GEF Country Portfolio Evaluation: Syria (1994–2008)

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1818 H Street, NW
Washington, DC 20433
Internet: **www.gefeo.org**
Email: **gefevaluation@thegef.org**

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Credits
Director of the GEF Evaluation Office: Robert D. van den Berg
Evaluation Team Leaders: Claudio Volonté, Chief Evaluation Officer, and Anna Viggh, Evaluation Officer, GEF Evaluation Office
Evaluation Team: Mohamad Kayyal, EcoConServ Environmental Solutions; and Timothy Ranja, GEF Evaluation Office

Editing and design: Nita Congress
Cover photo: Lake of Balloran Dam, Lattakia Province, Syria, Anna Viggh, GEF Evaluation Office

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Foreword

This evaluation was one of two country portfolio evaluations in 2009 examining Global Environment Facility (GEF) support in the Middle East. Syria was selected for review because it is eligible for an individual country allocation under the Resource Allocation Framework in climate change and for a group allocation in biodiversity, and because its portfolio is diverse and includes projects in all the GEF focal areas. Syria has also benefited from the Small Grants Programme since 2006.

The evaluation found that GEF support in Syria has contributed to the formal protection of globally significant biodiversity and strengthened management systems. Projects introduced alternative livelihood practices which decrease threats to biodiversity including local community dependency on such resources as medicinal and aromatic plants. In the climate change area, it is difficult to quantify direct greenhouse gas emissions avoidance from GEF activities, but projects have introduced efficiency and maintenance management systems that have been replicated at several power generation plants. GEF support has also influenced national energy efficiency laws with potential long-lasting impacts. Results in the other focal areas have been limited to establishing the foundation for national and regional action plans, policy development, and enhancing capacity. Overall long-term sustainability of project results remains a challenge. Another finding of the evaluation is that Syria has limited access to GEF investment agencies, since the World Bank does not have a program in the country and Syria does not belong to any of the regional banks with direct GEF access.

The GEF Evaluation Office and the GEF focal point invited a wide range of stakeholders to discuss the findings of the evaluation on March 4, 2009 in Damascus. During the workshop, the context and methodology were presented as well as the preliminary findings and emerging recommendations. This was followed by small group discussions on select issues and a very fruitful open forum discussion jointly chaired by the Syrian GEF focal point and the GEF Chief Evaluation Officer. The feedback received was highly constructive, and comments have been incorporated into this report as appropriate.

The Syria evaluation was presented to the GEF Council in June 2009 together with the Annual Country Portfolio Evaluation Report 2009, a report that synthesizes the main conclusions and recommendations from three country portfolio evaluations: Cameroon, Egypt, and Syria. The GEF Council asked the GEF Secretariat to explore, within the GEF partnership, modalities to address the gap in available resources for combating land degradation to support key challenges facing countries such as Cameroon, Egypt, and Syria and to conduct a survey of countries that

are, like Syria, in the exceptional circumstance of having limited access to GEF partner international financial institutions.

The government of Syria has responded to the evaluation, and its response can be found in annex H of this report.

I would like to thank everyone for their very active and supportive participation in the process of conducting this evaluation. The Evaluation Office remains fully responsible for the content of the report.

Rob D. van den Berg
Director, GEF Evaluation Office

Acknowledgments

This report was prepared by a team led by Claudio Volonté, Chief Evaluation Officer, and Anna Viggh, an Evaluation Officer in the Evaluation Office of the Global Environment Facility (GEF). The team's lead consultant was Mohamad Kayyal, a subcontractor to the regional environmental company EcoConServ Environmental Solutions. Timothy Ranja, an Evaluation Analyst in the GEF Evaluation Office, served as research assistant.

Representatives of the Syrian General Commission for Environmental Affairs and Ministry of State for Environmental Affairs provided full cooperation and participated actively in the evaluation. The Evaluation Office is particularly thankful to them for their contribution to project information and data. The team is grateful for the field mission support provided by Abir Zeno of the UNDP Office, Syria, and for her assistance in meeting project stakeholders.

Abbreviations

CBD	Convention on Biological Diversity
CBO	community-based organization
CDM	Clean Development Mechanism
CEO	chief executive officer
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CO_2	carbon dioxide
CPE	country portfolio evaluation
FAO	Food and Agriculture Organization of the United Nations
FSP	full-size project
GCEA	General Commission for Environmental Affairs
GDP	gross domestic product
GEF	Global Environment Facility
GHG	greenhouse gas
GTZ	German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)
IA	Implementing Agency
IFAD	International Fund for Agricultural Development
INC	initial national communication
LS	Syrian pound
MAAR	Ministry of Agriculture and Agrarian Reform
MSEA	Ministry of State for Environmental Affairs
MSP	medium-size project
NCSA	national capacity self-assessment
NEAP	national environmental action plan
NGO	nongovernmental organization
NIP	national implementation plan
PCB	polychlorinated biphenyl
PDF	project development facility
PIF	project identification form
POP	persistent organic pollutant
RAF	Resource Allocation Framework
SGP	Small Grants Programme
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

All dollar amounts are U.S. dollars unless otherwise indicated.

1. Main Conclusions and Recommendations

1.1 Background

Syria has received support from the Global Environment Facility (GEF) through national, regional, and global projects since 1994. GEF funding in Syria is estimated at about $12.7 million for 10 national projects—5 in the biodiversity focal area, 2 in climate change, 2 in persistent organic pollutants (POPs), and 1 multifocal—in addition to national implementation of the GEF corporate Small Grants Programme (SGP). Biodiversity and climate change account for the largest shares of GEF support—40 and 44 percent of total GEF funding, respectively. POPs and multifocal area projects account for about 11 percent of GEF funding. There are no projects combating land degradation in the country. Syria has participated in one international waters project, a regional project along the Mediterranean coast. In all, Syria has participated in seven regional and six global projects supported by the GEF, half of which are in the biodiversity focal area.

Based on the overall purpose and terms of reference of the GEF country portfolio evaluations (CPEs), this evaluation of GEF support to Syria has the following objectives:

- Independently evaluate the **relevance and efficiency** of GEF support in a country from several points of view: national environmental frameworks and decision-making processes, the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures.
- Assess the **effectiveness and results** of completed and ongoing projects in each relevant focal area.
- Provide additional **evaluative evidence** to other evaluations conducted or sponsored by the GEF Evaluation Office, especially the Fourth Overall Performance Study.
- Provide **feedback and knowledge sharing** to (1) the GEF Council in its decision-making process to allocate resources and develop policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF support.

Syria was selected for evaluation through a stratified randomized selection that took into account all the countries in the region. Syria was considered a good choice for review because it is eligible for an individual allocation in the climate change area under the Resource Allocation Framework (RAF) and for a group allocation in biodiversity, and because it has a relatively small GEF portfolio compared to similar countries in the region.

An evaluation team consisting of staff of the GEF Evaluation Office and a lead consultant based in Syria, subcontracted by a regional environmental firm, conducted the Syria CPE between October 2008 and April 2009.

1.2 Conclusions

Results and Effectiveness

Conclusion 1: GEF support to biodiversity conservation in Syria has yielded some impacts, specifically contributing to the formal protection of globally significant biodiversity and strengthened management systems.

The GEF's two national projects in Syria in the biodiversity focal area supported improved management of protected areas and facilitated their expansion. At the impact level, biodiversity projects supported by the GEF introduced alternative livelihood practices, which decrease threats to biodiversity, including local community dependence on biodiversity resources such as medicinal and aromatic plants. These national projects have supported activities that have increased the number of migratory birds flying into protected areas. However, development of the financial instruments needed to sustain these improvements upon project completion presents challenges and requires additional institutional reforms (see conclusion 4). GEF support to biodiversity projects influenced the institutional set-up among Syrian government entities, notably by providing stronger coordination between the former Ministry of Local Administration and Environment—now the Ministry of State for Environmental Affairs (MSEA)—and the Ministry of Agriculture and Agrarian Reform (MAAR) that led to improved management practices of protected areas.[1]

The GEF regional project "Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent" was crucial in disseminating over 16 target varieties of wild relatives of fruit trees and native species, in addition to wild relatives and land races of wheat, barley, and legumes. The project promoted alternative land use practices through collaboration with farmers who started to rehabilitate these species. These practices are being replicated in other agricultural lands across the country. The project provided the resources needed for the establishment of a genetic resources unit in the General Commission for Agricultural Scientific Research and a herbarium for targeted species. These institutions are financially supported by the Syrian government.

A national enabling activity in the biodiversity focal area facilitated preparation of Syria's National Strategy and Action Plan on Biodiversity, creating a nationally owned strategic basis for setting policies for sound decision making and future investments in biodiversity protection. A global enabling activity supported strengthened national capacity to develop a regulatory biosafety framework for the import and export of living modified organisms.

GEF support in the biodiversity focal area has been quite successful in building capacity and raising awareness within targeted government institutions, in addition to academic and local communities. The projects have provided access to information on best practices and increased awareness by local populations of lessons and best practices on the importance of preserving biodiversity and protected areas. In particular, the SGP continues to present useful opportunities for local communities, households, and nongovernmental organizations (NGOs) to learn and replicate results regarding alternative livelihoods and new approaches to the sustainable use and management of biodiversity resources.

Conclusion 2: There are no data to estimate the direct impact on greenhouse gas emissions, but GEF support has influenced national energy efficiency laws with potential long-lasting impacts.

[1] The MSEA was created in 2009 to take over the environmental functions of the Ministry of Local Administration and Environment; throughout this report, "MSEA" is used to refer to both the present agency and its predecessors.

The "Supply-Side Efficiency and Energy Conservation and Planning" project established a target to reduce national energy consumption by 1.83 percent and carbon dioxide (CO_2) emissions by 765.5 tons by 2008. Although no data are available to support this result, the project did introduce efficiency management systems and maintenance management systems which have been replicated at several power generation plants around the country. The project also created the National Energy Research Centre, an institution within the Ministry of Electricity mandated with researching new alternative energy resources and energy efficiency initiatives; the center also has the capability of conducting energy audits. Under project auspices, two energy efficiency laws were prepared and recently enacted. The first of these sets efficiency standards for consumption of electrical energy in the domestic, service, and commercial sectors; the second involves energy conservation.

The SGP has contributed to greenhouse gas (GHG) reduction in Syria through biogas projects which offer good opportunities for communities and NGOs to learn and replicate results in this area.

Conclusion 3: Results in other focal areas are limited to establishing the foundation for national action plans and policies and developing national capacities.

In the **international waters area**, the regional project "Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea" brought the negative impacts of land-based sources of pollutants on the coastal zone and marine environment to policy makers' attention. As a result, the Syrian government adopted in 2008 the National Action Plan for Reduction of Pollutants from Land-Based Sources which had been prepared as part of this project. The plan was reflected in national policies and socio-economic development plans. The project also generated potential funding for several related projects to protect the global environment of the Mediterranean Sea through external investment institutions.

The enabling activity conducted for the Stockholm Convention on **Persistent Organic Pollutants** resulted in Syria's National Implementation Plan (NIP), which, in turn, has enabled the initial collection, verification, and analysis of POPs and the POPs situation in Syria and of options that can inform decisions at all levels. The government has consequently allocated funding for actions to eliminate POPs in Syria. The project also helped create a system for managing data on hazardous chemicals imported into Syria, and aided government agencies in strengthening national capacities to manage POPs and chemicals, particularly with regard to proper management and disposal of solid hazardous wastes.

In the **multifocal** area, the "National Capacity Self-Assessment (NCSA) for Global Environment Management" project enabled government institutions to develop new project concepts in biodiversity, land degradation, and climate change, and to coordinate the requirements of the three relevant conventions. The project also provided capacity building for government institutions and their staff, and highlighted gaps in existing capacities for determining needs and coordinating priorities in these three thematic areas.

No projects in the **land degradation** focal area have been supported by the GEF in Syria, although the government did promote a proposal for such a project. This project was ultimately not approved by the GEF for several reasons: the United Nations Convention to Combat Desertification (UNCCD) indicated that Africa was the priority region for

the GEF; there were not sufficient funds within the GEF; and it was decided to conduct a project focused on the Middle East and North Africa region (MENARID). The International Fund for Agricultural Development (IFAD), one of the GEF Agencies, has financed an extensive rural development program in Syria since 1982 which has land degradation components, but this receives no GEF support.

Conclusion 4: Long-term sustainability of achievements continues to be a challenge.

Long-term sustainability of GEF project results is a challenge in Syria, and two issues emerged during the CPE that shed light on why this is so. The first issue is related to the ability of the government to introduce policy changes in line with institutional and legal frameworks. In this regard, the government's response to developments in the biodiversity and climate change areas has been slow at times, but often forthcoming. The second issue relates to allocation of the necessary financial resources to implement required measures. Syria's general financial framework law has constrained executing agencies from acquiring the funding needed to implement recommended measures in GEF projects. For example, budgets are typically set based on the number of permanent employees, and this number cannot be changed without the issuance of a special decree; thus, it is no simple matter to increase human resources to implement recommended measures. Similarly, the collection of additional funds as part of new financial instruments is not possible because government agencies cannot take on this role, which can only be played by the Ministry of Finance.

Relevance

Conclusion 5: GEF support addressed national priorities in the biodiversity and climate change focal areas; other national priorities have not been addressed, however, such as inland international waters and land degradation.

The GEF portfolio in biodiversity protection and climate change constituted about 84 percent of GEF funding in Syria. These two focal areas were addressed in the last three five-year development plans which coincide with the period during which the GEF has worked in Syria. However, Syria has equally pressing national priorities in integrated water resource management and sustainable land management but has not received support for these from the GEF. Freshwater scarcity in the region and Syria's important surface water bodies shared with its neighbors point to missed opportunities for the GEF's meaningful involvement in projects that directly affect the quality of life of the peoples of the region. Similar arguments may be applicable to desertification and degradation of agricultural lands as food scarcity becomes a problem of regional significance given the area's population explosion.

The underlying issue is one of global versus national priorities. While biodiversity and climate change projects are considered to be responding more to a global or international agenda, the focal areas related to water and land degradation are seen as entirely national priorities.

Conclusion 6: The outcomes of SGP projects are more likely to be sustained by local communities than are those of full- or medium-size projects.

The SGP provides access to GEF funds for local communities and NGOs responding to their priorities and needs within the GEF mandate and focal areas. As was discovered by the Joint Evaluation of the GEF SGP (GEF EO 2008), the Syria CPE found that the outcomes of SGP projects are more likely to be sustained by local groups because these benefit them more directly than do medium-size projects (MSPs) or full-size projects (FSPs), which consequently require

government funding in order to sustain their outcomes.

Conclusion 7: Country ownership of the GEF portfolio is strong for national projects and less so for regional and global projects.

Concepts for national projects are typically proposed by the General Commission for Environmental Affairs (GCEA) in consultation with the GEF Agencies—mainly the United Nations Development Programme (UNDP)—based on previously identified national priorities. The projects are fully locally owned. Consequently, when they are completed, the relevant governmental executing agencies attempt to integrate their outcomes into their mandate and typically request additional budget allocations, although there are some shortcomings as noted in conclusion 4.

Regional and global projects, on the other hand, are typically initiated by GEF Agencies and communicated to national government counterparts; these in turn consult with the GCEA to coordinate with relevant government agencies for approval to join the project. Government support at project completion is generally forthcoming to sustain project outcomes, but to a lesser extent as compared to national projects. This disparity is evidenced by government cofinancing, which has been found to be more significant when project objectives are directly in line with national priorities for socioeconomic development.

Efficiency

Conclusion 8: The GEF is perceived by national stakeholders as too complicated and inefficient in ways that negatively affect project proposals and implementation.

The Syria CPE confirms the findings of previous evaluations conducted by the Evaluation Office. National executing agencies consider GEF processes and procedures in the project preparation phase to be overly complicated and inefficient. For that reason, project preparation is often delegated to GEF Agencies by governmental authorities. A key frustration is the long delays in project approval and completion. For the period reviewed, the time lag from project entry into the GEF pipeline to GEF Council approval could vary from three months to four years; the lag between Council approval and project start-up could range from one to two years. The time period for the entire process (from entry into the GEF pipeline to project start-up) ranged in Syria from 1.2 to 5.4 years.

Another issue of concern relates to expected and actual completion dates. Because many projects set unrealistic end dates to complete highly ambitious objectives, managerial and organizational problems arise, and executing agencies are deprived of a firm timetable for incorporating their findings and conclusions into their institutional structures. Project extensions for MSPs and FSPs varied from 60 to 120 percent of planned project duration; extensions for enabling activities varied from 27 to 100 percent.

Conclusion 9: Syria has limited access to GEF investment agencies, since the World Bank does not have a program in the country, and Syria does not belong to any of the regional banks with direct GEF access.

Syria has limited access to GEF investment agencies; the only one with which it participates is IFAD. The World Bank has not had a lending program or country strategy in Syria since 1986, although more recently, it has provided support through technical assistance. Furthermore, Syria is not a member of any of the regional development banks that can implement and manage GEF projects such as the African Development Bank and the Asian Development Bank.

Conclusion 10: The GEF focal point is overly internalized within the Ministry of State for Environmental Affairs, and there is no clear mechanism for developing and approving GEF-supported projects.

In Syria, there is no clear and systematic mechanism—such as a national committee—for prioritizing, developing, and approving GEF-supported projects. The role of the GEF focal point is assigned to the deputy minister in the MSEA, which is the primary executing agency for GEF projects in the country. The ministry oversees the work of the GCEA which consists of a number of environmental directorates. The ministry and the GCEA assume the responsibilities of the focal points for relevant international conventions—such as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and so on—in the GEF focal areas. Line ministries relevant to GEF work such as the MAAR and the Ministry of Electricity are not represented in the focal point mechanism. In selecting priority areas for allocation of GEF funds, the focal point consults with the convention focal points and national executing agencies via such management tools as project committees and priority-setting workshops.

