and leverage the necessary and appropriate partnerships with direct and tangential stakeholders?
   v. Were there any particular challenges with the management process?
   vi. If there was a steering or oversight body, did it meet as planned and provide the anticipated input and support to project management?
   vii. Were risks adequately assessed during implementation?
   viii. Did assumptions made during project design hold true?
   ix. Were assessed risks adequately dealt with?
   x. Was the level of communication and support from the implementing agency adequate and appropriate?

B. Flexibility
   i. Did the project have to undertake any adaptive management measures based on feedback received from the M&E process?
   ii. Were there other ways in which the project demonstrated flexibility?
   iii. Were there any challenges faced in this area?

C. **Efficiency** *(cost-effectiveness)*
   i. Was the project cost-effective?
   ii. Were expenditures in line with international standards and norms?
   iii. Was the project implementation delayed?
   iv. If so, did that affect cost-effectiveness?
   v. What was the contribution of cash and in-kind co-financing to project implementation?
   vi. To what extent did the project leverage additional resources?

D. Financial Management
   i. Was the project financing (from the GEF and other partners) at the level foreseen in the project document?
   ii. Where there any problems with disbursements between implementing and executing agencies?
   iii. Were financial audits conducted with the regularity and rigor required by the implementing agency?
   iv. Was financial reporting regularly completed at the required standards and level of detail?
   v. Did the project face any particular financial challenges such as unforeseen tax liabilities, management costs, or currency devaluation?

E. Co-financing *(catalytic role)*
   i. Was the in-kind co-financing received at the level anticipated in the project document?

ii. Was the cash co-financing received at the level anticipated in the project document?
iii. Did the project receive any additional unanticipated cash support after approval?
iv. Did the project receive any additional unanticipated in-kind support after approval?

F. Monitoring and Evaluation *(M&E)*
   i. Project implementation M&E
      a. Was the M&E plan adequate and implemented sufficiently to allow the project to recognize and address challenges?
      b. Were any unplanned M&E measures undertaken to meet unforeseen shortcomings?
      c. Was there a mid-term evaluation?
      d. How were project reporting and monitoring tools used to support adaptive management?
   ii. Environmental and socio-economic monitoring
      a. Did the project implement a monitoring system, or leverage a system already in place, for environmental monitoring?
      b. What are the environmental or socio-economic monitoring mechanisms?
      c. Have any community-based monitoring mechanisms been used?
      d. Is there a long-term M&E component to track environmental changes?
      e. If so, what provisions have been made to ensure this is carried out?

E. Full disclosure
   i. Did the project meet this requirement?
   ii. Did the project face any challenges in this area?

III. ACTIVITIES / IMPLEMENTATION

A. **Effectiveness**
   i. How have the stated project objectives been met?
   ii. To what extent have the project objectives been met?
   iii. What were the key factors that contributed to project success or underachievement?
   iv. Can positive key factors be replicated in other situations, and could negative key factors have been anticipated?

B. Stakeholder involvement and public awareness *(participation)*
   i. What were the achievements in this area?
   ii. What were the challenges in this area?
   iii. How did stakeholder involvement and public awareness contribute to the achievement of project objectives?

IV. RESULTS

A. Outputs

i. Did the project achieve the planned outputs?
ii. Did the outputs contribute to the project outcomes and objectives?

B. Outcomes
   i. Were the anticipated outcomes achieved?
   ii. Were the outcomes relevant to the planned project impacts?

C. Impacts
   i. Was there a logical flow of inputs and activities to outputs, from outputs to outcomes, and then to impacts?
   ii. Did the project achieve its anticipated/planned impacts?
   iii. Why or why not?
   iv. If impacts were achieved, were they at a scale sufficient to be considered Global Environmental Benefits?
   v. If impacts or Global Environmental Benefits have not yet been achieved, are the conditions (enabling environment) in place so that they are likely to eventually be achieved?

D. Replication strategy, and documented replication or scaling-up *(catalytic role)*
   i. Did the project have a replication plan?
   ii. Was the replication plan "passive" or "active"?
   iii. Is there evidence that replication or scaling-up occurred within the country?
   iv. Did replication or scaling-up occur in other countries?