1.3 Recommendations

Recommendations to the GEF Council

Recommendation 1: The GEF should increase its funding for land degradation and water management issues, both of which are high priorities for countries such as Syria.

GEF projects in Syria focus mostly on biodiversity and climate change, with land degradation and inland international waters receiving no support despite their being high national priorities. No GEF-supported projects combat land degradation, and the only GEF-supported international waters project in which Syria has participated is a regional action program for the Mediterranean Sea, which did not address important shared surface water bodies and freshwater scarcity issues in the region. The GEF's lack of support to these areas is keenly felt in a country such as Syria where land degradation and freshwater are major challenges in the environmental sector.

The possibility of additional allocations for activities in the field of sustainable land management and integrated water resource management should be further explored. In the future, GEF's support should include

- increased funding to national projects combating land degradation and desertification;
- increased funding to regional projects on international inland waters—in particular, the GEF should provide support to the government of Syria based on the extensive experience it has acquired in this area in other parts of the world.

Recommendation 2: The GEF should focus attention on those countries with limited access to the international financial institutions.

Syria is in an exceptional situation in that it has limited access to the GEF investment agencies. Other countries may be in a similar position. The GEF should conduct an inventory of such countries and develop proposals on how support can be provided through other institutions.

Recommendations to the Syrian Government

Recommendation 3: Adopt a proactive role in creating appropriate financial instruments and establishing legislative and institutional frameworks to support the sustainability of GEF project results.

The government should develop financial instruments that will ensure the sustainability

of GEF project outcomes; examples include the following:

- Foster private sector participation in the management of protected areas. Engaging the local community that has a clear interest in the sustainability of this natural resource for its livelihood is crucial to the success of this instrument.
- Authorize special fees to cover the implementation costs of measures recommended by GEF projects. Where appropriate, establish self-sustaining government entities that can recover their costs and use their profits for further development. Such a mechanism may be needed to provide adequate financial support in implementing the management plans generated by GEF-supported protected area projects.
- Provide the necessary resources to government agencies so they can train their personnel within a framework that ties training budget allocations to trainees' ability to implement the measures recommended by GEF projects.
- Establish a system of registration fees for newly introduced living modified organisms that supports implementation of the regulatory requirements of the Cartagena Protocol on Biosafety.

Recommendation 4: Syria should establish a permanent GEF national coordination committee.

The focal point mechanism should be strengthened through the establishment of a permanent GEF national committee. This committee should be linked to existing government development plans and strategies such as the 10th five-year development plan and the National Environmental Action Plan (NEAP). Committee members would include convention focal points from the MSEA and the GCEA, a broad range of ministerial partners involved in GEF work (for example, from the MAAR and the Ministries of Electricity and Irrigation), the SGP, NGOs, the private sector, and academia. Such a committee would set priorities for the programming and implementation of GEF resources. Approaches to consider in this regard include the following:

- Use the NCSA enabling activity to identify the capacity required to implement the strategy and plans for meeting the requirements of each convention.
- Establish priority plans and budgets to act on the identified country needs for future GEF support, particularly in GEF-5 (2010–14), as very little funds are left in GEF-4 (2006–10).
- Actively seek the cooperation of GEF Agencies such as the World Bank, IFAD, and the Food and Agriculture Organization of the United Nations (FAO).
- Expand the roles of national executing agencies in the project preparation process to include stakeholder government institutions, NGOs, and the SGP.
- In coordination with neighboring countries, consider participating in projects in land degradation and inland international waters through funds allocated for GEF-5, and attempt to benefit from the GEF experience in politically sensitive international water basins.
- Use the National Dialogue Initiative to involve a wide range of stakeholders.

2. Evaluation Framework

This chapter presents the background information, objectives, and methodology related to and used in GEF country portfolio evaluations.

2.1 Background

The CPEs were initiated following a decision by the GEF Council that the GEF Evaluation Office should conduct evaluations of the GEF portfolio at the country level. The overall purpose of the GEF CPEs is twofold:

- To evaluate how GEF-supported activities fit into national strategies and priorities, as well as within the global environmental mandate of the GEF
- To provide the Council with additional information on the results of GEF-supported activities and how these activities are implemented

Countries are selected for portfolio evaluation from the 160 countries eligible for GEF support, based on stratified randomized selection and a set of strategic criteria.

To date, the Evaluation Office has conducted seven CPEs: for Costa Rica (pilot case in 2006); the Philippines and Samoa (in 2007); and Benin, Cameroon, Madagascar, and South Africa (in 2008). Documents for the completed evaluations are available on the GEF Evaluation Office Web site. Most recently, portfolio evaluations were undertaken in Syria and Egypt. The findings and recommendations from these CPEs as well as from Cameroon (the Cameroon CPE was not completed until after the April 2008 Council meeting) were synthesized in a single report and presented in June 2009 to the GEF Council to assess and report on experiences and common issues across different types of countries (GEF EO 2009).

Syria was selected for evaluation on the basis of its individual allocation for climate change and its group allocation for biodiversity under the RAF, and its relatively small GEF portfolio, among several other considerations.

2.2 Objectives

Based on the CPE's overall purpose, this evaluation had the following specific objectives (see annex A for the terms of reference):

- Independently evaluate the **relevance and efficiency** of GEF support in Syria from several points of view: national environmental frameworks and decision-making processes, the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures.
- Assess the **effectiveness and results** of completed and ongoing projects in each relevant focal area.
- Provide additional **evaluative evidence** to other evaluations conducted or sponsored by the

GEF Evaluation Office, especially the Fourth Overall Performance Study.

- Provide **feedback and knowledge sharing** to (1) the GEF Council in its decision-making process to allocate resources and develop policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF support.

The CPEs do not aim to evaluate or rate the performance of the GEF Agencies, partners, or national governments. The evaluations do analyze the performance of individual projects as part of the overall GEF portfolio, but without rating such projects.

Key Evaluation Questions

Chapters 5, 6, and 7 address the three main areas of the evaluation, namely the results and effectiveness, relevance, and efficiency of GEF support, respectively. Each chapter begins by listing certain key questions that have guided the evaluation process. Each question is supported by an evaluation matrix (see annex B), which contains a tentative list of indicators or basic data, potential sources of information, and methodology components. The matrix was continuously developed throughout the evaluation process. The evaluation made use of the indicators in GEF project documents, as well as indicators in each of the focal areas, the RAF, and any appropriate national sustainable development and environmental indicators.

Scope of the Evaluation

To date, since 1994, the GEF has invested about $12.7 million (with about $32 million in cofinancing) through 10 **national** projects (5 biodiversity, 2 climate change, 2 POPs, 1 multifocal) and the Small Grants Programme in Syria. This portfolio of projects is the main focus of the evaluation. GEF financing to the SGP amounted to about $1 million. This program has been in existence in Syria since 2005. GEF support also includes a series of enabling activities for all the focal areas as requested and required by the international conventions for which the GEF serves as a financial mechanism. Financing for the enabling activities supported by the GEF is about $1 million. Syria has participated in 13 initiatives supported by the GEF that have a **regional or global** scope. Chapter 4 outlines GEF support to the national, regional, and global projects in which Syria has participated.

Proposals under preparation—for example, those that are in pipelines—were not explicitly part of the evaluation. Projects that have received endorsement by the GEF Chief Executive Officer (CEO), and for which the GEF has made a financial commitment, but do not yet have activities in Syria are identified but not discussed.

Thus, the GEF portfolio assessed in this evaluation is the aggregate of the national projects plus the regional and global projects. The project stage determined the evaluation focus, as shown in table A.3.

The context in which the projects were developed and approved and in which they are being implemented constitutes the focus of the evaluation, as discussed in chapter 3:

- **Potential for securing global environmental benefits in each focal area.** This situational analysis provides a basis for assessing whether the maximum potential national and global benefits have been secured.
- **Relevant national policy, legislative, strategy, planning, and institutional frameworks.** This context provides a basis for assessing the relevance of the portfolio to national frameworks and priorities.

- **GEF policies, principles, programs, and strategies.** This context enables assessment of the relevance of the portfolio to the GEF.

The evaluation is not intended to comprehensively cover the country's response to the different global conventions, because this response goes beyond the GEF. Rather, it only considers GEF support; the country will usually have a wider set of responses to the conventions that do not include the GEF.

2.3 Methodology

The Syria CPE was conducted between October 2008 and April 2009, and the evaluation team consisted of staff from the GEF Evaluation Office and a lead consultant from a regional environmental company, EcoConServ Environmental Solutions. The team was headed by a task manager from the GEF Evaluation Office. The methodology included a series of components using a combination of qualitative and quantitative methods and tools. The **qualitative** aspects of the evaluation are based on the following sources of information:

- **At the project level**, project documents, project implementation reports, terminal evaluations or closure reports, and reports from monitoring visits
- **At the country level**, documents relevant to the broad national sustainable development and environmental agenda, priorities, and strategies; specific policies, strategies, and action plans relevant to focal areas; GEF-supported strategies and action plans relevant to the global conventions; and national environmental indicators
- **At the GEF Agency level**, country assistance strategies and frameworks and their evaluations and reviews, specifically from UNDP
- Evaluative evidence **at the country level** from GEF Evaluation Office evaluations and the overall performance studies, or from national evaluations
- **Statistics and scientific sources**, especially for the statistical abstracts
- **Interviews with GEF stakeholders**, including relevant government departments, national executing agencies, NGOs, presently active GEF Agencies, and the SGP (annex D lists those interviewed)
- A limited number of **field visits** to project sites, including interviews with GEF beneficiaries at the community level where possible (annex E lists these field visits)
- Information from the **national consultation workshop** held March 4, 2009, to enable comment and discussion on the draft report before it was finalized, as well as written comments (annex F lists workshop attendees)

The **quantitative** analysis used indicators to assess the efficiency of GEF support using projects as the unit of analysis (that is, time and cost of preparing and implementing projects and so on). The evaluation team used standardized CPE tools and protocols and adapted these to the Syrian context. These tools included

- an evaluation matrix outlining the information relevant to the evaluation and expected sources (see annex B);
- project review protocols to conduct the reviews of GEF national, regional, and global projects;
- an interview guide for use with different stakeholders.

Projects were selected for visits based on whether they had been completed and on their geographic clustering (which made a visit to a number of

projects in a particular geographic area within limited time frames a possibility).

The process and outputs of the evaluation are outlined in the terms of reference for the evaluation (see annex A). The three main phases of the evaluation were to

- conduct the evaluation, including at least one visit by GEF Evaluation Office representatives;
- present a draft report at a consultation workshop with major stakeholders;
- prepare a final report incorporating any comments, which was then presented to the GEF Council and the recipient government.

2.4 Limitations of the Evaluation

CPEs are challenging as the GEF does not operate by establishing country programs that specify expected achievements through programmatic objectives, indicators, and targets. In general, CPEs entail some degree of retrofitting of frameworks to be able to judge the relevance of the aggregated results of a diverse portfolio of projects. Accordingly, the basic evaluation frame proposed by the GEF was adapted, along with the other relevant policy, strategy, and planning frameworks outlined in chapter 3, as a basis for assessing the results and relevance of the portfolio to the Syrian context.

Attribution is another area of complexity. GEF support within any area is one contribution among others and provided through partnerships with many institutions. The CPE does not attempt to attribute development or even environmental results directly to the GEF, but assesses the contribution of GEF support to overall achievements.

The assessment of results is focused, where possible, at the level of outcomes and impacts rather than outputs. Project-level results are measured against the overall expected impacts and outcomes from each project (see annex C). Expected impacts at the focal area level are assessed in the context of GEF objectives and indicators of global environmental benefits. Outcomes at the focal area level are primarily assessed in relation to catalytic and replication effects, institutional sustainability and capacity building, and awareness. This report provides information compiled primarily from project documents, reports, and evaluations, supplemented by interviews and a limited number of field visits.

Evaluating the impacts of GEF-funded initiatives is not straightforward. Many projects do not clearly or appropriately specify the expected impacts and sometimes even the outcomes of projects. Often, the type of information provided by project reports and terminal evaluations is limited to outcomes or just outputs and does not contain an evaluation of impacts. The project documents do not always provide clear, consistent formulations of objectives, indicators, and targets or baselines from which progress can be assessed. The absence of information on project impacts is also attributed to the time frames of evaluation cycles; evaluations are usually conducted before measurable impacts can be expected.

As this evaluation was restricted to secondary sources, it did not have scope for conducting primary research to supplement project reports or identify impacts and outcomes. The evaluation team depended on documentation supplied by the GEF Agencies that was not always complete and relied on project reports that were sometimes relatively dated, given that the reporting cycle is at best annual. Also, the evaluation team did not have access to a complete set of terminal evaluations for even completed projects, because some

of the terminal evaluations are under preparation or are not required by GEF procedures (such as for completed enabling activities). Nevertheless, many projects provided some information that was relevant to impacts or outcomes or indicative of the potential for future impacts or outcomes.

3. Context of the Evaluation

The first section of this chapter provides a general context for the evaluation by presenting information about Syria's socioeconomic and environmental situation. The second presents a contextual analysis assessing the current state of the environment in each GEF focal area. This analysis formed the basis for review of the relevance of GEF support to Syria in the context of their joint goals and priorities. The third section summarizes a review conducted of Syria's policy, legislative, strategy, and planning frameworks as a basis for assessing the relevance of the GEF portfolio to Syria's environmental priorities in general and as reflected in the frameworks in each focal area. The fourth section briefly discusses the GEF focal point mechanism in Syria.

3.1 Syria: General Description

Socioeconomic Situation

Syria is a middle-income country with a per capita gross domestic product (GDP) of about $2,060 and an overall GDP of $40 billion in 2007 (Central Bureau for Statistics 2008). According to statistics from the International Monetary Fund, Syria's GDP growth rate was approximately 2.9 percent in 2005. Country profile data are presented in table 3.1. The two main pillars of the Syrian economy have traditionally been agriculture and oil (this latter is subsumed under "mining and manufacturing" in the table), which together account for more than 50 percent of the country's GDP. The government hopes to attract new investment in the tourism, natural gas, and service sectors to diversify its economy and reduce its dependence

Table 3.1

General Profile for Syria

Indicator	Value	
Surface area	185,000 square kilometers	
Population growth rate	2.19% (2008)	
Population distribution by gender	Male, 50.2% Female, 49.8%	
Population distribution by governorate (%)	Damascus	7.5
	Damascus rural	7.7
	Aleppo	23.8
	Homs	8.9
	Hama	8.7
	Lattakia	5.2
	Deir Ezzor	6.8
	Idleb	8.4
	Hassakeh	6.5
	Rakha	4.0
	Sweida	2.1
	Dara'a	4.5
	Tartous	4.0
	Quneitra	2.0
Major sectors, 2007 (% of GDP)	Agriculture	20
	Mining & manufacturing	32
	Wholesale & retail trade	17
	Transport & communication	10
	Government services	10
	Other sectors	11
Social & personal services	2% of GDP; distributed to 19.88 million people	

Source: Central Bureau for Statistics 2008.

on oil and agriculture. The government has begun to institute economic reforms aimed at liberalizing most markets, but reform thus far has been slow and ad hoc.

During the second half of the 20th century, Syria's population increased by more than 300 percent, reaching 19.5 million in 2007.[1] The Syrian government estimates the average population growth rate over the past 10 years at 2.45 percent, with 75 percent of the population under the age of 35 and more than 40 percent under the age of 15. The literacy rate for Syrians aged 15 and older is 88 percent for males and 74 percent for females. Syria's ranking on the UNDP Human Development Index increased from 0.676 in 1995 to 0.724 in 2005. Approximately 200,000 people enter the labor market every year. The estimated 2008 unemployment rate is 9 percent. According to the UNDP poverty report, as of 2005, 30 percent of the Syrian population lived in poverty and 11.4 percent lived below the subsistence level. The report stated that economic growth was not pro-poor and that wealth inequality increased from 1997 to 2004 with the Gini coefficient rising from 0.33 to 0.37 over the time period (UNDP 2005b). In an effort to reduce the growing gap between rich and poor, the government launched an investment drive for the northeastern regions, which are the country's poorest, aiming at over LS 65 billion ($1.3 billion) worth of investment. These conditions provided opportunities and posed challenges on the environment as explained below.

Opportunities and Challenges for the Environment

Economic development is often regarded as the main cause for environmental degradation. The demand for access to additional water and land resources, and the need for infrastructure to enhance socioeconomic development for the growing population, are often characterized as threats to environmental conservation. Nevertheless, Syria's current policies reflect decision makers' awareness and understanding of the need to balance the three pillars of sustainable development: social equity, economic development, and environmental conservation. Table 3.2 presents an environmental snapshot of Syria, providing an integrated picture of the state of the environment and environmental sustainability trends through a range of indicators.

According to Syria's 10th five-year plan (2006–10), opportunities and challenges for the environment can be classified according to the three pillars of sustainable development.

- **Economic.** Opportunities include the introduction of market instruments and the continued economic transition toward a social market economy which doubled the GDP growth rate in the last three years. Challenges include a lack of clear long-term strategies and economic reform plans, a lack of public participation in policy-making processes, and the rigidity of government legal and institutional structures.
- **Social.** Opportunities include the commitment of decision makers to account for the negative socioeconomic impacts of development policies and a willingness to implement measures to ensure social equity for all. Challenges include the high population growth rate, the scarcity of employment opportunities, and a lack of coordination between educational institutions and the labor market.
- **Environmental.** Opportunities here include increased awareness regarding the need to halt environmental degradation and the introduction of institutional structures within

[1] Much of the data presented in this section are from the *CIA World Factbook*, as compiled at **http://indexmundi.com/syria**.

Table 3.2

Syria's Environmental Sustainability Profile: Status and Trends

Factor	Status/trends
Agricultural practices	
Food production per person	**Increasing**, notably for wheat and major food crops
Food productivity per unit of land area	**Increasing**, pointing to increased fertilizer use and irrigated agriculture
Air quality	
Air quality in general	**Decreasing**, with high particulate matter (PM_{10}) levels and sulfur dioxide
Health problems attributable to air pollution	**Increasing** in the next decade
Vehicle exhaust emissions	**Increasing**, with various pollutants increasing by 15.5% by 2010 (from 2000 levels) if emissions controls are not put in place
Biodiversity	
Biodiversity loss	**Increasing**, with almost 10% of birds, 25% of mammals, 30% of reptiles, and 5% of plants threatened
Ecosystem health	**Declining** in general with forest, wetland, and semidesert ecosystems in worst condition due also to climatic conditions
Programs to rehabilitate species	**Increasing**, including Arabian oryx, Arabian gazelle, and bald ibis
Climate change	
GHG emissions	**Increasing** at a rate of 5% per year
GHG emissions from road transport	**Increasing** at a rate of 11% per year
GHG emissions per person	2.8 tons per year
Coastal development	
Uncontrolled coastal development	**Increasing**, leading to habitat change and degradation
Energy consumption and efficiency	
Energy consumption	**Increasing** at an average rate of 9% since 1991
Energy efficiency	**Low**, but slight improvement in recent years, particularly in building construction
Freshwater resources	
Use of available water resources	**Increasing**, most exploitable sources tapped and groundwater aquifers depleted
Water quality	**Declining**, with overall deterioration
Health of lake ecosystems	**Declining**, with effluent pollution from agricultural runoff and/or human settlements
Health of river ecosystems	**Declining**, with effluent pollution from industrial activities and human settlements
Land degradation	
Extent of land degradation	**Increasing**, affecting 59% of the country's surface area
Land use	
Availability of arable land	**Declining** because of expansion of settlements and other activities, particularly in the vicinity of Damascus

(continued)

Table 3.2

Syria's Environmental Sustainability Profile: Status and Trends *(continued)*

Factor	Status/trends
Marine biodiversity and fish stocks	
Threats to marine biodiversity	**Increasing**, with almost 12% of marine fauna threatened
Populations of abalone and line fish	**Declining** dramatically
Species listed as endangered or vulnerable	**Increasing,** for example, bird species affected by long-line fishing
Sardine fishery	**Recovering** after near collapse in late 1960s, currently healthy
POPs	
Inventory and quantities	**Determined** and needs plans and means for disposal identified
Renewable energy	
Use of renewable energy	**Increasing** slowly, mainly solar water heating
Urbanization and housing	
Informal settlements	**Expanding** rapidly around urban centers and periurban areas, covering as much as 50% of the area of the cities of Damascus and Aleppo

Source: MSEA 2006.

government entities with a clear mandate for the preservation of the environment. Challenges include the scarcity of environmental resources (such as water and land), the fact that the concept of environmental capital has not been incorporated into economic development plans, a lack of tools and necessary financing to enforce environmental legislation, a lack of comprehensive plans and capacities for the preservation of environmental resources, an absence of data and information on the state of environmental resources essential for proper decision making, and overlapping responsibilities among the various government entities for proper management of environmental resources.

3.2 Status of Environmental Resources in Key GEF Focal Areas

Biodiversity

Syria is home to a number of diverse flora and fauna owing to its varying topographical, climatic, and soil conditions, which create a wide range of ecosystems. Table 3.3 presents a snapshot of Syria's biodiversity.

Status of Ecosystems

Biomes found in Syria include marine, coastal, forest, wetland, and semidesert. Presently, forests

Table 3.3

Syria's Endemic Species by Biological Group

Group	Number of endemic species	Number of world species	Share of total (%)
Fungi	641	46,983	1.4
Bacteria	55	26,900	1.5
Algae	754	30,600	2.4
Gymnosperms	100	750	1.3
Angiosperms	3,100	220,000	1.4
Insects	1,449	751,000	0.1
Fish	452	19,056	2.4
Amphibians	16	4,184	0.4
Reptiles	127	6,300	2.0
Birds	394	9,040	4.4
Mammals	125	4,000	3.1

Sources: MSEA 1998b; Syrian Society for Conservation of Wildlife 2008.

cover around 3 percent of Syria's total land area. However, at the beginning of the last century, they constituted over 32 percent of the land area. Examples of the decline in forestland include the famous Orchards of Damascus, which used to cover over 3,000 hectares and are now reduced to only a few hundred hectares, and the decreasing forest areas of Abdul Aziz, Abo Rajmein, and the Balaas Mountains, which were in their prime rich in ecological biodiversity.

The Badia desert ecosystem, which provides a natural habitat and grazing grounds for livestock, has also come under threat as a result of overexploitation by human activities in hunting and grazing, in addition to seasonal drought. As a result, a variety of animals and birds have disappeared, and many plant species have been replaced by grass of less nutritional value for cattle grazing.

Aquatic ecosystems have experienced rapid degradation as a result of overfishing and the use of illegal fishing methods (such as batch catch, explosives, and poison). Due to the pollution of coastal waters from land-based and marine sources, fish, marine mammals, and plant species are disappearing. The biodiversity of inland water bodies such as the Euphrates and Orontes Rivers are similarly affected.

Status of Flora Species

There are at least 3,150 **land** plant species, classified into 919 genera and 133 families, in Syria. This results in a diversity of 0.718 families, 4.97 genera, and 16.6 species per 1,000 square meters—a significant figure as compared to other regions at the same latitude. The status of Syria's plant species is presented in table 3.4.

Table 3.5 presents the status of the flora of Pteridophytes. These consist of nearly 22 species, 19 of which are threatened.

Table 3.4

Status of Plant Species in Syria

Status	Amount
Total number of species	3,150
Number of extinct species	4
Number of critically endangered species	7
Number of endangered species	28
Number of variable species	36
Percentage endangered	2

Source: MSEA 1998b.

Table 3.5

Status of Pteridophytes in Syria

Group	Number of families	Number of genera	Number of species	
			Total	Threatened
Lycopodiophyta	2	3	3	2
Equisetophyta	1	1	2	2
Polypodiophyta	6	15	17	15
Total	**9**	**19**	**22**	**19**

Source: MSEA 1998b.

Concerning **freshwater** flora, Syria's 1998 National Biodiversity Country Study recorded 17 families of bacteria consisting of 31 genera and an undefined number of species related to three main families: *Enterobacteriaceae, Streptococcaceae*, and *Pseudomonaceae*. The study also identified 176 species of fungi, 27 species of *Bryophyta*, 13 species of *Pteridophyta*, and 298 species of *Spermatophyta*.

Finally, regarding **marine** flora, the National Biodiversity Country Study found that algae represent the most important type of marine life in Syria as far as biology and physiology are concerned. They constitute one of the most important elements of the marine environment of significant economical value. Research studies have provided evidence of the existence of over 660 algae species in the eastern Mediterranean marine environment.

Status of Fauna Species

The 1998 National Biodiversity Country Study found more than 3,000 terrestrial and aquatic fauna species in Syria. These include 394 bird species, 15 of which are labeled of global significance according to the IUCN Red List, Bird Life International, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) appendixes I, II, and III (2005). The study also found evidence of 125 species of **land** mammals and 127 reptiles, 34 of which are threatened. Syria's wide animal biodiversity is endangered due to the destruction of habitats by human activities such as the use of pesticides, overhunting, and overfishing.

Little information is available regarding the status of **freshwater** fauna species, with the exception of fish, where reference calculations showed the presence of 157 species belonging to 56 genera under 19 families of bony fishes.

Concerning **marine** fauna, the study found evidence of the presence of 1,027 species in the coastal waters, including 100 species of *Foraminifera* and 15 species of *Spongia*, most of which are threatened with extinction due to overharvesting. It also recorded around 295 species of marine fish (49 *Chondrichthyes* and 246 *Osteichthyes*).

Mammals found in marine waters include 10 whale *Cestacean* whale species, in addition to the Mediterranean seal *Monachus monachus*, listed in CITES appendix I; however, the seal is rarely seen along the Syrian coastline. Four *Chelonien* turtle species threatened with extinction have also been traced, while *Caretta caretta* is the most abundant turtle in Syrian marine waters.

Protection Status of Biodiversity

Loss of biodiversity has been an inevitable consequence of the habitat destruction that has accompanied population growth, urban development, and an absence of strict enforcement of laws and regulations in Syria. The National Strategy and Action Plan on Biodiversity which was ratified by Syria's Council for the Protection of the Environment and Sustainable Development in 2002 encompasses the establishment of protected areas (natural reserves), genetic banks, animal zoos, and botanical gardens; monitoring of national and international trade of endangered species of fauna and flora; control of hunting activities; and conducting awareness-raising campaigns for the local population, involving the public in protection campaigns, updating existing laws, developing new legislation, and conducting research activities. With the introduction of Environment Law No. 50 in 2002, biodiversity was recognized as a legitimate natural resource requiring protection. Consequently, the Ministry of Local Administration and Environment[2] in coordination with the Ministry of Agriculture and Agrarian Reform issued a number of decisions and institutionalized the protection and conservation of flora and fauna in Syria. Nevertheless, implementation of laws and decisions requires financing, awareness, and the commitment of decision makers to biodiversity conservation. Although significant efforts have been made in this domain, there is still a long way to go before reaching a satisfactory level of biodiversity conservation and maintenance in Syria.

Status of Biotechnology

As in most other developing countries, biotechnology in Syria is still in its infancy, lagging behind the progress of developed countries. Despite some efforts to catch up in this rapidly growing

[2] In 2009, the Ministry of State for Environmental Affairs was created, which took over the environmental functions of the Ministry of Local Administration and Environment.

area, very limited work has been done on subjects that are directly related to biodiversity. Most biotechnological work in Syria is in areas that have direct economic return as in the field of agriculture. Traditional biotechnology is common in food production. Plant tissue culture attracts high attention from the public sector. Private laboratories commercially produce regenerated plants such as ornamentals and date palm, potatoes, and bananas. Several universities have also established graduate and undergraduate programs in biotechnology or genetic engineering.

Animal and human cell culture is mainly centered on medical and veterinary applications. Other commercial applications of biotechnology in Syria include some agricultural input, particularly in the plant protection area. The state has initiated the production of alternatives to chemical pesticides by commercializing biopesticides for control of plant diseases and pests using natural enemies. It is also importing and marketing biopesticides.

Climate Change

Status of GHG Emissions

The most recent inventory of greenhouse gases for Syria (1990–94) formed the basis for the report (ESRC 2000) prepared by the Environmental and Scientific Research Center in collaboration with the German Agency for Technical Cooperation (GTZ).[3] That inventory found that the 1990 total GHG emissions of 25.3 kilotons of CO_2 equivalent increased in 1994 to 30.8 kilotons, at a rate of 5 percent per year. Syria's GHG inventory is being updated within the framework of the "Enabling Activities for Preparation of Syria's Initial National Communication (INC) to UNFCCC" (GEF ID 2387), which is being carried out in collaboration with UNDP and supported by the GEF. Table 3.6 shows emissions of the three main GHGs (CO_2, methane, and nitrous oxide) for 2005 for the various sectors in Syria. As can be seen, CO_2 is the most significant GHG, accounting for more than 99 percent of emissions for all sectors, with energy, transport, and household sources being the largest.

Table 3.6

Syria's National GHG Emissions by Sector, 2005
kilotons

Sector	CO_2	Methane	Nitrous oxide
Energy	18,000	0.81	0.140
Industry	8,100	0.141	0.0148
Transport	12,500	0.155	0.0164
Household	10,600	0.154	0.010
Agriculture	1,900	0.050	0.006
Total	**51,100**	**0.715**	**0.071**

Source: ESRC 2000.

Sectors that are primary contributors to GHG emissions in Syria are shown in table 3.7, forecast to 2010 based on the available 1990 and 1994 data. Electricity generation followed by transport and residential heating are the main sectors; together, they account for more than 80 percent of total GHG emissions in Syria. The yearly rate of increase in GHG emissions for all sectors varies, on average, between 4 and 6 percent.

Energy

The Syrian energy system is characterized by low per capita consumption. As presented in table 3.8, primary energy consumption per capita in Syria in 2004 was 0.99 tons of oil equivalent compared to 1.77 tons of oil equivalent for the world average and 2.64 tons of oil equivalent for the Middle East. CO_2 emissions per capita were at the same level as the world average.

[3] No official emissions data are expected until the new inventory is completed in 2010.

Table 3.7

Total CO_2 Emissions in Syria

Sector	Million tons of CO_2					Average contribution (%)
	1990	1994	2000	2005	2010	
Electricity generation	8.4	10.5	14.0	18.0	22.6	35
Industrial	4.1	4.9	6.5	8.1	10.6	16
Transport	5.3	7.5	10.0	12.5	15.5	24
Residential	5.6	6.0	8.5	10.6	12.4	21
Agriculture	1.9	1.9	1.9	1.9	1.9	5

Source: ESRC 2000.

Table 3.8

Per Capita Selected Energy Indicators, 2004

Region	Primary energy (tons of oil equivalent)	Final electricity consumption (kilowatt-hours)	CO_2 emissions (tons)
Syria	0.99	1,317	2.57
Middle East	2.64	2,881	6.51
Asia	0.63	617	1.22
Africa	0.67	547	0.93
World avg.	**1.77**	**2,516**	**2.57**

Source: IEA 2004.

Table 3.9

Energy Consumption for Various Sectors in Syria, 2005

Sector	Megatons of oil equivalent	%
Energy industries	9.44	49
Public electricity	7.14	37
Refining and extraction	2.30	12
Manufacturing and construction	2.37	12
Transport	4.53	23
Other sectors	3.06	16
Service	0.44	2
Residential	2.62	14
Total energy consumption	**19.40**	**100**

Source: Meslmani and Hainoun 2009.

As indicated in table 3.9, the largest energy-consuming sectors in 2005 were the energy industries including electricity generation and refining/extraction (49 percent), followed by the transport sector (23 percent); together, these accounted for over 70 percent of total energy consumption. The remaining sectors accounted for less than one-third of final energy demand in 2005, half of which went for residential heating (14 percent), and 12 percent for manufacturing industries.

Mitigation Options

Mitigation measures to deal with climate change can only be successful when they are integrated with policies that take into account the challenges of development to meet basic needs. Typically, this includes an analysis of the feasibility—technical and financial—in addition to the practicability and likely impact of the mitigation measure.

The National Energy Research Centre assessed a number of mitigation measures for energy efficiency categorized by sector (industrial, transport, and residential) and for alternative renewable energies (Kraidy 2007).

Concerning energy efficiency in the **industrial sector**, mitigation measures include

- substitution of fuel oil with natural gas in energy generation,
- improvement of performance of electrical power generators,

- improvement of output from boilers.

Reductions in CO_2 emissions likely to occur in comparison with the "business as usual" scenario vary from 3 percent for natural gas to 6 percent for improving the performance of electrical power generators.

In the **transport sector**, mitigation measures include

- renewal of the transport fleet,
- promotion of mass transport.

Reductions in CO_2 emissions likely to occur in comparison with the "business as usual" scenario vary from 4 to 5 percent for both options.

In the **residential sector**, mitigation measures include

- replacement of standard light bulbs with energy-saving light bulbs,
- improving heating processes.

Reductions in CO_2 emissions likely to occur in comparison with the "business as usual" scenario vary from 4 percent for changing to energy-saving light bulbs to 11 percent for improving heating sources.

Concerning **renewable energies**, the National Energy Research Centre reports that by 2010,

- wind turbines could reduce CO_2 emissions by 0.1 million tons;
- solar panels could result in reducing CO_2 emissions by 0.05 million tons;
- photovoltaic cells, which are the least efficient measure, could reduce CO_2 emissions only by 0.00063 million tons.

Mitigation measures include institutional changes that promote the industrial and residential sectors shifting their economic activities and investment to less energy-intensive processes. Examples include incentives to change to solar heaters or use energy efficient vehicles.

Barriers to Energy Efficiency and Renewable Energy Implementation in Syria

According to the national study for energy efficiency and renewable energies undertaken by the National Energy Research Centre (Kraidy 2007), barriers that have been primarily responsible for the relatively limited development and acceptance of energy efficiency and renewable energy programs, in particular pilot and commercial applications, in Syria include the following:

- the lack of an institutional structure with clear responsibility to develop policy and legislation, and to support regulatory evolution;
- heavily subsidized conventional energy carriers;
- a lack of incentives in the public sector to respond to market-driven demand;
- a lack of favorable import duties for energy efficiency and renewable energy industries to the private sector;
- an absence of financial mechanisms and instruments to encourage energy efficiency and renewable energy manufacture or use by the private sector;
- a lack of awareness of energy efficiency and renewable energy potential or opportunities;
- a limited scope on the part of research institutes to interface and network with international bodies and share expertise;
- a lack of a skilled labor base to support integration of these technologies into the market.

However, the situation is evolving. The process of introducing market economy tools as promoted by the 10th five-year plan is facilitating this evolution, but needs support—internally—through policy and regulatory measures to stimulate market

opportunities and—externally—to introduce innovative methodologies, attractive schemes, investment capital, flexible financial mechanisms, and expertise.

Vulnerability to Climate Change and Adaptation

According to "Vulnerability Assessment and Adaptation Measures," one of the subreports of Syria's INC (Meslmani 2009b), potential changes in the eastern Mediterranean climate over the next 50 years pose significant threats including the following:

- Average warming in Syria for the year 2041 will be higher than the global average.
- The highest temperature increases, varying between 2.0 and 2.1 degrees Celsius, will occur in the northwest and southeast regions of the country; the rest of the country will see a rise in temperature of at least 1.0 to 1.2 degrees Celsius.
- The highest increase in precipitation will occur in summer and autumn in all regions.
- Sea level will rise by an average of 70 centimeters by 2100.