V. LESSONS LEARNED

A. What were the key lessons learned in each project stage?
B. In retrospect, would the project participants have done anything differently?

VI. SUSTAINABILITY

A. Financial
   i. To what extent are the project results dependent on continued financial support?
   ii. What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends?
   iii. Was the project successful in identifying and leveraging co-financing?
   iv. What are the key financial risks to sustainability?

B. Socio-Political
   i. To what extent are the project results dependent on socio-political factors?
   ii. What is the likelihood that the level of stakeholder ownership will allow for the project results to be sustained?
   iii. Is there sufficient public/stakeholder awareness in support of the long-term objectives of the project?
   iv. What are the key socio-political risks to sustainability?

C. Institutions and Governance
   i. To what extent are the project results dependent on issues relating to institutional frameworks and governance?

ii. What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for the project results to be sustained?
iii. Are the required systems for accountability and transparency and the required technical know-how in place?
iv. What are the key institutional and governance risks to sustainability?

D. Ecological
i. Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits?

E. Annex 5: Rating Scales

Progress towards results: use the following rating scale	
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (S)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
Moderately Unsatisfactory (MU)	Project is expected to achieve its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.
Adaptive management AND Management Arrangements: use the following rating scale	
Highly Satisfactory (HS)	The project has no shortcomings and can be presented as "good practice".
Satisfactory (S)	The project has minor shortcomings.
Moderately Satisfactory (S)	The project has moderate shortcomings.
Moderately Unsatisfactory (MU)	The project has significant shortcomings.
Unsatisfactory (U)	The project has major shortcomings.
Highly Unsatisfactory (HU)	The project has severe shortcomings.
Sustainability: use the following rating scale	
Likely (L)	There are no or negligible risks that affect this dimension of sustainability/linkages
Moderately Likely (ML)	There are moderate risks that affect this dimension of sustainability/linkages
Moderately Unlikely (MU)	There are significant risks that affect this dimension of sustainability/linkages
Unlikely (U)	There are severe risks that affect this dimension of sustainability
Impact	
Significant (S)	By project completion project directly contributed to scientifically documented large scale impacts.
Minimal (M)	By project completion project directly contributed to anecdotal and/or relatively small site-specific impacts.
Negligible (N)	By project completion project no direct contribution of project to impacts.

F. Annex 6: Key Informants Interviewed

Full name	Organization	Title	Relationship to project
Tamer Otrakçier		Forest Engineer	Individual Consultant
Alper Tolga Arslan	GDF	Deputy Department Chief	Strategy Development
Ramazan Balı	GDF	Division Director	Project Coordinator
Kıymet Keleş	GDF	Engineer	Project Coordination
Akın Mızraklı	GDF-Antalya	Forest Management Planning Chief Engineer	Integrated Forest Management Plans
Davut Atar	GDF	Forest Engineer	SEFM
Tamer Ertürk	GDF	Division Director	Forest Management Planning
İlhami Aydın	GDF	Deputy Department Chief	Forest Fire Management
Akın Emin	GDF	Division Director	Pest Control
Mehmet Çelik	GDF	Assistant Director General of GDF	Former Regional Director of Muğla
Hayati Özgür	GDF	Assistant Director General of GDF	Former Det. Chief of Forest Administration and Planning
Uğur Zeydanlı	DKM	Director General of DKM	Project Partner
Yıldıray Lise	DKM	Assistant Director General of DKM	Project Partner
Melike Hemmami	Project Consultant	National Consultant, Ecotourism and NWFPs	Köyceğiz Eco-tourism micro project/ Forestry SDG mapping Report
Luke Rogers	University of Washington	International Technical Expert	FEMS Decision Support System
Zack Parisa	Silvia Terra	International Technical Expert	Remote Sensing Inventory
Chad Oliver	Yale University	International Technical Expert	Technical Advisor

G. Annex 7: Documents Reviewed

Project-related Documents

- Project Information Form (PIF)
- GEF CEO Endorsement Request
- GEF Secretariat Review Sheet
- GEF CEO Endorsement Letter
- UNDP Project Document
- UNDP Turkey website project summary
- GEF Online Project Information Management Systems Summary (Project ID# 4469)
- Project Inception Report
- Annual Project Report (APR)
- Project Implementation Report (PIR) for 2015, 2016, 2017, 2018, 2019
- Summary of gender aspects of the project
- Mid-term Review Report and Inception Report
- Annual budget revisions (Excel files) for 2018, 2019, 2020
- Combined Delivery Reports (financial report) (2013, 2014, 2015, 2016, 2017, 2018, 2019)
- Annual audit reports for 2015, 2016, 2017, 2018
- Multi-year Annual Workplan
- Semi-annual and Annual progress reports and work plans
- Project Steering Committee Meeting Minutes 2015-2019
- Mediterranean Forest Week Results Summary (2019)
- Project media files and communication outputs
- Project technical report outputs, including training program
- Project GEF Tracking Tools for biodiversity, climate change, and sustainable forest management

General Directorate of Forestry, Criteria and Indicators of Sustainable Forest Management, Implementation Guide (December 2019)

Project Summary Booklet (2017)

Non-Wood Forest Products Carob Value Chain Analysis Research Report (2018)

Non-Wood Forest Products Daphne Value Chain Analysis Research Report (2018)

Non-Wood Forest Products Thyme Value Chain Analysis Research Report (2018)

Integrating Biodiversity into Forestry Planner's Guide (2020)

Integrating Biodiversity into Forestry Practitioner's Guide (2020)

Sivasti Forest Enterprise Sub-District Directorate, Ecosystem Based Functional Forest Management Plan

Socio-Economic Structure of The Forest Villages: Perceptions, Needs, Opportunities and Strategies Research Report 2018

Turkey National Biodiversity Action Plan 2018-2028

Turkey 1st and 2nd National Communications to the UNFCCC

H. Annex 8: Turkey SFM Project Financial Tables

Note: *All figures in United States dollars.*

ORIGINAL BUDGET (Prodoc Total Budget & Workplan)	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Component 1	288,155	193,105	134,580	85,580	78,580	-	-	-	780,000
Component 2	1,090,940	885,880	1,023,340	545,290	428,820	-	-	-	3,974,270
Component 3	549,880	428,050	442,800	253,000	92,000	-	-	-	1,765,730
Project Management	126,230	123,830	116,430	117,180	116,330	-	-	-	600,000
Total	2,055,205	1,630,865	1,717,150	1,001,050	715,730	-	-	-	7,120,000
ACTUAL EXPENDITURE (Multi-year Annual Work Plan)	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Component 1	145,398	102,417	90,665	182,454	77,289	35,217	27,474	88,688	749,602
Component 2	6,589	50,249	1,197,793	896,300	781,287	698,367	218,481	134,048	3,983,114
Component 3	15,786	100,578	428,863	362,045	396,731	237,530	230,547	15,205	1,787,285
Project Management	48,266	70,981	103,656	105,478	79,924	73,021	61,000	57,674	600,000
Total	216,039	324,225	1,820,977	1,546,276	1,335,231	1,044,135	537,502	295,615	7,120,000

Actual Delivery vs Original PRODOC Budget	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Component 1	50.46%	53.04%	67.37%	213.20%	98.36%	#DIV/0!	#DIV/0!	N/A	96.10%
Component 2	0.60%	5.67%	117.05%	164.37%	182.19%	#DIV/0!	#DIV/0!	N/A	100.22%
Component 3	2.87%	23.50%	96.85%	143.10%	431.23%	#DIV/0!	#DIV/0!	N/A	101.22%
Project Management	38.24%	57.32%	89.03%	90.01%	68.70%	#DIV/0!	#DIV/0!	N/A	100.00%
Total	**10.51%**	**19.88%**	**106.05%**	**154.47%**	**186.56%**	**#DIV/0!**	**#DIV/0!**	**N/A**	**100.00%**
Planned VS Actual By Component			**Planned**	**Actual**					
Component 1			$780,000	$749,602					
Component 2			$3,974,270	$3,983,114					
Component 3			$1,765,730	$1,787,285					
Project Management			$600,000	$600,000					
Total			$7,120,000	$7,120,000					