Meslmani (2009b) concludes that impacts on the **agricultural sector** will consist of an increase in water requirements for wheat by about 9 percent—which, if not available, would result in a yield reduction of between 10 and 14 percent. For cotton, water needs will increase by 8 percent, or would lead to a reduction in yield of 5 percent. For olive trees, the increase in water requirements will be around 10 percent, or a reduced yield if these needs are not met of 5 percent. Adaptation measures include adopting heat-tolerant cultivars, changing crop practices (optimum sowing date, cultivars, water amount, and plant density), modernizing water practices and improving irrigation management, and increasing rain effectiveness by practicing conservation farming.

Impacts on the **water sector** in the mid-21st century will consist of a reduction of rainfall by 25 percent, which will lower the discharge of the Euphrates River (from which Syria obtains 36 percent of its renewable water resources) by 42 percent. Adaptations include modernization of on-farm irrigation systems; enhancement of regulatory measures to improve water management; adoption of the integrated water resource management concept; integration of water policies and water-saving strategies into national policies affecting water supply, water use, land use agriculture and environment policies; and building institutional and technical capacity of water-related institutions.

For **forests**, a decrease in precipitation and an increase in temperature may cause spatial shifts in forest vegetation zones in mountain areas; man-made forests, which make up more than 52 percent of the country's forests, will be vulnerable to climate change as most of these are planted in low rainfall areas. Adaptation includes protection of forests and development of strategies to combat wildfires, rehabilitation of burned and degraded forests, and establishment of a network of functional protected areas.

In terms of **biodiversity**, 68 species in Syria are currently considered threatened. Seven are listed as critically threatened, 26 are endangered, and 35 are vulnerable (IUCN 2008). Climate change may put additional pressures on these species, thus increasing the rate of their extinction. Also, the increasing demand on water for irrigation will deplete groundwater aquifers; this in turn will have a negative impact on wetlands.

The physical impacts of the rise in sea level will include the following (Meslmani 2009b):

- inundation of about 22 percent of the coastline,
- increased salinity of aquifers due to seawater intrusion,
- erosion in some coastal areas.

International Waters

Marine Resources

The Syrian coastline extends for about 183 kilometers along the Mediterranean Sea. The region is characterized by its sandy mountainous terrains and flat lowlands. The coastal strip includes wetlands, river estuaries, coastal cliffs, and other diverse habitats. Sandy beaches are encountered near the city of Lattakia and do not exceed 40 kilometers in length. The sea is generally deep, and the continental shelf is narrow (less than 1 kilometer in some locations; the widest point is 16 kilometers to the south of the city of Tartous). The shoreline has few gulfs and bays, and does not support nursing and reproduction of biological species. Freshwater input into the sea is very low due to the damming of coastal rivers. This results in higher pollution concentration in the coastal rivers and their estuaries. Consequently, the seawater along the Syrian coastline (as along other parts of the eastern Mediterranean) is oligotrophic and characterized by high salinity, low primary productivity, slow water currents, and low tidal waves. These conditions slow the dispersion rate of pollutants and increase the impact of pollution on marine life.

The most recent report on priority pollution hotspots (Kayyal 2002) identified four areas along the Syrian coastline that have a significant negative effect on human health, ecosystems, biodiversity, and the economy. The most critical hotspot is Banias. The "National Diagnostic Analysis of Syria" report (Ibrahim 2003) states that common environmental problems in the Syrian coastal region have their origins in the urban environment, industrial development, and physical alteration and destruction of habitats. Concerning the urban environment, the report indicates that urban activities affect the marine environment along the Syrian coastline via municipal sewage and municipal solid waste. Regarding industrial development, the report distinguishes between the impacts of major industrial complexes and small-scale industrial facilities. Major industrial complexes include the Banias oil refinery, the Tartous cement plant, the phosphate loading dock at the Port of Tartous, the two oil terminals of Banias and Tartous, and the thermal power generation station in Banias. Small-scale industries include steel rolling mills, food processing, beverage, olive oil mills, cattle and sheep slaughterhouses, textiles, and various agricultural-related activities such as confined animal facilities and greenhouses.

Inland Water Resources

Syria is an arid to semi-arid country, with average rainfall ranging from more than 500 millimeters per year in the coastal areas to less than 200 millimeters per year inlands toward the southeast of the country. The uneven rainfall distribution directly affects the availability of water in Syria's seven surface water basins, five of which are in water deficit (MSEA 2006). Average per capita water availability is estimated at 800 cubic meters per year, including Syria's share of water from the Euphrates River; Turkey and Iraq also share this resource (SPC 2005). Syria is thus a water-stressed country, since water availability is below the threshold of 1,000 cubic meters per year per capita.

Syria has signed the U.N. Convention on the Law of Non-Navigational Uses of International Watercourses, which requires concluding watercourse agreements with neighboring states to protect and preserve the ecosystems of international watercourses. As of this writing, Syria has concluded two international watercourse agreements with

Lebanon (Kabir and Orontes Rivers) and some bilateral agreements with the riparian states along the Euphrates and Tigris Rivers.

The average internal renewable water resources in Syria are approximately 9 billion cubic meters per year, of which 5 billion cubic meters are groundwater. Adding Syria's share from the Euphrates River of 6.6 billion cubic meters per year results in total annual renewable water resources of approximately 15 billion cubic meters. Between 1992 and 2003, annual water use exceeded these total renewable water resources by 14 percent. Irrigated agriculture accounts for more than 90 percent of water use. Only 8 percent is used for domestic purposes; 2 percent is used for industrial, commercial, and tourist purposes (BMZ 2004). Per capita drinking water consumption ranges between 82 liters per day in rural areas and 176 liters per day in urban areas (SPC 2005).

Falling groundwater levels in various regions are evidence of groundwater depletion. The main cause is the extraction of groundwater for irrigation. In the 2001–02 season, groundwater use in agriculture exceeded 150 percent of renewable resources (SPC 2005). The political, economic, and social context of the region necessitates a policy of food self-sufficiency which distorts crop prices and the cost of irrigation water supply to farmers. In addition, the use of unlicensed wells is widespread. As a consequence, agricultural production is not geared toward efficient use of water.

Pressure on water resources is expected to increase further due to the country's rapid population growth and the political and economic importance of agriculture, as well as increasing tourism and industrial development.

Water shortages are exacerbated by poor water quality, particularly in those areas hosting heavy economic activities (for example, parts of Utaibah east of Damascus). Surface and groundwater pollution by pathogens, nitrates, biological oxygen demand, ammonia, or heavy metals is evident in some water basins due to the lack of appropriate wastewater collection and treatment as well as to leaching of agricultural chemicals (GTZ, KfW, and BGR 2004). This pollution hampers the hygienically safe drinking water supply in both urban and rural areas. Furthermore, contaminated river water is heavily used for irrigation purposes, which poses a major health hazard to consumers of irrigated vegetables.

Land Degradation

Degradation and desertification are important forms of land transformation; both are among Syria's most critical environmental issues. As much as one-half of Syria's total land area consists of grazing pastures, and one-third of agricultural lands. Taking into account the unreliability of rainfall and droughts, those soil types that are already vulnerable to degradation and unsustainable land use practices are particularly susceptible to degradation and desertification. Changes in land use and surface areas in Syria are listed in table 3.10.

Land degradation is caused by wind and water erosion, soil salinity, and sand accumulation. In turn, **wind erosion** is caused by the removal of natural plant cover by cultivation, deforestation, and overgrazing. The impact of wind erosion has led to the decline in agricultural productivity of irrigated lands in the Euphrates Valley and sand accumulation in low precipitation areas in the northeastern regions of Syria. **Water erosion** has caused soil losses, especially on steep slopes where poor plowing and tilling techniques are practiced. This is most common on coastal slopes exceeding 12 percent in inclination, where it is estimated that about 20 tons of soil per hectare are being lost every year. **Soil salinity** in irrigated lands is most pronounced in the Euphrates Valley due to the use

Table 3.10

Changes in Land Use in Syria between 1994 and 2003

Type of land use	Surface area in thousand hectares		Percentage of total land area in Syria (2003)
	1994	2003	
Agricultural—irrigated	1,082	1,361	7.3
Agricultural—rain fed	3,787	3,300	17.8
Agricultural—unexploited	484	385	2.1
Agricultural—to be cultivated in following cycles	618	818	4.4
Forests	487	590	3.2
Grazing lands	8,299	8,335	45.0
Urbanized areas	606	636	3.4
Lakes	138	159	0.9
Sandy or rocky lands	3,017	2,935	15.9

Source: MAAR 2006.

of flood irrigation techniques: it is estimated that 72 percent of cultivated lands face an acute level of salinity (MAAR 2006). This problem is also common to the west of Syria in the Al Ghab Valley.

Land degradation is also caused by the uncontrolled growth of informal settlements around major city centers due to poor regional and economic planning (MSEA 2006). For example, the city of Damascus, which is situated in the middle of rich agricultural lands, lost over 8,000 hectares between 1994 and 2003. These constitute about 20 percent of the total land suitable for agriculture surrounding Damascus (Ghota area).

The immediate impacts of land degradation are manifested in the loss of agricultural and grazing lands. According to data published by the MAAR (2006), about 17 percent of Syria's agricultural lands have undergone degradation, and 25 percent of the Badia region grazing lands have been lost due to the growth of plant species of less nutritional value to grazing herds, in contrast with the natural vegetative cover. In the long term, land degradation poses a serious threat to ecosystem functioning, biodiversity, household food security, and rural livelihoods—particularly since 46 percent of the population living in rural areas depends on livelihoods derived from the natural resource base (Central Bureau for Statistics 2008). Global climate change (discussed above) threatens to worsen desertification in some parts of the country, making it even more difficult to feed a rapidly growing population.

Persistent Organic Pollutants

POPs are chemical substances that are toxic, persist in the environment for long periods, and bioaccumulate as they move up the food chain. POPs pose risks to both human health and the environment. Evidence of long-range transportation of these substances to regions where they have never been used or produced, as well as the threats they pose to the environment of the Earth as a whole, have spurred the international community to call for urgent global actions to reduce and eliminate releases of these chemicals.

A national inventory of POPs in Syria and their registration status was established in 2008; this is summarized in table 3.11.

To control the impacts of POPs and pesticides, the Syrian government has banned the importation of

Table 3.11

Status of POPs in Syria, 2008

Compound	Inventory and registration status
Aldrin	Withdrawn, 1990; remaining stocks (7,500 kg) quarantined by MAAR
Chlordane	Withdrawn, 1990; none available in stock
DDT	Withdrawn, 1976; banned completely, 1978; remaining stocks (1,500 kg) quarantined by MAAR
Dieldrin	Withdrawn, 1990; none available in stock
Endrin	Withdrawn, 1990; none available in stock
Heptachlor	Not used in Syria
Hexachlorobenzene	Not used in Syria
Lindane	Withdrawn, 1982; remaining stocks (217 tons) quarantined by MAAR
Mirex	Withdrawn, 1999; none available in stock
PCB	91 transformers contain 1,384.3 tons of oil with PCB compounds; 225 large transformers suspected of containing 2,392.3 tons of PCB compounds
Toxaphene	Withdrawn, 1999; none available in stock
Polychlorinated dibenzo-dioxin/ polychlorinated dibenzo-furan	Total dioxin-furan emissions estimated at 623 g toxic equivalent per year

Source: NIP 2008.

pesticides that are classified as POPs and required that all transformers not contain oils with PCB compounds (NIP 2008). In addition, efforts are being made to ban open-air burning of wastes.

Several industrial activities in Syria were identified as potential sources of polychlorinated dibenzo-p-dioxins, dibenzofurans, and hexachlorobenzene: waste incineration (municipal and industrial), thermal processes in the metallurgical and energy industries, production of construction materials, transport, uncontrolled burning, production of chemicals, and waste disposal.

Priority actions for POPs in Syria include the following, as established by the country's NIP:

1. Soliciting financial aid to dispose of POPs
2. Developing special legislation to manage POPs
3. Creating the necessary infrastructure to manage POPs
4. Conducting the necessary studies for POPs
5. Identifying POPs hotspots
6. Implementing good management practices for POPs
7. Building capacity to control and manage POPs
8. Raising awareness of the dangers and risks of POPs

3.3 Environmental Legal, Institutional, and Policy Framework

Syria was the first Arab country to establish an independent environment ministry (in 1992) and to incorporate environmental aspects into development planning. Nationally, environmental issues are dealt with at three levels. At the first level, an interministerial body, the Council for the Protection of the Environment and Sustainable Development, is responsible for setting national policy and coordinating environmental management activities. The council is headed by the prime minister. At the second level, the MSEA plays a regulatory and coordinative role in collaboration

with related ministries. At the third level, local directorates in the governorates enforce environmental regulations.

In 2002, Parliament ratified an environment law, which sets out the responsibilities and authorities of the GCEA. Since then, the council has issued a number of directives for pollution control in different environmental media. Legislation was also enacted in the fields of agriculture, water and irrigation, and waste management to support implementation of the environment law.

National Sustainable Development Framework

In 2001, the MSEA, in collaboration with other relevant ministries, adopted the Syrian NEAP, which proposes several action subplans and programs leading to overall sustainable development in Syria.

The Syrian NEAP is considered one of the major results produced through the implementation of the "National Project for Strengthening the Capacity of Environmental Affairs in Syria," an initiative financed by UNDP and the Capacity 21 program and implemented under the supervision of the World Bank. The NEAP's aim is to integrate national development plans with environmental management. The overall goals are to contribute to the protection of the health of the Syrian population, manage scarce materials and cultural resources in a rational and cost-effective manner, and allow economic growth to continue unimpeded by environmental degradation. The NEAP actions target five priority areas in Syria, which were identified through a broad consultation exercise supported by a thorough technical study:

- Prevent exploitation of land and water resources
- Improve living quality in urban areas
- Reduce effects of pollution on human health
- Protect natural and cultural resources
- Build capacity, educate, and raise awareness of the general population

As currently amended, the NEAP aims at achieving sustainable development. According to the Syrian National Strategy Report for Sustainable Development which was presented to the 2002 World Summit on Sustainable Development (MSEA 2002), goals for sustainable development in Syria address

- poverty eradication;
- population growth and distribution;
- education, capacity building, and research;
- food and water security;
- land degradation and desertification;
- transfer of technology;
- globalization;
- trade and patterns of consumption;
- cultural heritage.

Efforts to promote sustainable social and economic development are supplemented by an action plan to restore and protect from further degradation and depletion those natural resources on which the poor most depend. This makes measures for adaptation to the negative effects of climate change—and specifically for halting desertification, land degradation, and pollution—of central importance. The Syrian National Strategy Report for Sustainable Development does provide a prioritized plan addressing the five priority areas of the NEAP, against which the relevance of the GEF portfolio can be assessed.

The Five-Year Development Plans (1995–2010)

Socioeconomic development in Syria is centralized and governed by five-year plans administered by the State Planning Commission, a government agency directly affiliated with the Council of

Ministers in the prime minister's office. Since the GEF was initiated in the country, Syria has ratified three five-year plans: the 8th five-year plan (1996–2000); the 9th five-year plan (2001–05); and the 10th five-year plan (2006–10), which is currently being implemented.

The 10th five-year social and economic development plan was ratified by Parliament in 2006. The plan is laid out in accordance with current economic and social trends toward a social market economy system. It emphasizes production efficiency and sustainable economic growth on the one hand, and fair income distribution and improvement of underprivileged segments of the population on the other. The plan sets the future vision for Syria during the next two decades aiming "to provide a proper enabling environment for the Syrian Society, and to bring about economic, social, political, and technological advancement and prosperity." Concerning the environmental sector, the plan envisages

> …the improvement of the quality of life and environmental performance; change of production and consumption patterns; conservation of natural resources; incorporating of the principles of sustainability in investment planning and utilization of natural resources through the shared responsibility of the State, the private sector and civil society (SPC 2006).

The general objectives of the plan in the environmental sector are as follows:

- Formulate overall national policies to alleviate the various forms of pollution, combat desertification, enrich biodiversity, and introduce sustainable resource planning.
- Implement sustainable rural development and encourage local environmental work.
- Create interactive planning and administrative partnerships among the environment, production, and service sectors to ensure the achievement of environmental protection and sustainable development.
- Raise the level of general environmental awareness; build institutional, individual, and organizational capacities in the environment sector; and contribute to the introduction of economic tools into environmental planning.

Specific plans and programs are elaborated for each objective, and government agencies are required to present their annual plans in line with these objectives.

The 9th five-year plan (SPC 2001) introduced the concepts of environmental protection, sustainable use of resources, and balancing environmental resources and population growth. In addition, it promoted the use of clean and renewable energies. Priority actions of relevance to GEF focal areas included the following:

- Promoting sustainable development and preserving natural and environmental resources
- Incorporating environmental aspects into development plans
- Limiting environmental degradation and desertification by adopting appropriate mitigation measures
- Improving agricultural productivity
- Implementing integrated water resource management and introducing modern irrigation techniques
- Protecting water resources, including springs, rivers, and lakes, from contamination
- Introducing a classification system for forests and establishing protected areas
- Promoting energy efficiency through projects such as the rehabilitation of the Banias power generation plant

- Building capacity and raising awareness in the environmental field

The 8th five-year plan (SPC 1996) addressed environmental issues relevant to GEF focal areas through its sectoral priority actions. These included the following:

- Protection of agricultural land from erosion and desertification
- Protection of forests
- Protection of fish stocks from overexploitation
- Protection of water resources

The Constitution and Key Cross-Cutting Policy

The Syrian **constitution** delineates the basic function of the state's government. Among other things, it determines Syria's character to be Arab, socialist, and republican. The constitution has undergone only minor changes since its adoption in 1973. According to Article 12,

> The State is at the people's service. Its establishments seek to protect the fundamental rights of the citizens and improve their lives. It also seeks to support the political organizations in order to bring about self-development.