I. Annex 9: Turkey SFM Project Results Framework Assessed Level of Indicator Target Achievement

Results Framework Assessment Key

Green = Achieved / Exceeded	*Yellow = Partially Achieved*	*Red = Not achieved*	*Gray = Not applicable*

Objective
To promote an integrated approach to management of forests in Turkey, demonstrating multiple environmental benefits in high conservation value forests in the Mediterranean forest region

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
Area of forest landscapes in Turkey with integrated forest- plans developed and under implementation that deliver multiple environmental benefits (biodiversity, climate change), ha.	0	0.45 mln ha	The project's EoP target, which is 0.45 mln ha with integrated forest management plans developed and under implementation, has already been achieved in the previous reporting period. Total area of forest with integrated management plans with multiple environmental benefits at landscape level is 638,923 ha, composed of 28 plans in 5 pilot sites. To strengthen implementation of 28 integrated forest management plans in 5 pilot sites, the Project conducted training workshops for forest chiefs in Alanya, Turkey, during 19-23 November 2018, attended by 36 participants, mainly forest chiefs and division directors of regional directorates from 5 pilot sites. Moreover, the Project held trainings for forest planning engineers at GDF and the private sector on the principles of making integrated forest management plans on 4-6 December 2018 in Antalya, Turkey, attended by 100 participants, as an initial dissemination process to be followed by the GDF.	*Exceeded. Concur with self-assessment.*
Outcome 1 Policy and institutional framework for integrated forest management within landscape				
LULUCF Unit	No properly capacitated LULUCF Unit in the Government	One adequately staffed and funded LULUCF unit with technical capacities to	The LULUCF unit with adequate staff and funding operates successfully within GDF since its establishment in 2015 (please refer to previous PIRs for details). The end of project target has been achieved. All the training and other activities were completed successfully under this indicator. The LULUCF unit with adequate staff which was established with project support, has been assured	*Achieved. The LULUCF unit was established and is operating within GDF. A variety of training and capacity development*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	***Terminal Evaluation Assessment***
		drive forest carbon efforts forward in the country	its sustainability through new national and international projects focusing on carbon pools at forestry sector.	*activities were carried out. Through the project's support the GDF decided to adopt the Canadian Carbon Budget Modeling for tracking, assessing and managing carbon flows in Turkey's forests. A training was conducted on the CBD methodology in July 2017, and a plan for adoption of CBM in Turkey by the GDF was formulated, but this has not yet been funded and implemented. The LULUCF unit works on other aspects of carbon management and reporting, building on the MRV work carried out under the project.*
Forest protected area regulatory framework	No legal framework defining forest PA expansion and integration within broader landscape	Effective regulatory framework enables GDF to establish forest PAs based on combined SFM	The Sustainability Working Group was established during this reporting period, which composed of 14 officials from 7 different departments of GDF to cover all outputs of the project, rather than focusing only on forest PA related legal framework. Main role of the WG is officially identified as reviewing current regulatory framework, identifying the gaps, drafting regulatory changes to ensure sustainability of the new approaches and models to be	*Achieved. Concur with self-assessment. The below text describes the role of the Sustainability Working Group in the process of*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
		criteria, including biodiversity and carbon	included in the GDF's business as usual. The approaches and models include; integrated forest management planning (biodiversity zoning, forest fire planning, pest control, carbon focused silviculture, non-wood forest products, eco-tourism, protected forest areas), decision support system with MRV approach, in-service education curriculum. The project has successfully established the baseline system for identification and declaration of PAs within forest areas. Thanks to the project, biodiversity zoning is an increment for the forest management planning process compare to the business as usual. In addition to the biodiversity zoning, a roadmap for regulatory change is prepared during this reporting period. However, official declaration of PAs based on the identified zones still needs to be cleared and approved by the GDF. The Sustainability Working Group is aiming to coordinate review and approval of technical and regulatory studies among the GDF decision makers. The project team will follow up on this issue with the Sustainability Working Group to be finalized before the end of the project. Current legislation covering the above mentioned thematic areas will be reviewed by the Group members and a comprehensive report on legislation, sustainability and replication will also prepared by the same Group till the end of 2019. After the report is submitted, the Working group will oversee implementation of the approved report upon project closure ensuring sustainability of the project's results.	*establishing an effective regulatory framework for forest PAs. On the one hand, strictly speaking the project has not yet completed an established regulatory framework for forest PAs, but on the other hand the project has generated multiple results that will have an even greater net positive benefit for ecologically sensitive areas within the forest landscape. As explained in the 2018 PIR, "It was decided to establish a working group / committee within GDF specific to the [PAs] issue that can include experts and decision makers from relevant departments to come up with an official forward plan. This idea was presented to the General Director [of*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	***Terminal Evaluation Assessment***
				the GDF] for implementation purposes. He has concluded that this approach is feasible, and also same approach can be adopted for other key issues. Therefore, it was decided to establish a general Sustainability Commission with GDF members, who then can organize sub-working group meetings to come up with conclusions, and suggestions including regulatory revisions."
MRV for forest-based mitigation and sequestration	No MRV	One MRV for forest-based mitigation and sequestration in Turkey is developed, with initial emphasis on Mediterranean region.	As a follow up to the MRV process, the Ministry of Agriculture and Forestry has completed the revision of Turkish SFM Criteria/ Indicator set along with the updated European SFM set. The project Implementation Unit supported these efforts as this work overlaps with the project goals and priorities. Two consultants were hired to lead the process in Turkey. Six (6) working groups were established and more than 15 working group meetings were organized to work on six different criteria with the participation of more than 150 participants all over the country. Findings of the working groups were presented, and a national workshop was organized in the last quarter of 2018 to a wider audience by the project. The final version of SFM criteria indicator set was shared with relevant authorities for final comments and suggestions. As soon as the final version will be approved by all of the parties, the	*Exceeded. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			national guide on revised SFM C/I will be published till the end of 2019. Additionally, the Project team has decided to undertake a study on mapping linkages between the Turkish Forestry Sector impact area and the Sustainable Development Goals. The working group consisting of UNDP, key experts and NGOs in Turkey , which was created in 2018 to undertake the task, continued to organize meetings during this reporting period and identified key relations between the forestry sector and SDGs, and prepared a set of indicators guided by the MRV report. The draft outcome document prepared as a discussion paper was circulated to the relevant parties during this reporting period for comments and feedback. The paper also describes linkages between SFM C/I that were revised during 2018. The draft document was translated to English and the English version of the report will be disseminated among the international community for comments. The report will be finalized upon receiving comments from the stakeholders before the end of 2019.	
[Modified indicator as per MTR]: Establish a decision support system to include LULUCF database as well as biodiversity and social benefits [Original indicator]: Forest sector Nationally Appropriate Mitigation Action (NAMA)	No NAMA	[Modified target as per MTR]: A decision support system for forest management established [Original target]: One fully developed NAMA covering 2-4 million ha Mediterranean-region forests	In line with the Paris agreement and the guidance of the Ministry of Environment and Urbanization, and the focal point for UNFCCC in Turkey, it was decided to focus on LULUCF sector Nationally Determined Contributions (NDC) with a stronger MRV system. NAMA preparation task has been replaced with preparation of MRV and reporting of LULUCF sector within NDC as per Project Board decision (February 2015). During the last Steering Committee Meeting held in May 2019, it was agreed that the relevant indicator of Output 1.5 in the Results Framework of the Project (National Mitigation Action in the Forestry Sector) should be changed as (Establishing the online decision support system for GDF) as suggested in the Mid-term Evaluation Review. A program for the Decision Support System was finalized and submitted to GDF on April 2019. GDF has decided to name the	*Exceeded. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			system as "Forest Management System" (Orman Yönetim Sistemi in Turkish). Trainings on the program for users were organized in the first quarter of 2019 in Turkey and at the Yale University, USA. Currently the program has been established at the GDF servers and is operational. The program is being used by the GDF staff at the moment. During the rest of 2019 several activities will be held to introduce the system to wider audience in the GDF, academia and among other relevant stakeholders. GDF carried out a new inventory work in Kokez (in Bolu Province) for management planning, and the inventory teams has collected data compatible with the DSS requirements in the first quarter of 2019. These new sets of data were also used in trials of DSS during the development process.	
Outcome 2 Implementation of forest-based GHG mitigation and carbon sequestration tools within landscape				
Fire management and carbon losses from fires	Suppression-focused fire management system; annual carbon losses at five pilot sites average 3,629 tCO2/y	Proactive (prevention and load management focussed) fire management methods at pilot sites generate carbon benefits of 1,646 tCO2/y over baseline.	Meteorological early warning system and forest fire early warning system were established and made operational at national scale in early 2018. The system has also been integrated into the ORBİS system (Forest Information System of the GDF). Fire Management Plans for Gülnar,Gazipaşa,Köyceğiz, Andırın and Pos Forest District Directorates were prepared and integrated into 28 forest management plans. Training materials for GDF staff were integrated into GDF's online training system. Training modules at International Training Center of Antalya used to be working as off-line system, they are now integrated into online training system. Forest Fire Simulator, a sound software for the training of the fire fighters, was developed for Antalya International Training Center by HAVELSAN company with the funding from the Project.	*Exceeded. Concur with self-assessment. The project's results in relation to fire management and prevention have exceeded expectations on multiple fronts.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			The integrated fire management plans have been prepared for all pilot sites; meteorological early warning software has been established and is operational. In regard to fire prevention trainings in the villages as the project's remaining under this indicator, target groups for each village were identified and a comprehensive training program was designed. The trainings were held in the pre-selected 10 villages in each pilot site (50 villages in total) between October - December 2018. Training activities targeted primary students in the schools and villagers separately. The events had a strong voice in the local media as well as in the UNDP social media.	
Silvicultural methods consider carbon and biodiversity aspects. Assessment of associated carbon benefits.	Carbon benefits not taken into account or measured; locations not chosen to maximize connectivity enhancements.	Silvicultural approaches at pilot sites generate carbon benefits of 11,572 tCO2/y along with enhanced connectivity.	Total area covered by carbon-focused silvicultural activities has increased to 9,339 ha as of June 2019 and the target of 9,200 ha has been achieved and even exceeded. The activities undertaken include regeneration thinning, artificial regeneration tending, initial thinning, conversion of coppices into high forests (6,891 ha out of targeted 5,000 ha), industrial plantation (994 ha out of targeted 1,200 ha) and rehabilitation (1,454 ha out of targeted 3,000 ha). The silvicultural activities covering 9,200 ha that were supported by the Project are expected to generate 11,572 tCO2/y. Carbon measurements from 41 pilot plots were analyzed by the Forest, Soil and Ecology Research Institute Directorate in Eskisehir province. The results were received later than planned and therefore the report on carbon calculations was finalized only in June 2019. Detailed estimates of generated carbon benefits this will be available by the final evaluation and reflected in the project's updated Climate Change Tracking Tool. GDF decided to cancel the trainings on carbon focused silvicultural activities initially planned for 2017 and then moved to 2018 since the project already provided numerous trainings for forestry staff in 5 pilot project sites as well as for some central staff of GDF.	*Achieved. Concur with self-assessment*.