It can be inferred from this that the state, through its establishments and political organizations, is expected to protect the rights of citizens for a healthy environment by preserving and securing the environmental and natural resources of the country.

The **principal relevant law** regulating environmental protection policies and activities in Syria is Environment Law No. 50, which was issued in 2002 and designates the GCEA as the law's principal implementer.[4] The law also sets out specific tasks and responsibilities for both the Environmental Protection Commission (established in 1985 by Prime Ministerial Decision No. 1239) and the Council for the Protection of the Environment and Sustainable Development (established by Decree No. 11 in 1991, which also created the GCEA).

The **Council for the Protection of the Environment and Sustainable Development** is headed by the prime minister with the membership of selected ministers. It is responsible for determining environmental policies and regulations, and has the authority to ban any activity that harms the environment. The **GCEA**, on the other hand, is a legal entity with financial and administrative autonomy, reporting directly to the MSEA minister.

Environment Law No. 50, Article 4, stipulates the basic rules of environmental safety and protection from pollution, and prescribes the basic tasks the GCEA is expected to undertake in this regard in cooperation and coordination with the relevant public entities. These tasks include

- addressing outstanding environmental problems,
- developing environmental protection policies,
- preparing national strategies and programs and plans for implementation,
- developing public awareness campaigns,
- preparing specifications and standards for environmental media,
- monitoring environmental media,
- developing environmental emergency management plans,
- administering a database of environmental information,
- coordinating with national authorities and regional and international organizations.

[4] The GCEA is now affiliated with the MSEA, which was created by Decree No. 25 on April 23, 2009.

The remainder of this section summarizes key policy and legislation in each of the GEF focal areas.

Biodiversity

In 1995, Syria became a party to the Convention on Biological Diversity, and, as a result, a comprehensive process to protect the country's biodiversity components was initiated. Syria subsequently prepared its National Biodiversity Country Study and National Strategy and Action Plan on Biodiversity. These two documents were distributed to all relevant ministries and institutions to put the plan under implementation. Syria prepared the first, second, and third national reports for the CBD in 2003, 2005, and 2007, respectively. The fourth national report is currently under preparation and is expected to be submitted in the second quarter of 2009. In addition to the National Strategy and Action Plan on Biodiversity, Syria developed the Categories of Protected Areas in Syria (2003) document, based on the IUCN categories and national legislation, and covering

- strict natural reserves/scientific research,
- wildlife reserves,
- man and biosphere reserves,
- national parks,
- marine and coastal reserves,
- protection (buffer) reserves,
- World Natural Heritage Sites,
- natural reserves of special importance.

The National Strategy and Action Plan on Biodiversity was informed by a range of integrated studies, and included the National Spatial Biodiversity Assessment. It presents a 20-year strategy for biodiversity conservation, which is further enabled legally through a national biodiversity framework in terms of the National Environmental Management Biodiversity Act, a draft of which was published in 2007.

The "Additional Enabling Activity Support for Participation in the Clearing-House Mechanism of the CBD" project (GEF ID 813), implemented through UNDP, also developed a biodiversity monitoring and review framework. The "Assessment of Capacity-Building Needs and Country-Specific Priorities in Biodiversity" enabling activity (GEF ID 987) provided the scientific basis for informing a range of legislative provisions for the protection of biodiversity, including regulations for threatened species and ecosystems. Other key relevant regulations in terms of the national biodiversity act include those on bioprospecting and benefit sharing, threatened and protected species, and invasive alien species. Regulations have also been published for the national categories of protected areas in Syria.

Syria has recently compiled a national protected areas expansion strategy, which will prioritize areas for inclusion into the national network of protected areas (table 3.12). Since 1995, more than 221,000 hectares have been declared protected areas (natural reserves). The MSEA has set a target of including at least 8 percent of terrestrial land and marine and coastal surface area as protected areas by 2013.

Biosafety

Syria became a party to the Cartagena Biosafety Protocol in 2004. Subsequently, it participated in a global enabling activity, implemented through the United Nations Environment Programme (UNEP), to strengthen national capacity for developing a regulatory biosafety framework for notifications and requests related to living modified organisms, and for establishing administrative systems to assist with screening notifications and requests, risk assessment, decision making, and feedback. However, because biotechnology is still a relatively new field with rapid and ongoing developments, Syria has not yet produced specific laws

Table 3.12

Formal Protected Areas and Main Biodiversity Biomes in Syria

Name	Area (hectares)	Location	Main biodiversity biome
Damnet Al-Souida	653	Al-Sweida	Degraded quercus forest
Jubbat Al-khashab	133	Al-Qunaitera	Forest
Dair Mar Mousa	—	Rural Damascus	Heritage site
Al-Lazab	19,000	Homs/rural Damascus	Degraded pisticia forest
Deir-Atiya	—	Rural Damascus	Degraded lands
Abou Qubies	11,000	Hama	Evergreen forest
Al Sha'ara- East	1,000	Tartous	Evergreen forest
Cedar – Fir	1,350	Lattakia	Cedar-abies forest
Ra'as Ibn Hane	1,000	Lattakia	Marine ecosystem
Um Al-Toyour	1,000	Lattakia	Pine forest; marine
Ras Al- Bassit	3,000	Lattakia	Brutia pine forest
Fronloq	1,500	Lattakia	Oak-pine forest
Al-Bassel Forest	2,000	Edleb	Forest
Sabkhat Al-Jabboul	10,000	Aleppo	Wetland
Al-Thawra Island	590	Rakka	Wetland
Jebel Abdul Aziz	49,000	Deir Ezzor	Degraded *pistacia atlantica* forest
Huwaijet Ayaash	—	Deir Ezzor	Forest and wetlands
Huwaijet Abu Hardoub	450	Deir Ezzor	Forest and wetlands
Jabal Al–Bala'as	34,365	Hama	Degraded *pistacia atlantica* forest
Jabal Abou Rojmen	60,000	Homs	Pisticia/mountain
Bald Ibis	1,000	Homs	Special protected area—reproductive habitat
Talila	22,000	Homs	Desert habitat
Al-Mouh Lake	—	Homs	Wetlands
Allajat	2,000	Alsouida	Degraded lands

Source: National biodiversity reports.
Note: — = not available.

that regulate biotechnology and biosafety. Active steps in this direction are under way in response to public concerns of importing foods and feeds containing genetically modified organisms. Important factors limiting the adoption of effective biosafety regulation include the confusion and lack of information about the nature of new advances in living modified organisms and how they were produced, and the lack of a national active strategy to promote biotechnology. For example, risk assessment of releasing living modified organisms into the environment cannot be easily conducted in Syria. The goal of the recently completed global enabling activity "Building Capacity for Effective Participation in the Biosafety Clearing-House" (GEF ID 2128), implemented through UNEP, is to facilitate the exchange of scientific, technical, environmental, and legal information on, and experience with, living modified organisms and to assist Syria in accessing the relevant information so as to develop and adopt national legislation to regulate biotechnology and biosafety.

Environmental Legislation

Two articles in Environment Law No. 50 refer directly to biological diversity and protected areas; the other articles contribute indirectly to biodiversity conservation. Based on these provisions, the terms and conditions for establishing natural reserves in Syria were adopted by the Council for the Protection of the Environment and Sustainable Development in October 2003.

The main government agencies responsible for biodiversity resource conservation in Syria are the MSEA, the MAAR, and the Ministry of Irrigation.

- The **MSEA** coordinates with national authorities and regional and international organizations concerned with biodiversity conservation by carrying out activities that aim at establishing protected areas, or any other activities that support biodiversity conservation, and by monitoring protected areas and evaluating their status as well as ongoing development.
- The **MAAR** establishes, develops, and manages the terrestrial protected areas through its appointed staff in governorate directorates.
- The **Ministry of Irrigation** supervises the management, protection, and consumption of water resources (rivers, dams, natural and artificial lakes, and mires) through its departments. It is also responsible for wetlands protection.

Following is a list of the laws, presidential decrees, and ministerial decisions of most relevance to biodiversity conservation.

- **Forest protection:** Law for Forest Rangers No. 86 (1953) and its amendments in Decree 82 (1962) and Decree 870 (1969) addressing forest protection; Forests Law No. 7 (1994), which was replaced by Law 25 (2007)
- **Aquatic life protection:** Law No. 30 for protection of aquatic life (1964); Law No. 152 on the banning of fishing with large nets (1967); Decision 460 (1965) to manage fishing activities in seawater; Decision 461 (1965) to manage fishing activities in freshwater
- **Protection of the Badia ecosystem:** Law No. 140 for protection of Badia (1970), amended by Law No. 13 (1973)
- **Hunting:** Law No. 152 for land hunting (1970); this law is being updated
- **Protection of animal resources:** Law No. 237 (1960) to manage quarantine activities; Law No. 87 (1979) to protect animal resources from diseases; Decision No. 60 for 1988 which organizes processes for importation of animals to Syria
- **Genetic flora protection:** Ministerial Decision No. 63 (1970), which specifies means for trade in plants and their components and fertilizers and pesticides
- **Biosafety:** No specific laws have yet been developed that regulate biotechnology and biosafety, although steps are being taken in this direction

Climate Change and Energy Policy

Initial National Communication

The first national GHG studies were launched in 1998 when the Environmental Research Center prepared a national study on climate change in Syria that aimed at assessing GHG inventories and sinks for 1990 and 1994. The study looked to develop a baseline scenario of GHG emissions and to suggest and estimate technical and non-technical options for GHG emissions reduction. Currently, the INC on GHG emissions is being prepared by the MSEA with assistance from a global enabling activity implemented through UNDP. The project's implementation strategy includes preparing a national GHG inventory, analyzing potential measures to mitigate

increases in GHGs, analyzing the potential impacts of climatic changes in Syria, implementing adaptive measures, and presenting the INC to the UNFCCC.

Renewable Energy Policy

Very few policies in Syria specifically cover renewable energy. Projects in this area mostly rely on guidance provided in Investment Promotion Law No. 8 of 2007, which governs capital investments in development projects by all parties, whether resident, nonresident, Syrian, or foreign, and applies to approved economic and social development projects in energy, industry, transport, or any other sector the Supreme Investment Council deems within the scope of the law.

The objective of Syrian renewable energy strategies is to ensure an increasing contribution of renewable energy applications to meet Syria's primary energy demand. The aim is to decrease dependence on hydrocarbon energy sources and promote environmentally sound and sustainable development. Efforts were made by the Syrian government and the industrial sector to use renewable energy sources in the past. These initiatives had no significant impact on the country's energy scenario partly because they were undertaken in an uncoordinated manner and lacked sufficient planning. The government now recognizes that for renewable energy resources to play a greater role, a planned and coordinated approach is required; this is codified in the 10th five-year plan. Strategies for renewable energies set at the national level in the five-year plan for 2006–10 include the following:

- Obtain the maximum advantage from renewable energy sources in Syria such as hydropower and wind energy, along with solar thermal energy applications and any other renewable energy sources available.
- Contribute photovoltaic and wind energy in electricity produced into the grid to reduce the oil and gas used for that purpose.
- Allocate renewable energy needs according to area requirements; for example, use wind energy in electricity supply for regions with a suitable average wind speed, or use biomass energy for thermal purposes in rural areas.
- Provide government incentives for using renewable energy applications, such as solar thermal energy in the residential sector, and for manufacturing wind turbines, photovoltaic cells, and solar thermal sets.

Renewable Energies Master Plan

The Ministry of Electricity, in cooperation with the United Nations Department of Economic and Social Affairs, launched a master plan for the development of renewable energy use in 2002; it is currently updating this plan with GTZ assistance. The plan delineates subplans to be carried out in order to provide a major boost to renewable energy development in Syria. Recommended program initiatives include specific plans to be taken up for mainstreaming renewable energy in the national energy mix; and research, development, and demonstration projects for technology development. Pilot projects for technology demonstration as well as investment-worthy projects covering different forms of renewable energy have also been identified based on national-level consultations and extensive analytical work.

The National Renewable Energy Master Plan consists of a set of actionable recommendations and proposals for renewable energy systems development and accompanying measures to facilitate this development. The master plan proposals assume

- a 10-year implementation period from 2002 to 2011;

- that the development of energy systems contributes to meeting the primary energy demand in the country and would reduce dependence on hydrocarbon sources such as gas-based electricity, gasoline generators, diesel heaters, and butane lamps;
- facilitating measures including the establishment of institutions, the conduct of studies and surveys, and training and capacity-building efforts;
- government commitment resulting in adequate resource allocation and establishment of an enabling institutional framework.

The Syrian Institutional and Regulatory Framework for Implementation of the CDM

The **Clean Development Mechanism (CDM)** is an arrangement under the Kyoto Protocol allowing industrialized countries with a GHG reduction commitment (called Annex B countries) to invest in projects that reduce emissions in developing countries as an alternative to more expensive emissions reductions in their own countries. Recognizing the importance of the Kyoto Protocol in GHG reduction, Syria certified the protocol in mid-2005. The sustainable development criteria for CDM projects in Syria include the following:

1. Conformity to political and legal dispositions
2. Contribution to
   - technology autonomy
   - sustainable use of natural resources
   - social criteria (improve quality of life and equity, alleviate poverty)
   - economic criteria (provide financial returns to local entities, transfer of new technology)
   - environmental criteria (mitigation of global climate change, reduce GHGs, conserve local resources)

The GCEA is the official focal point for climate change activities in Syria; since 2003, it has also served as Syria's designated national authority for the CDM. In this latter capacity, its main tasks are to provide written approval to project participants and, in case of a host party, confirm in writing that the CDM project activity assists it in achieving sustainable development. Syria currently has four CDM projects: two in municipal solid waste disposal (in Homs and Aleppo), one related to the reuse of gaseous effluents at the Banias refinery, and one in a fertilizer plant near Homs.

Legal Framework for GHGs

The legal framework for GHGs in Syria is provided by Environmental Law No. 2 (2005) which addresses the emission of air pollutants including GHGs. Other relevant legislation includes Energy Conservation Law No. 3, which was issued in February 2009 and developed in coordination with the National Energy Research Centre, which was created in 2003 to carry out energy efficiency and renewable energy research and development in Syria. At the national level, the legislative framework

- sets forth legal actions and activities related to energy conservation issues,
- aims to replace unsustainable patterns of energy production and consumption,
- establishes energy efficiency procedures in all sectors,
- increases the availability of national existing fossil fuel resources and reserves,
- seeks to reduce GHGs,
- engages public participation.
- works to develop national abilities and raise general awareness about the use of renewable energy for sustainable development and environmental protection.

The Energy Conservation Law obligates all engineering offices that design and construct new buildings or structures to install solar water heating systems with identified incentives. The law also includes a list of governmental incentives for renewable energy use projects and actions to encourage people, organizations, and manufacturers to adopt renewable energy use precepts.

Efficiency Standards for Consumption of Electrical Energy in the Domestic, Service, and Commercial Sectors Law No. 18, enacted in October 2008 is also pertinent to GHG emissions. The law aims to improve the energy efficiency of electrical equipment so as to reduce national energy consumption and make national manufacturers of electrical appliances more competitive in the world market.

The National Energy Research Centre was also involved in preparing the first version of Syria's Building Thermal Insulation Code in 2006. The code aims to improve thermal efficiency in buildings and reduce the amount of traditional energy used in cooling and heating systems. A prime ministerial decision was issued in November 2007 mandating all public and private enterprises to incorporate code requirements in building designs to be included in the permitting process of all structures effective January 1, 2008.

International Waters

Marine Resources

The most pertinent piece of legislation for marine resources in Syria is Marine Environment Protection from Pollution Law No. 9 (2006), which aims to prevent and combat oil pollution and waste dumping from ships or shore installations, and sets regulations for storing and handling dangerous goods by both ships and ports. The law refers to the framework stipulations and provisions of Environment Law No. 50, the International Convention for the Prevention of Pollution from Ships, the Barcelona Convention and its protocols, and the International Maritime Dangerous Goods Code.

The Public Directorate of Seaports in the Ministry of Transport is the principal Syrian government authority involved in the monitoring of ships' activities affecting seawater quality. The Directorate for the Coastal Basin within the Ministry of Irrigation is mandated by Water Law No. 31 (2005) to monitor pollution of river discharges to coastal seawater. The GCEA is mandated by Environment Law No. 51 (2002) to monitor seawater quality. Accordingly, in 2003, a monitoring and environmental quality reporting system was established based on the monitoring agreement signed between the Programme for the Assessment and Control of Pollution in the Mediterranean region and the Syrian government. The objective is to meet the GCEA's mandate for promoting integrated coastal zone management, marine pollution control and sustainable use, and conservation of marine living resources while helping create a database of parameters on the Mediterranean seawater quality from all riparian countries. Five laboratories were accredited, capacity-building programs were conducted for laboratory personnel, and testing equipment was provided. To date, the GCEA has established a regular bacteriological monitoring program for bathing waters, conducted laboratory analyses for heavy metals in sea sediments, and tested for nutrients in coastal river waters. Extensive tests were also performed in four hotspots, and all test results were submitted to the Programme for the Assessment and Control of Pollution in the Mediterranean region secretariat for incorporation in its database.

Following the ratification of the Barcelona Convention and the Land-Based Sources of Pollution Protocol, the GCEA prepared in 2006 a National

Action Plan for Protection of the Mediterranean Sea from land-based sources of pollutants and activities. The plan, which was approved by the Syrian government in 2008, addresses priority issues identified by key stakeholders for reducing the discharge of pollutants from land-based sources and activities to the Mediterranean Sea. The plan incorporates three categories of measures:

- Specific measures for promoting sustainable use of coastal and marine resources including best available techniques, best environmental practice, and clean technologies
- Requirements and incentives to encourage compliance including economic instruments, regulatory measures, capacity building, and public awareness
- Institutional arrangements with the relevant authorities and resources necessary for carrying out management tasks associated with the strategies and program

Measures included in the action plan cover five sectors:

- Municipal sewage
- Municipal solid waste
- Industrial solid wastes and aqueous effluents
- Hazardous wastes of particular interest to the Strategic Action Programme for the Mediterranean Sea
- Air emissions from urban and industrial sources

Concrete projects are outlined in the national plan and prioritized within the context of a realistic and politically acceptable financial strategy. The total cost for the identified projects in the four hotspots on the Syrian coastline is about $110 million. The Syrian government is actively seeking donor support to implement these projects and has incorporated some of them into its 10th five-year development plan.