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			Related Research Directorates have started producing high quality seedlings through controlled pollination from the elite trees, thanks to the training program provided by the project on controlled pollination. The GDF is planning to disseminate this training to all Research Directorates through their capacity.	
Fuel wood removals and associated carbon fluxes.	High levels of legal and illegal fuel wood removals for household consumption, especially home heating, with resulting annual carbon losses at five pilot sites averaging 18,775 tCO2/y. No alterative system to replace fire wood consumption in place.	Expansion of micro-credit program into Mediterranean region generates carbon benefits of 13,038 tCO2/y over baseline	1,301 micro-credits (vs the EoP target of 1,100) were disbursed to the villagers in five pilot sites. Project target was achieved and even exceeded. Carbon benefits generated by the micro-credit program will be calculated during the project's final evaluation and are expected to be in the range of 13,200 tCO2/y (yet to be confirmed by the terminal CC TT). The project undertook a series of activities aiming at generating sufficient data to clarify what type of activities could be supported in order to strengthen site level partnerships for NWFP and ecotourism activities. The outputs of these are; -Laurel value chain analysis -Carob value chain analysis -Thyme value chain analysis -Socio-economic analysis of forest villages with gender responsive approach -Meetings with relevant departments of the General Directorate of Forestry (GDF) – central and local level. -Series of workshops on ecotourism to explore potential project ideas to be supported. The outcome of these reports, meetings and activities uncovered the fact that there isn't yet sufficient capacity at local level to develop and implement a grant project, although there is an important potential on bringing different stakeholders together around specific topics. Moreover, after a series of meetings with the RTA, UNDP CO management, and the GDF about potential models to be used, it was clear that the best and time efficient model to be adopted is to implement the grants directly through the partnership of UNDP and GDF.	*Exceeded. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			The grant management modality was therefore revised to UN's Harmonised Approach to Cash Transfer (HACT) as a Direct UNDP Procurement. This will mean that, the procurement will be done by the GDF in line with Turkish Government procurement rules, and payment will be done by UNDP, a method commonly used for UNDP projects including GEF funded ones. The framework for enhancing ecotourism activities in Köyceğiz has been prepared by collecting the ideas of various stakeholders at local level and has been prioritised with the feedback of the relevant department of GDF. These outputs are transformed to several project proposals to be implemented in partnership with UNDP and the GDF. The content of projects has a strong focus on facilitating the building of partnerships at local level while also aiming at building capacities. The first project proposal was implemented in Koycegiz FED with the participation of 16 local villagers on rural business initiative. Other project proposals are; -Study visits to the best ecotourism sample sites, -Köyceğiz tourism destination plan, -Workshop for all related partners on ecotourism for local partnerships, -Open air museum for Liquidambar, -Tourism products inventory, -Information and awareness posts, -workshop for decision makers, -Workshop on ecotourism planning for GDF staff. The same process is yet to be implemented to explore the project ideas opportunities for laurel collectors in Andırın in order to strengthen their position along the laurel value chain through partnerships.	