Inland Water Resources

Syria has water rights agreements with its neighboring countries of Iraq, Jordan, Lebanon, and Turkey. These agreements specify water shares and include provisions for coordination and joint water resource management. The stipulations of these agreements are summarized in table 3.13. Syria recognizes the importance of reaching equitable long-term water rights' agreements with its neighbors—particularly with Turkey, since the Euphrates and Tigris Rivers constitute 85 percent of Syria's surface water resources that originate in Turkey. To this end, Syria, Iraq, and Turkey recently agreed to establish a joint center for the integrated management of water resources of the two rivers, in conjunction with the future planning of joint water infrastructure and irrigation projects.

Environment Law No. 50, Article 22, stipulates that "Authorities, in cooperation, coordination and participation with the competent authorities, shall protect [the] environment from pollution…related to water, air, soil and plant and animal creatures and [the] maritime environment." Water Law No. 31 (2005) and its executive orders provide specific stipulations for coordinating the efforts of the ministries responsible for irrigation and the environment in monitoring the pollution of public waters countrywide, including lakes, rivers, and groundwater.

The 10th five-year plan identifies the Syrian water sector as one of the key sectors targeted for fundamental reform at the national level. The plan specifies that by 2020 the population should be provided with access to sustainable and safe drinking water, sustainable management of water resources, and integrated planning for

Table 3.13

Bilateral Water-Sharing Agreements between Syria and Its Neighbors

Country	Agreement			Type of joint water infrastructure project
	River	Date	Syria's water rights	
Turkey	Euphrates	1987	500 cubic meters/second (Syria's share of Euphrates River is 6.627 billion cubic meters of water)	A joint technical committee has been formed that will exchange information and conduct water measurements and land surveys in preparation for joint projects
Iraq	Euphrates	1989	Syria's share of Euphrates River entering at the Turkish border is 42% (58% for Iraq)	
Iraq	Tigris	2002	Syria's share of Tigris River is 1.25 billion cubic meters of water	
Jordan	Yarmouk	1953	Agreement specifies joint management of water resources for the benefit of both countries	In 1987, Syria and Jordan agreed to construct a dam on the river, with the water to be used mainly for drinking purposes for the city of Amman
Lebanon	Orontes	1994	Syria's share of the 404 million cubic meters of river water is 80% (20% for Lebanon)	In 2005, Syria and Lebanon agreed to construct a dam on the river on the Lebanese side
Lebanon	Kabeer Al Junoubi	2005	Syria's share of Kabeer Junoubi River is 60% (40% for Lebanon)	In 2005, Syria and Lebanon agreed to construct a dam on the river bordering both countries

Source: Data from the Ministry of Irrigation.

water sharing among all water users. A number of national laws and decrees are already in place to support achievement of this vision. These include Law No. 165 (1958), which coordinates the drilling of water wells and provides the principal mandate for water resource management to the Ministry of Irrigation; Decree No. 2145 (1971), which stipulates general provisions for protecting water resources from contamination; and Law No. 10 (1972), which deals with water resource pollution prevention.

Land Degradation

Environment Law No. 50 in Article 4, Clause 16, which stipulates that "Authorities shall study reasons [for] soil erosion and desertification and propose appropriate solutions thereto," offers the most direct reference to combating desertification and soil degradation within the national legal framework. Other national laws and decrees indirectly lead to natural resource conservation against degradation subject to the type of resources they aim to preserve; among these, for example, is Law No. 25 (2007) for the protection of forests.

In January 1994, Syria signed the UNCCD, which it ratified in 1997. As required by the convention, the Syrian government, in close collaboration with the Arab Organization for Agricultural Development, prepared in 1995 a National Action Plan for Combating Desertification. The plan, which was ratified by the Council for the Protection of the Environment and Sustainable Development in 2002, advocated the following priorities:

- The rational use and conservation of natural resources by
  - expanding the integrated rural development programme into the Badia region,
  - monitoring water erosion in coastal areas,
  - sustainable land management of river basins
- Involving the population/target groups in designing and implementing development programs and in decision making

- Empowering the local population to plan and lead actions to improve their livelihoods while sustaining their resource heritage
- Adopting an integrated and holistic approach to achieve economic development and alleviate poverty

Two committees were instituted to implement the National Action Programme; these included relevant stakeholders and representatives of NGOs, UNDP, international organizations such as the Arab Center for the Studies of Arid Zones and Dry Lands, the International Center for Agricultural Research in the Dry Areas, the Arab Organization for Agricultural Development, and research centers.

POPs

Syria ratified the Stockholm Convention on Persistent Organic Pollutants in 2002, which came into force in 2005. Syria completed its NIP in 2008, as required under Article E of the convention; this entailed three main activities: undertaking a baseline study, developing a strategy for mitigating emissions, and preparing an accompanying implementation framework.

Key national legislation dealing directly or indirectly with hazardous chemical management includes Environmental Law No. 2 (2005) and Law No. 49 (2004) which deals with cleanliness and beautification of cities, particularly Sections 3, 4, and 5 which address disposal of industrial, toxic, hazardous, and health care wastes. Other relevant legal instruments include ministerial decisions by the MAAR in relation to trading agricultural pesticides (2006), licensing of companies importing pesticides (2004), banning importation of some pesticides (1990), and acceptance criteria for pesticides (2003), in addition to a decision by the Ministry of Electricity in 1989 banning the importation of transformers containing PCBs.

Relevant International Treaties and Protocols

Table 3.14 lists the key conventions and agreements Syria has signed and ratified.

3.4 The GEF and the Syria Focal Point Mechanism

The GEF provides financial support to achieve global environmental benefits in biodiversity, climate change, international waters, land degradation, and POPs according to the respective international agreements.

GEF activities are implemented in partnership with one or more of the GEF Agencies—the World Bank, UNDP, UNEP, regional banks, FAO, IFAD, and the United Nations Industrial Development Organization—and national and regional governments, and civil society institutions. GEF Agencies have direct access to GEF funding through a memorandum of understanding with the GEF. Syria is not a member of any of the regional banks with direct access to GEF funding.

GEF support modalities include the following:

- **FSPs:** funding of more than $1 million
- **MSPs:** funding of less than $1 million
- **Small grants:** funding of less than $50,000, directed to NGOs and local organizations; these are provided through the SGP, which is administered by UNDP
- **Enabling activities:** these are intended to help countries meet their obligations under the various conventions the GEF services
- **Project preparation grants:** these grants, formerly known as project development facility (PDF) grants, provide funding for the preparation and development of projects

Table 3.14

International Conventions Ratified by the Government of Syria by Focal Area and Year of Ratification

Focal area	Convention	Year ratified
BD	Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean	1993
	Amendments of the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean	1995
	UN Convention on Biological Diversity	1996
	Convention on Wetlands of International Importance Especially as Waterfowl Habitat, as amended by the 1982 Paris Protocol and the 1987 Amendments (Ramsar Convention; 1971)	1998
	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area	2001
	African-Eurasian Migratory Water-Birds Agreement	2002
	Convention on the Conservation of Migratory Species of Wild Animals	2003
	Convention on International Trade in Endangered Species of Wild Fauna and Flora	2003
	Cartagena Biosafety Protocol	2004
CC	United Nations Framework Convention on Climate Change	1996 [a]
	Kyoto Protocol	2005
IW	Convention on the Law of Non-Navigational Uses of International Watercourses	1998
	Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its amendments	Convention 1978; amendment 2003
	International Convention for the Safety of Life at Sea (1974)	2001
	International Convention on Standards of Training, Certification and Watch-keeping for Seafarers (1978)	2001
	International Convention on Salvage (1989)	2002
	International Convention on Oil Pollution Preparedness, Response and Cooperation, and the 2000 Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances	Convention 2003; protocol 2005
	Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (1995)	2003
	International Convention on Civil Liability for Oil Pollution Damage (1992)	2005
	International Convention for the Control and Management of Ships Ballast Water and Sediments	2005
	International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances at Sea (1996)	2007
	Protocol for the Protection and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, as amended in 1995	2008
	Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (2002)	2008
	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities, as amended in 1996	2008
LD	United Nations Convention to Combat Desertification	1997
POPs	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	1992
	Stockholm Convention on Persistent Organic Pollutants	2003
	Rotterdam Convention on Prior Informed Consent	2002

Source: GCEA.
Note: BD = biodiversity; CC = climate change; IW = international waters; LD = land degradation.
a. Syria signed the UNFCCC in 1995 and ratified it as a non-Annex 1 country in 1996.

The GEF officially began with a three-year pilot phase from 1991 to 1994. This was followed by three regular four-year replenishment periods: GEF-1 (1994–98), GEF-2 (1998–2002), and GEF-3 (2002–06). In July 2006, GEF-4 was initiated and will continue until 2010. Through GEF-3, allocations were not made by country. Eligible GEF member countries submitted their requests to the various windows through the different GEF Agencies on a demand basis. Starting in July 2006 the GEF Council approved the RAF, a system for allocating GEF resources to recipient countries for the biodiversity and climate change focal areas, to be implemented in GEF-4. Allocations are made individually (country allocation) or to a group of countries (group allocation), depending on the index assigned to each country based on its potential biodiversity and climate change global benefit and country performance.

Funding allocations during GEF-4 for the international waters, land degradation, POPs, and ozone focal areas are not subject to the RAF and function on a demand basis.

Under the RAF, Syria received a group allocation for biodiversity with a GEF Benefits Index for Biodiversity of 0.1 percent and a maximum potential GEF funding of $3.2 million and a country allocation of $4.9 million for climate change with a GEF Benefits Index of 0.3 percent. Based on these RAF indexes, Syria is receiving an allocation similar to that of many other developing countries and potentially more than the funding received historically in any of the previous phases of the GEF.

The GEF guidelines indicate that each country should designate two GEF **focal points**, one operational and one political. There is no requirement that these roles be filled by either one or two persons; this decision is left to each country. In Syria, both roles are assigned to the deputy minister of state for environmental affairs, who also coordinates international projects assigned to his ministry and bilateral agreements with other donors and international agencies. This role has remained unchanged since the GEF initiated projects in Syria. To date, no national GEF committee has been formed in Syria, as is the case in other countries. The GEF focal point carries out project-related consultations with convention focal points and with the SGP steering committee and relevant national executing agencies. This consultation process leads to recommendations regarding where GEF resources should be allocated.

The MSEA is the primary executing agency for GEF projects in Syria, with branch directorates in all Syrian governorates. The ministry oversees the work of the GCEA, which consists of a number of environmental directorates (water safety, air pollution, climate change, land safety, biodiversity, chemical safety, and so forth). The MSEA and the GCEA assume the responsibilities of the focal points for relevant international conventions in the GEF focal areas (for example, the CBD, the UNCCD, the UNFCCC, and the Stockholm Convention).

4. The GEF Portfolio in Syria

This chapter presents an overview of GEF support to Syria in terms of financial resources provided and number of projects, discussed by type of project, GEF focal area, GEF Agency and/or national executing agency, and GEF phase.

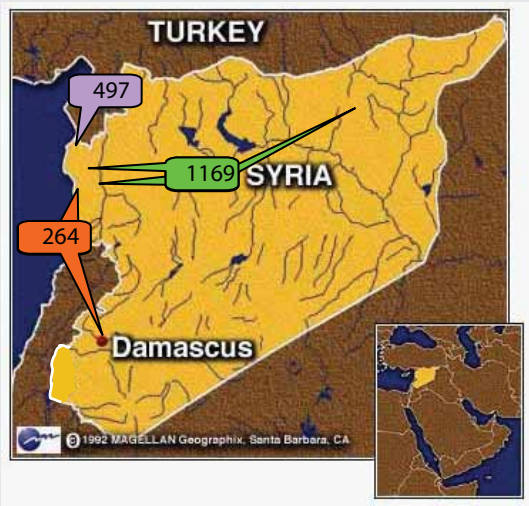
4.1 Projects in the GEF Syrian National Portfolio

National projects vary from small investments for an enabling activity to large full-size projects. Syria has received about $12.7 million in GEF support to national projects (including support for preparation of projects that were canceled or are in the pipeline) and for the Small Grants Programme. National project locations are shown in figure 4.1, and a summary of project information is provided in table 4.1. The main objectives of GEF-supported activities in Syria by focal area and modality are presented in table 4.2.

Syria's first GEF FSP was "Supply-Side Efficiency and Energy Conservation and Planning" (GEF ID 264), a project in the climate change focal area which was approved in January 1997 (GEF-1) with GEF funding of $4.61 million. It was implemented through UNDP and cofinanced with $25.1 million by the Ministry of Electricity,[1] the national executing agency, $0.505 million by UNDP, and $0.18 million by the Organization of the Petroleum Exporting Countries. To date, this has been the largest project funded by the GEF in Syria and accounts for over a third of total funding thus far. The only other national project approved in the GEF-1 phase (1995–98) was an enabling activity for the preparation of the "Biodiversity Strategy

Figure 4.1

Locations of National Projects



Note: Projects are indicated by GEF project number as per table 4.1.

[1] The Syrian government committed funds for converting the combustion processes for two of four power generation units from heavy fuel to natural gas. This commitment is in addition to the $25.1 million initial Syrian government contribution to the project.

Table 4.1

GEF Portfolio in Syria, 1994–2008

GEF ID	Project status	Project name	Focal area	GEF Agency	Modality	GEF grant	Total cofinancing	GEF phase
						Million $		
National projects								
264	Completed	Supply-Side Efficiency and Energy Conservation and Planning	CC	UNDP	FSP	4.61	25.79	GEF-1
419	Completed	Biodiversity Strategy and Action Plan and Report to the CBD	BD	UNDP	EA	0.19	0.04	GEF-1
497	Canceled with disbursement	Conservation of Biodiversity and Protected Areas Management	BD	WB	MSP	0.75	0.68	GEF-2
662	Canceled without disbursement	Increasing the Efficiency of the Hydrocarbon Sector by Using Waste Gas	CC	WB	MSP	0.75	1.10	GEF-2
813	Completed	Additional Enabling Activity Support for Participation in the Clearing-House Mechanism of the CBD	BD	UNDP	EA	0.01	0.00	GEF-2
987	Completed	Assessment of Capacity-Building Needs and Country-Specific Priorities in Biodiversity	BD	UNDP	EA	0.12	0.06	GEF-2
1169	Under implementation	Biodiversity Conservation and Protected Area Management	BD	UNDP	FSP	3.47	3.43	GEF-3
1832	Completed	Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Syria	POP	UNEP	EA	0.47	0.06	GEF-3
2230	Completed	National Capacity Self-Assessment for Global Environment Management	MF	UNDP	EA	0.20	0.03	GEF-3
2930	Not repipelined	Integrated Sustainable Land Management in the Eastern Region	LD	UNDP	FSP	7.50	10.58	n.a.
3678	PIF approved	Prevention and Disposal of POPs and Obsolete Pesticides in Syria	POP	FAO	MSP	0.98	1.61	GEF-4
n.a.	Ongoing	Small Grants Programme	MF	n.a.	FSP	1.15	1.16	GEF-3 & 4
Regional projects								
400	Completed	Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent	BD	UNDP	FSP	8.23	10.30	GEF-1
461	Completed	Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea	IW	UNEP	FSP	6.29	4.19	GEF-2
1028	CEO endorsed	Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway (Tranches 1 & 2)	BD	UNDP	FSP	10.24	15.60	GEF-3
2546	Council approved	Demonstration of Sustainable Alternatives to DDT and Strengthening of National Vector Control Capabilities in Middle East and North Africa	POP	UNEP	FSP	5.56	8.42	GEF-4
2600	CEO endorsed	Strategic Partnership for the Mediterranean Large Marine Ecosystem-Regional Component: Implementation of Agreed Actions for the Protection of the Environmental Resources of the Mediterranean Sea and Its Coastal Areas	MF	UNEP	FSP	13.59	29.61	GEF-4

Table 4.1

GEF Portfolio in Syria, 1994–2008

GEF ID	Project status	Project name	Focal area	GEF Agency	Modality	GEF grant	Total cofinancing	GEF phase
						Million $		
2601	Council approved	World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 1st Allocation	MF	WB	FSP	10.00	90.00	GEF-3
3229	Council approved	World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 2nd Installment	IW	WB	FSP	15.00	45.00	GEF-4
Global projects								
23	Completed	Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones	BD	UNEP	MSP	0.75	0.15	GEF-2
172	Completed	Biodiversity Country Studies – Phase I	BD	UNEP	EA	5.00	0.80	GEF-3
2128	Completed	Building Capacity for Effective Participation in the Biosafety Clearing-House	BD	UNEP	EA	0.05	0.02	GEF-3
2387	Under implementation	National Communications Programme for Climate Change (National Component) Enabling Activities for Preparation of Syria's Initial National Communication for UNFCCC	CC	UNDP	EA	0.41	0.07	GEF-3
2582	Completed	Development of the National Biosafety Framework for the Syrian Arab Republic	BD	UNEP	EA	0.16	0.08	GEF-3
3414	Under implementation	Support to GEF-Eligible CBD Parties for Carrying out 2010 Biodiversity Targets National Assessments – Phase I (National Component – 2010 Biodiversity Targets National Assessments)	BD	UNDP	EA/MSP	1.00	0.75	GEF-3

Note: BD = biodiversity; CC = climate change; EA = enabling activity; IW = international waters; LD = land degradation; MF = multifocal; n.a. = not applicable.

and Action Plan and Report to the CBD" (GEF ID 419); this was also implemented through UNDP.