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			The implementation of all project proposals on eco-tourism in Koycegiz FED, and on non-wood forest products in Andirin FED will be implemented until the end of 2019.	
Integrated pest management (IPM) and associated carbon fluxes	No proactive IPM, resulting annual carbon losses at five pilot sites averaging 45,286 tCO2/y.	Introduction of IPM methods and establishment of two pest centres generates carbon benefits of 30,191 tCO2/y over baseline.	Pest risky areas were assessed and mapped based on records of pests in last decade in 5 pilot project sites (Köyceğiz, Andırın, Pos, Gazipaşa and Gülnar) during this reporting period. Prescriptions based on the pest risk maps and assessment were prepared and integrated into forest management plans in order to minimize the pest harms and to conduct more effective control activities. A methodology and system for carbon calculations were developed in the first quarter of 2019. The system is fully in line with the latest scientific studies and updated scientific developments. Pre-study on the technical specifications and the needs for early warning system was conducted. A report summarizing best practices on the use of the early warning system around the world along with key findings was prepared and submitted to the high level authorities of GDF. Assigning etymology experts by GDF for the labs (pest centers) is still pending. This is mostly due to the economic and personnel assignment situation in the country that is affecting personal cost deductions in public sector. However, the related personnel hiring issue is in the plan of GDF. During the last Steering Committee meeting held in May 2019, it has been decided to submit to the decision makers of GDF the request for personnel needed for proper functioning of pest laboratories (in Antalya and Mersin) during 2019. The project team follows this issue closely with the decision makers of the GDF. Regarding the generated carbon benefits, estimates will be available by the final evaluation. Given the fact that a methodology for estimating pest related carbon benefits quite differs from	*Partially achieved. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			estimating other carbon benefits, the Project hired an expert to define the methodology to be used for final calculations.	
Carbon protocols designed and completed before, during and after implementation of enhancement and mitigation efforts	No carbon protocol	Introduction of carbon protocols in line with MRV system (Output 1.3) enabling integration of climate change into forest management plans through a central LULUCF Database under Forest Information System (FIS) Project of GDF.	As part of MRV process, carbon protocols were finalized, tested and integrated into inventory cards of GDF. Moreover, carbon protocols were integrated into forest management planning process. In addition, the project has developed and operationalized the Decision support system for forest management. Please refer to Indicator 4 under Outcome 1 on the Decision Support System for latest developments. As reported in 2018, the project team has contracted Silvia Terra for forest inventories with the support of satellite images through their own cruise boost. During the first stage the testing on Alara was successfully implemented. Then it was decided to run the Silvia Terra system in Kökez, where there are more tree species and the forest stand dynamics are more complex. Silvia Terra has successfully completed the study for the Kökez area and reported back to UNDP and GDF. GDF is currently assessing the results and how they can best benefit from the new inventory approaches.	*Achieved. Concur with self-assessment.*
Outcome 3 Strengthening protection of high conservation value forests in Mediterranean landscape				
Extent of forest PAs	Mediterranean forest habitats are under-represented in national PA system	Effective protection extended to 79,960 ha, including under-represented Mediterranean forest habitats.	The target of 79,960 ha for this Indicator has been achieved and even exceeded extending protection to 130,346 ha. This was achieved through i) definition of the biodiversity mainstreaming methodology and tools, ii) first implementation in Gülnar FED, iii) Extension of the methodology to other FEDs, iv) preparation of recipes for species of concern targeting the forest chiefs through annexes in the forest management plans, v) and ensuring the successful implementation through extension activities targeting the forest chiefs and managers. During the second part of the year, several guidelines will be published regarding implementation of biodiversity actions in the forests, practitioner's guide, how to prepare management plans	*Exceeded. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
			with integrated approach, several other biodiversity related documents, poster, brochure and others.	
PA management effectiveness: METT Score	Aladağlar National Parks - 35 METT Score Kartal Lake Nature Reserve - 21 METT score	Aladağlar National Parks - 40 METT Score Kartal Lake Nature Reserve - 40 METT score	Updated METT scores for Kartal Lake Nature Reserve and Aladağlar National Park will be prepared and reported before the Terminal Evaluation of the project. METT score of the Aladağlar National Parks has surpassed target (50 vs. 40). Confirmed by the MTR. METT score of the Kartal Lake Nature Reserve has increased but still under target (31 vs. 40). It is unlikely to reach 40 by the end of project as it is a strict nature reserve and there are only protection and limited monitoring activities on the ground.	*Achieved. Concur with self-assessment.*
[Modified indicator]: Improvement in target biodiversity species at pilot sites [Original indicator]: Improvement in biodiversity indicator species at pilot sites	See baseline values for pilot sites in table below	[Modified target as per MTR]: 'Minimum habitat size' for viable population is under protection [Original target] See target values for pilot sites in table below	During the last Steering Committee meeting held in May 2019, a decision has been made to change the indicator for Output 3.3 from “Improvement in biodiversity indicator species at pilot sites”) to "Improvement in target species at pilot sites” along with modified target “Protection of minimum area of suitable habitat for viable population" as proposed by the Mid-Term Review. The project team with the support of the project partner “Nature Conservation Centre”, will work on assessing the indicator’s progress and calculating the habitat suitability for the species. The final figures and level of achievement will be reflected to the Final Evaluation report of the project.	*Achieved. Concur with self-assessment.*
Carbon benefits from forest Pas	Areas are subject to regular logging according to management plans, carbon pools diminishing.	Net carbon benefit associated with new conservation areas estimated at	Cumulative net carbon benefit associated with conservation areas of 5 pilot sites is estimated at 207,315 tCO2e as of 2019. EoP target exceeded. Net carbon benefit associated with protected areas (Core zone+buffer zone+transition zone) in Gulnar FED is calculated at	*Exceeded. Concur with self-assessment.*

Description of Indicator	Baseline Level	End of project target level	Project Self-assessment (2019 PIR)	*Terminal Evaluation Assessment*
		64,245 t CO2e/year.	68,759 tCO2e for four years since the approval of management plan in 2016. Net carbon benefit associated with protected areas in Gazipaşa FED is calculated at 63,180 tCO2e for three years since the approval of management plan in 2017. Net carbon benefit associated with protected areas in 3 other FEDs is calculated at 75,376 tCO2e for two years since the approval of management plans in 2018.	

Annex 10. TE Report Clearance Form

Terminal Evaluation Report for *(Integrated approach to management of forests, with demonstration in high conservation value forests in the Mediterranean region & UNDP PIMS 4434*)

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