In GEF-2 (1999–2002), a World Bank–implemented MSP, "Conservation of Biodiversity and Protected Areas Management" (GEF ID 497) received $0.75 million (although it was canceled later with disbursement of the GEF grant, but with no disbursements from UNDP and FAO), along with two enabling activities in the biodiversity focal area.

In GEF-3 (2003–06), an FSP, "Biodiversity Conservation and Protected Area Management" (GEF ID 1169) received GEF funding of $3.486 million and was implemented through UNDP. The project received $2.409 million in cofinancing from the MAAR, the national executing agency, and $1.025 million from UNDP. Two enabling activities were also financed in this phase; the first in the POPs focal area, and the second one (NCSA) a multifocal project addressing biodiversity, climate change, and land degradation.

Under the RAF in GEF-4, Syria participates in a group allocation for biodiversity (with a possible maximum of $3.2 million) and has received an individual country allocation for climate change of $4.9 million. Syria also received funding that has been used in preparing project identification forms (PIFs) (table 4.3). Total allocated amounts are also shown in table 4.3 for projects that have been cleared, but not yet approved as projects. These consist of an approved PIF for a project

Table 4.2

Main Objectives of GEF-Supported Activities in Syria by Focal Area and Modality

Focal area	FSP	MSP	Enabling activity	SGP
Biodiversity	• Demonstrating practical methods of protected area management that effectively conserve biodiversity and protect the interest of local communities • Promoting sustainable conservation and use of agrobiodiversity	• Strengthening legal and institutional capacity to protect and manage priority sites with high value for biodiversity of global importance • Promoting best practices for conservation and sustainable use of biodiversity of global significance in arid and semi-arid zones	• National Strategy and Action Plan on Biodiversity • Biodiversity country studies • Clearing-House Mechanism • National biosafety framework • Biosafety Clearing-House	Community-based conservation of international waters introduced and linked to enhanced livelihoods
Climate change	Reducing the growth of GHG emissions that result from electric power generation and inefficient consumption of carbon-based fuels		National Communications Programme for Climate Change	Mitigation and adaptation (biogas projects, national competitions for climate change mitigation and adaptation projects)
International waters	Improving the quality of the marine environment in the Mediterranean region by better shared management of land-based pollution			
Land degradation				Empowered and environmentally conscious civil society involved in formulating and implementing environmentally friendly local development plans
POPs			NIP	
Multifocal			NCSA	

Table 4.3

RAF Allocation and Use as of February 2009
million $

Allocation/use	Biodiversity	Climate change
GEF-4 indicative allocation	Group	4.95
Allocation used		
Grants	0	0.12
Agency fee	0	0.01
PIFs cleared by CEO, awaiting approval		
Proposed grant	0	0
Remaining to be programmed	Group	4.83

Source: GEF Country Profile: Syria, February 2009, www.thegef.org.

in the POPs focal area, "Prevention and Disposal of POPs and Obsolete Pesticides in Syria" (to be implemented through FAO), in addition to $3.6 million from the climate change RAF allocation that has been proposed for approval by the GEF Secretariat for a project titled "Energy Efficiency Building Code" (to be implemented through UNDP), and a PIF under development for "Implementation of the National Biosafety Framework" (to be implemented through UNEP), a subproject of a global FSP, the "GEF Biosafety Program."

4.2 Allocation by Focal Area

Biodiversity constitutes the largest focal area in terms of number of projects, accounting for 5 out of 11 national projects and 40 percent of total funding (table 4.4). Climate change comprises the largest in terms of financing, amounting to about 44 percent of national GEF funds and two projects (one completed on supply-side efficiency and one canceled without disbursement related to increasing the efficiency of the hydrocarbon sector by using waste gas). The POP and multifocal areas each include one enabling activity, with one POP MSP in the pipeline accounting for about 11 percent of total funding. Projects in land degradation have been funded only through the SGP so far; international waters projects are funded through regional and global approaches and are discussed in section 4.7.

4.3 Project Status

Over half of the funding allocated to Syria from 1994 to date is related to completed projects (table 4.5). One-third of the remaining funding is for projects that are ongoing, and about one-tenth is for projects that will begin implementation soon. Over half of the completed and ongoing projects are in the biodiversity focal area. Three out of six national projects have been canceled or not approved. The first project in the biodiversity focal area was canceled with disbursement; the second project in climate change was canceled without disbursement; the third project in land degradation was not repipelined. GEF funding for these three projects constituted 50 percent of total GEF funds for Syria, or about $9 million.

4.4 Allocation by GEF Agency

Table 4.6 shows GEF allocations by focal area and Agency. UNDP, UNEP, FAO, and the World Bank are the GEF Agencies present in Syria. IFAD and the United Nations Industrial Development Organization are the two GEF Agencies that, to date, have not handled any GEF projects in Syria.

Table 4.4

GEF Funding by Focal Area, 1994 through GEF-4

Focal area	Million $	% of total
Biodiversity	5.130	40
Climate change	5.548	44
Land degradation	0.249	2
POPs	1.444	11
Multifocal	0.346	3
Total	**12.717**	**100**

Note: Includes SGP projects.

Table 4.5

National Projects by Status and Focal Area
million $

Focal area	Completed	Ongoing	Pipeline	Total
Biodiversity	1.078	3.486	0	**5.130**
Climate change	5.360	0	0	**5.548**
Land degradation	0	0.249	0	**0.249**
POPs	0.469	0	0.975	**1.444**
Multifocal	0.200	0	0	**0.346**
Total	**7.107**	**4.635**	**0.975**	**12.717**
Percentage allocated	56	36	8	**100**

Note: Includes SGP projects.

Table 4.6

GEF Support to National Projects by Focal Area and Agency as of February 2009
million $

Focal area	UNDP	UNEP	World Bank	FAO	SGP
Climate change	4.610	0	0.750[a]	0	0.188
Biodiversity	3.814	0	0.750	0	0.516
Land degradation	0	0	0	0	0.249
POPs	0	0.469	0	0.975	0
Multifocal	0.200	0	0	0	0.146
Total	**8.624**	**0.469**	**1.500**	**0.975**	**1.099**
Percentage allocation	68	4	12	8	9

a. One project of $0.750 million was canceled without disbursement.

UNDP, which also administers the SGP, is responsible for 7 of the 11 national projects, constituting over two-thirds of GEF allocations, whereas other Agencies' funding varies between 4 and 12 percent of total GEF allocations. The UNDP portfolio covers mainly biodiversity and climate change projects.

In this context, it should be noted that Syria is not a member of any of the regional development banks that can manage GEF projects such as the Asian Development Bank. Furthermore, the World Bank has not had a lending program or country strategy for Syria since 1986, although more recently it has provided support to the country through technical assistance.

UNDP has been the main GEF Agency in Syria in all three GEF phases, while UNEP and the World Bank have played only a marginal role. FAO will be handling the PIF-approved POPs MSP to be financed out of GEF-4 funds.

4.5 Allocation by National Executing Agency

National executing agencies are entities that take responsibility for executing GEF-supported projects. The main executing agency for GEF-funded projects in Syria is the MSEA. The ministry manages projects in the biodiversity and POPs focal areas, which constitute about two-thirds of GEF financial allocations so far. Syria's climate change project ("Supply-Side Efficiency and Energy Conservation and Planning") was handled by the Ministry of Electricity. With the exception of the SGP, all GEF funding has been channeled through government entities. No NGOs have received GEF support directly other than through the SGP, which is implemented through NGOs and community-based organizations (CBOs), as discussed below.

4.6 The Small Grants Programme

The SGP was launched globally in 1992 to complement the GEF's other grants by supporting activities of NGOs and CBOs in developing countries that are aligned with objectives of the global conventions in each of the GEF focal areas, while generating sustainable livelihoods.[2] Funded by the GEF as a corporate program, the SGP is administered globally by UNDP on behalf of the GEF partnership and is executed by the United Nations Office for Project Services. The maximum grant

[2] The information presented here is taken from the SGP Web site (http://sgp.undp.org).

amount per project is $50,000, which is channeled directly to the recipient organizations.

Formally initiated in Syria in 2005, the SGP actually began operation the following year. As of February 2009, the SGP portfolio included 25 projects (excluding one that was canceled and one project that was not yet signed). Funded projects cover the focal areas of biodiversity, land degradation, and climate change; several were multifocal. Figure 4.2 shows the SGP allocations by focal area. The total amount allocated by the SGP for the 25 projects was $1.099 million, with cofinancing by NGOs and CBOs in the amount of $1,159,901 ($442,337 cash and $717,564 in-kind). The amount that had been disbursed as of February 2009 was $700,010. Table 4.7 shows SGP allocations by GEF phase, including number of projects in each phase, and RAF and core funds allocated and committed. By the end of February 2009, SGP allocations from GEF-4 included $125,000 from the RAF for climate change. An additional amount of $275,000 was requested but had not yet been approved.

The SGP has evolved since its inception as it attempts to improve its efficiency and effectiveness. Currently, the process for developing projects is being completely revised. Problems facing the SGP are limited options for financial transfers, especially to remote areas in the country. The SGP country program's priorities for the next reporting period include revision of the country program strategy, revising SGP objectives and outcomes in line with GEF-4 objectives and strategies, positioning the Syrian SGP within the development arena, promoting NGO/CBO capacity-building initiatives, and promoting gender and legal empowerment initiatives.

Figure 4.2

SGP Projects by Focal Area

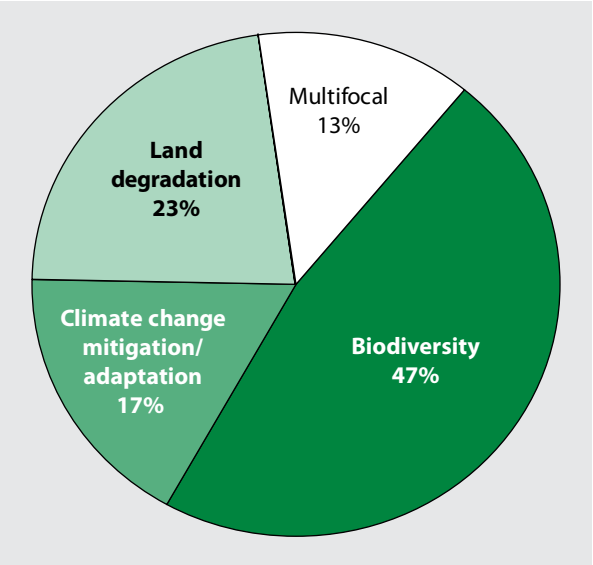


Table 4.7

SGP Allocations by Phase as of February 2009

GEF operational phase	Number of projects	SGP grants allocation ($)			
		Allocated		Committed	
		RAF	Core	RAF	Core
GEF-3 (2005–06)	10	0	450,000	0	387,835
GEF-3 (2006–07)	11	0	600,000	0	542,000
GEF-4 (2007–08)	4	112,500	125,000	100,000	169,400
GEF-4 (2008–present)	1	123,750	200,000	None yet	None yet
Total	**26**	**236,250**	**1,375,000**	**100,000**	**1,099,235**

Note: Excludes one $50,000 project that was terminated and one project that was not yet signed.

4.7 Regional and Global Projects

Syria has also received support from the GEF through regional and global projects (see table 4.1), which means that the projects involved multiple countries within the Arab region—or even from different regions of the world—and contain components implemented within Syria. The numbers of completed or under implementation regional and global projects in which Syria participates are shown in table 4.8 by focal area. The biodiversity focal area accounts for over one-half of these regional and global projects.

Table 4.8

Number of Regional and Global Projects in Which Syria Participates, by Focal Area

Focal area	Regional	Global
Biodiversity	2	5
Climate change	0	1
International waters	2	0
Land degradation	0	0
POPs	1	0
Multifocal	2	0
Total	**7**	**6**

Completed global projects are mainly in the biodiversity area, with a single MSP and four enabling activities (one of which is still under implementation). Four out of these five biodiversity projects were implemented through UNEP; the fifth was performed by UNDP. The completed biodiversity MSP focused on promoting best practices for the conservation and sustainable use of globally significant biodiversity in arid and semi-arid zones. One completed enabling activity elaborated biodiversity country studies (with a currently ongoing enabling activity providing support for carrying out CBD 2010 biodiversity targets national assessments). Two other completed enabling activities focused on developing the National Biosafety Framework and building capacity for effective participation in the Biosafety Clearing-House. Finally, an ongoing national communications program for climate change is aimed at preparing Syria's INC for the UNFCCC; this is implemented through UNDP and forms part of the list of global enabling activities.

The cost of national implementation for regional and global projects is not readily available and is very difficult to isolate. GEF grants are allocated for the entire project, not necessarily by country, although in GEF-4 the grants for regional and global projects under the RAF are built with specific country contributions. It is difficult to estimate exactly how much Syria is receiving from its participation in these regional and global projects.

5. Results of GEF Support to Syria

This chapter examines the following questions regarding global environmental impacts of GEF projects in Syria:

- What are the results (impacts and outcomes) of completed (and if appropriate, ongoing) projects, according to focal area frameworks and cross-cutting issues (that is, catalytic effects, institutional sustainability, capacity building, and awareness)?
- What are the aggregated results at the focal area and country levels?
- What is the likelihood that objectives will be achieved for those projects that are still under implementation?
- What is the sustainability of GEF support??

Results were measured **by focal area** using the following parameters:

- **Impacts:** changes in environmental status, especially those of global significance as well as reductions in threats to the globally significant resource
- **Outcomes:**
  - Catalytic and replication effects
  - Policy changes and institutional sustainability
  - Capacity building and awareness

Information on results was compiled from interviews, reviews of existing project documentation, and a few field visits to selected projects.

Note that enabling activities—which in Syria are particularly prevalent in the biodiversity focal area—are not expected to produce direct impacts at the environmental level, although such impacts may be produced when follow-up activities are implemented.

5.1 Biodiversity

The results delivered through the national, regional, and global biodiversity project portfolio since the start of GEF funding in Syria over 10 years ago are best viewed in the sequence of project implementation, as the portfolio was influenced by experiences from earlier projects and the changing Syrian context. Of the 11 biodiversity projects, 9 have been completed and 2 are under implementation. Five projects are national, and six are regional or global. Two projects are full size, two are medium size, and seven are enabling activities. In addition, 11 of the 27 projects in the Syrian SGP portfolio are in the biodiversity focal area.

Global Environmental Impacts

At the project level, GEF support to biodiversity conservation in Syria has resulted in significant global benefits by contributing to the formal protection of globally significant biodiversity and has strengthened management systems as evidenced from the following impacts:

- GEF support to the national project "Conservation of Biodiversity and Protected Areas Management" resulted in the development of alternative livelihoods for the local communities in the Cedar and Fir Protected Area. Impacts were evident from the reduction of one of the main threats to biodiversity—local communities' livelihood dependency on medicinal and aromatic plants—and an increase in the number of migratory birds flying into the protected area. Local communities also showed an improved understanding of and willingness to adopt new approaches for sustainable use and management of their biodiversity resources.
- The regional project "Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent" was crucial in disseminating over 16 target varieties (wild relatives of fruit trees and native species, in addition to wild relatives and land races of wheat, barley, and legumes) through the MAAR's national agricultural research commission. The project promoted alternative land use practices by collaborating with farmers to introduce wild relatives of fruit trees and land races of major crops. Also, propagation plots were created at research centers in the two target areas (Sweida and Lattakia). As a result, collaborating farmers started to rehabilitate wild species and land races and wild relatives of target species.

Outcomes

Catalytic and Replication Effects

The "Conservation of Biodiversity and Protected Areas Management" project had a significant influence on the institutional set-up of those Syrian government entities dealing with protected areas. For example, a formal arrangement for coordination was established between the MAAR and the former Ministry of Local Administration and Environment (now the MSEA); this has proven to be quite effective in the follow-on project "Biodiversity Conservation and Protected Area Management" which is now under implementation. Additionally, a management plan was published and has been replicated for other protected areas around the country. Lessons learned from the original protected areas project regarding coordination among relevant government institutions were crucial in the design of the follow-on project; the latter project has also benefited from experience gained in the dryland agrobiodiversity project involving tools and methods for developing alternative livelihoods for local communities. Alternative land use practices were also developed. These outcomes are being replicated with farmers and agricultural lands in other parts of the country.

The global enabling activity "Biodiversity Country Studies" provided the GCEA with the resources needed to assemble and combine all biodiversity studies in a single report. This outcome was crucial for introducing sound decision-making processes based on factual data.

The SGP continues to provide opportunities for a number of communities, households, and NGOs to learn and replicate the results of GEF-funded projects. Four projects with microcredit components (two on the revival of silkworm raising and silk production, and two on sustaining livelihoods and land resources in the Olive Mountains in northwest Syria) financially supported more than 100 individuals, and are expected to reach more than 250 people by the end of 2009.

Policy Changes and Institutional Sustainability

A key challenge in the biodiversity focal area in Syria is the ability of institutions to change their current policies and sustain the institutional gains made through GEF projects.

GEF support for the "Conservation of Biodiversity and Protected Areas Management" project helped expand and improve the protected areas system in Syria. The project established the foundation for producing long-term management plans for biodiversity conservation of protected areas and highlighted the need to protect two endangered species. It introduced the concept of training staff who will be employed to manage the protected areas; however, the institutional sustainability of this measure was not effective, as trained staff were later assigned to other positions within the MAAR.

Ultimately, the project proved to be a testing ground for coordinating efforts between the MAAR and the GCEA concerning the responsibilities for managing the conservation efforts of biodiversity in protected areas. Lessons learned from this project were applied to the follow-on project "Biodiversity Conservation and Protected Area Management," in which a new organizational structure for protected areas was adopted by the MAAR and approved by its minister. The original project also demonstrated the need for central government allocation of funds to finance conservation of protected areas (Syrian financial laws do not allow for the collection of fees to be used solely to manage protected areas). Additionally, the project provided government officials with specific information for institutionalizing protected area conservation in the relevant laws, and for updating the new Forestry Law No. 25 in 2007, which took into account the conservation of protected areas and recognized the relevant international conventions and treaties in this domain.

The "Conservation and Sustainable Use of Dryland Agrobiodiversity in the Fertile Crescent" project resulted in the formation of a national task force drawing from two national executive agencies (the GCEA and the MAAR), with the aim of reviewing and updating national policies and legislation related to biodiversity conservation and protected area management. New legislation to protect genetic resources was prepared and is now pending parliamentary approval. The project brought into existence new policies at the MAAR to conserve wild species and biodiversity. It also helped establish a genetic resources unit and biodiversity department in the General Commission for Agricultural Scientific Research; a herbarium for targeted species was also created. The government is sustaining these institutions by allocating a special budget for managing the herbarium, genetic resources unit, and biodiversity department.

The GEF enabling activity supporting Syria's first national report to the CBD initiated implementation of the Syrian government's response to the CBD. The key policies identified in this report provided an important baseline for the scope of the following enabling activities, namely in providing support to the Biodiversity Directorate in the GCEA for participating in the Clearing-House Mechanism of the CBD, and in ensuring effective communication with the CBD secretariat and other international organizations.

The global enabling activity supporting Syria's development of its National Biosafety Framework strengthened national capacity to develop a draft regulatory biosafety framework for the import and export of living modified organisms. The framework was presented to the Council for the Protection of the Environment and Sustainable Development, and was approved in 2008. A process for screening and receiving notifications has been established; this is awaiting approval prior to implementation.

Capacity Building and Awareness

The GEF's biodiversity projects in Syria have invested significant effort in capacity building and

awareness raising, partly because their success directly depends on changing behaviors.

The national project "Conservation of Biodiversity and Protected Areas Management" conducted training in macrolevel conservation, protected areas management planning, decision making and administration, protected areas field management techniques, fauna and flora surveying and monitoring, community conservation, ecotourism and visitor handling, monitoring and evaluation, socioeconomic data sheet and use, socioeconomic aspects of protected areas, and alternative incomes.

The regional project "Conservation and Sustainable Use of Dryland Agrobiodiversity in the Fertile Crescent" undertook intensive capacity-building programs for both individuals and groups. Some project staff now working at the MAAR's Agricultural Research Centre received master's and doctorate degrees in the field of agrobiodiversity conservation.

The global project "Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones" provided increased availability of and access to information on best practices, and increased awareness by local populations of lessons and best practices in arid and semi-arid ecosystems.

As part of the "Biodiversity Conservation and Protected Area Management" national project, a capacity-building program for work teams was initiated to apply effective protected area management plans at three project sites. As part of this program, 28 training modules have been provided thus far for work teams on national and regional levels.

The "Biodiversity Country Studies" global enabling activity provided Syria's first-ever opportunity to raise issues related to the management and conservation of biodiversity. Over 160 academic and government experts participated in the preparation of various studies related to biodiversity components, including an outline for a first strategy for biodiversity protection.

The national enabling activity "Biodiversity Strategy and Action Plan and Report to the CBD" provided support to the GCEA in submitting its national strategy to the convention. Similarly, the national enabling activity "Assessment of Capacity-Building Needs and Country-Specific Priorities in Biodiversity" provided the GCEA with the necessary capacities to send its second report to the CBD and to determine its priority areas for the second phase. And the global enabling activity "Carrying out 2010 Biodiversity Targets National Assessments" provided the GCEA with the resources to complete and submit its fourth report to the CBD secretariat in April 2009.

All biodiversity projects raised awareness by targeting key government institutions and local communities, particularly by communicating the importance of preserving biodiversity and protected areas. For example, "Conservation of Biodiversity and Protected Areas" raised awareness and understanding among government institutions of the concept of biodiversity conservation and the role of protected areas in improving local communities' livelihoods within key institutions. The "Biodiversity Strategy and Action Plan and Report to the CBD" included seven awareness-raising workshops for policy makers and other stakeholders on biodiversity conservation.

Members of local communities received information through GEF projects on alternative livelihoods in order to sustain and preserve the resources of the protected areas. The SGP is playing an important role in this area, as awareness raising is always included in SGP project design. For example, "Protecting Biodiversity and Limited

Natural Resources in the Jebel Abdul Aziz Protected Area" project aims to raise awareness of alternative livelihoods on the part of local communities in raising livestock in order to sustain the area's natural resources. This project synergizes with the GEF FSP "Biodiversity Conservation and Protected Area Management" and directly supports its outcomes.

The global enabling activity aimed at developing the National Biosafety Framework provided mechanisms for public participation and information dissemination. Awareness-raising workshops were conducted for government agencies, university staff, NGOs, and the private sector in different parts of the country to disseminate information on the framework's aims and outputs, and on the risks of living modified organisms. Similarly, the global enabling activity "Building Capacity for Effective Participation in the Biosafety Clearing-House" has strengthened capacity in the GCEA Directorate for Biodiversity through training on data input and information on living modified organisms.

5.2 Climate Change

The GEF portfolio in Syria in the climate change focal area consists of two projects. The first is a national project, "Supply-Side Efficiency and Energy Conservation and Planning," implemented through UNDP. This project, which has been completed, was intended to assist Syria in its efforts to reduce the growth of GHG emissions resulting from electric power generation and the inefficient consumption of carbon-based fuels. The second project is a global enabling activity related to the preparation of Syria's Initial National Communication for the UNFCCC, which is currently under implementation. Also, 5 of the 27 projects in the Syrian SGP portfolio are in the climate change area.

Global Environmental Impacts

The supply-side efficiency project set a target to reduce national energy consumption by 1.83 percent and CO_2 emissions by 765.5 tons from pre-implementation levels by 2008. However, there are no factual data to support this result yet. To achieve these targets, the project introduced efficiency and maintenance management systems for the four power generation units in the Banias thermal power plant situated on the Syrian coastline, concurrent with government plans to convert the combustion processes of these power generation units from heavy fuel to natural gas.

Concerning the second project, it is not possible to link the INC directly to GHG emissions; however, impacts will likely be found in the future in terms of both climate change mitigation and adaptation, when the baseline studies—including the GHG inventories—will significantly strengthen the foundation for effective strategic decisions and action.

Outcomes

Catalytic and Replication Effects

The efficiency and maintenance management systems developed by the supply-side efficiency project have been disseminated to other power generation plants around the country. The SGP is also providing good opportunities for a number of communities and NGOs to learn about and replicate the results of GEF-funded projects. A biogas project in the villages of Roha and Um Rumman visited by the evaluation team in the Sweida governorate in southern Syria demonstrates the efficiency and benefits for manure digesters to produce biogas as an alternative energy resource for heating purposes and organic fertilizer. The project is supporting three households and is expected to support eight more by the end of 2009.

The INC is likely to have tangible catalytic effects on Syria's climate change projects, but these have not been measured yet.

Policy Changes and Institutional Sustainability

The supply-side efficiency project created the National Energy Research Centre, an official institution within the Ministry of Electricity mandated with researching new alternative energy resources and energy efficiency initiatives. A project Web site was developed jointly with the ministry which includes an energy efficiency email service. The project also developed two energy efficiency laws that were recently enacted in Syria (see box 5.1). The first law deals with efficiency standards for consumption of electrical energy in the domestic, service and commercial sectors. The second law is a framework energy conservation law. The National Energy Research Centre was also involved in preparing the first version of the Building Thermal Insulation Code in 2006 which aims at improving thermal efficiency in buildings. A prime ministerial decision was issued in November 2007 requiring all public and private enterprises to incorporate the thermal insulation code in building designs of all structures to be submitted to the permitting process effective January 1, 2008.

Box 5.1

Energy Efficiency Laws

Law for Efficiency Standards for Consumption of Electrical Energy in the Domestic, Service and Commercial Sectors (Law No. 18) was enacted in October 2008. The law aims at raising the energy efficiency of electrical equipment to reduce national energy consumption and increase the ability of national manufacturers of electrical appliances to compete in the world market.

Energy Conservation Law No. 3 was issued in February 2009 and developed in coordination with the National Energy Research Centre. The law determines the regulating mechanism for renewable energy use at the national level. It includes a list of government incentives for renewable energy use projects and actions to encourage adoption by people, organizations, and manufacturers.

The INC has already established a working group in the GCEA with the specific task of conducting an inventory of GHG emissions in Syria. A steering committee made up of the head of the State Planning Commission, the MSEA minister, the GCEA general director, the GEF focal point, and the project's national coordinator meets regularly to discuss project activities and outcomes; these are communicated to the relevant government agencies so they can be incorporated into national development policies and plans.

Capacity Building and Awareness

Capacity building was an integral part of the supply-side efficiency project. The central project team was trained by the international contractor on systems maintenance and efficiency assessment, in addition to participating in on-the-job training at the power plant itself. Instrumentation and software for undertaking systems maintenance were procured. Technical internal and external teams were trained to replicate experiences learned and applied in the Banias plant to other power plants in Syria. In all, 300 walkthrough audits and 98 detailed audits were conducted, and 20 detailed feasibility studies were performed.[1] More than 200 engineers and 60 auditors were trained, more than 30 managers attended awareness-raising courses, and 5 conferences were convened. Data

[1] *Walkthrough audits* entail a preliminary assessment of energy consumption in a specific establishment; *detailed audits* investigate the different energy-consuming sources and assess their efficiency. *Feasibility studies* evaluate the technical and economic aspects of existing and alternative measures to reduce energy consumption in a specific establishment and the time needed for cost recovery.

related to industrial energy consumption at public and industrial facilities were processed and classified, and 3 scenarios on consumption and 18 estimated energy-saving measures were evaluated and shared with relevant stakeholders.

The project also helped raise awareness of climate change. It created an advertisement which was aired on national TV on energy efficiency and conservation. A package of training programs on energy efficiency was also prepared, a new film on energy efficiency targeting both youth and adults was made, a Web site on energy efficiency was developed, brochures for energy savings were disseminated, seven seminars were conducted in the various Syrian governorates as a follow-up to the public awareness campaign, publications for schools were developed, and a program was announced in which government employees would receive an interest-free loan to install solar heaters.

The SGP is also helping raise awareness about climate change issues. The "National Competition for Environmental Inventions—Climate Change Mitigation and Adaptation" project is launching a national competition for the best research or invention on climate change adaptation and use of alternative energy resources. The project looks to create partnerships among inventors, youth, and the private sector to turn new inventions into small-scale projects and highlight the importance of using renewable energy sources.

5.3 International Waters

The GEF portfolio in international waters in Syria consists of a regional FSP, "Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea." The project's goal was to improve the quality of the marine environment in the Mediterranean region through improved international cooperation in the management of land-based pollution of transboundary and regional significance. This was achieved by supporting the activities of the Mediterranean Action Plan (MAP) through the implementation of a strategic action program to address pollution of the Mediterranean Sea from land-based activities. The program was adopted by the contracting parties to the Barcelona Convention in 1997. Project activities included conducting transboundary analysis for 103 hotspots; formulating and adopting principles, approaches, measures, timetables, and priority actions to address each major land-based source of pollution and assisting countries in the implementation of such actions; conducting preinvestment analysis of expected baseline and additional actions needed to address the selected hotspots, and securing recipient country agreement to baseline investments; and helping countries prepare, adopt at the highest level, and implement country-specific national action plans based on the regionally prepared and adopted guidelines. The project was completed in 2006, and will be followed by two GEF-approved regional FSPs to be implemented through UNEP and the World Bank, respectively.

The first project, "Strategic Partnership for the Mediterranean Large Marine Ecosystem Regional Component: Implementation of Agreed Actions for the Protection of the Environmental Resources of the Mediterranean Sea and Its Coastal Areas," (CEO approved), builds on the model and lessons learned from the GEF Black Sea/Danube Partnership. It is a basinwide multistakeholder collaboration whose main objective is to help the Mediterranean basin countries implement reforms and investments in key sectors that address transboundary pollution reduction, biodiversity decline, habitat degradation, and living resource protection priorities.

The second project, "World Bank–GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership, Tranche 1, 2nd Allocation" (Council approved), aims at facilitating implementation of top transboundary priority pollution reduction and habitat protection measures for the recipient countries of the Mediterranean Sea basin. The investment fund—supported by the GEF with $60 to $70 million in grant financing over multiple tranches and open to other donors' contributions—is proposed as a vehicle for catalyzing investments and accelerating the urgent actions necessary for reducing pollution of the Mediterranean, and of the Adriatic Sea in particular.

Because neither project has yet been initiated, no activities have thus far been planned or implemented in Syria.

Global Environmental Impacts

As in the case of enabling activities in other focal areas, the strategic action program produced for the Mediterranean Sea is not expected to produce direct impacts on the environment. However, as noted above, the project has already generated potential future funding for several related projects to protect the global environment of the Mediterranean Sea through strategic partnerships and investment funds.

Outcomes

Catalytic and Replication Effects

National action plans and preinvestment studies financed by the project provided prefeasibility studies that were used by development banks and international finance institutions to fund projects in hotspots and sensitive areas in Syria. These plans and studies encouraged the Syrian government to give priority to cofinancing these projects and to allocate the necessary funds for their implementation. The project also promoted a participatory approach and coordination among government entities and NGOs, which allowed for the development of action plans reflecting the needs and priorities of all stakeholders.

Regional guidelines were prepared by the project's Implementing Agency (IA). These were provided to all Mediterranean countries through regional workshops and training courses, and were ultimately incorporated by the respective governments into their environmental guidelines.

Policy Changes and Institutional Sustainability

"Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea" brought the negative impacts of land-based sources of pollutants on the coastal zone and marine environment to the attention of policy makers. Since the coastal area has been targeted by policy makers for tourist development, top priority was given for adopting the necessary measures to limit the input of pollutants discharged into the Mediterranean Sea. As a result, when the National Action Plan for Reduction of Pollutants from Land-Based Sources was prepared as part of this project, the Syrian government adopted its measures in 2008. These have also been incorporated into the country's 10th five-year plan for social and economic development, and are reflected in national policies and ministerial decisions.

Capacity Building and Awareness

The project produced numerous studies that can be the basis of future interventions. Specifically, a transboundary diagnostic analysis for 103 hotspots around the Mediterranean, including 4 in Syria, was prepared. A priority list for actions was developed, and preinvestment studies were conducted. The preinvestment study for Syria has already been used by the European Investment

Bank to undertake further studies for financing interventions to limit pollutant discharges at the Banias refinery, the number one–ranked hotspot on the Mediterranean along the Syrian coastline.

The project also developed a national diagnostic analysis and a baseline budget of pollutants discharged from land-based sources and activities along the Syrian coastline. These studies were used to develop sectoral and national action plans that will be used by the government for financing interventions against land-based sources of pollution along the coast. The project raised the awareness of personnel in the Water Safety Directorate at the GCEA, particularly in relation to identifying pollutant sources, their risk, and impacts on the Mediterranean marine environment; and afforded needed training for NGOs and other national stakeholders to participate in the development of national action plans.

5.4 Land Degradation

The only results that can be reported in this focal area come from the SGP, since the GEF has so far not supported any FSPs or MSPs combating land degradation in Syria. There was an attempt by the Syrian government to request GEF support for an FSP in land degradation, but it was not approved. The project, "Integrated Sustainable Land Management in the Eastern Region," was proposed by the GCEA with a GEF grant of $7.5 million and Syrian government cofinancing of $10.575 million. PDF funding of $350,000 from the GEF with $155,000 in cofinancing was spent to undertake the necessary preparatory work, including the collection of baseline information, detailed consultation with key stakeholders, implementation arrangements, and strengthening of the institutional set-up at the provincial level. Ultimately, however, the project was not submitted for GEF Council approval for several reasons:

- The GEF-4 replenishment was lower than anticipated, so there was less funding for land degradation.
- The GEF Council, following the guidelines from the Convention on Desertification and Deforestation, decided to prioritize Sub-Saharan Africa in the land degradation focal area.
- The GEF Council decided to develop a programmatic approach for land degradation in the Arab countries (the MENARID initiative implemented through IFAD), although Syria is not part of this program in its present phase.

According to the GEF, there will be opportunities for Syria to receive GEF funding for land degradation in GEF-5.

IFAD, a GEF Agency, is currently active in the land degradation focal area in Syria. It finances projects that enable rural poor people to reclaim lands, improve rain-fed agriculture, and manage natural resources more effectively. It also promotes off-farm income-generating activities. Since 1982, IFAD has supported seven projects in Syria (in the northeastern, Badia, southern, Jabal Al Hoss, and Idleb regions, in addition to the coastal midlands), investing a total of $126.2 million in loans, with total cofinancing of $347.8 million.

5.5 POPs

One national enabling activity has been undertaken in the POPs focal area in Syria: "Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Syria." A regional FSP, "Demonstration of Sustainable Alternatives to DDT and Strengthening of National Vector Control Capabilities in Middle East and North Africa," to be implemented through UNEP, has been approved by the GEF Council. In addition, a PIF has been approved for a national MSP, "Prevention and Disposal of

POPs and Obsolete Pesticides in Syria"; this will be implemented through FAO. The SGP has no POPs projects in its portfolio.

Global Environmental Impacts

It is too early to link the NIP for POPs directly to the improvement of human health and the environment. It is anticipated that the impacts of this enabling activity will only materialize in the future when projects designed based on NIP recommendations are completed.

Outcomes

Catalytic and Replication Effects

The NIP has already enabled the initial collection, verification, and analysis of POPs and the POPs situation and options that can inform decisions at all levels. As a result, the government has allocated funding for actions to eliminate POPs (replacement of PCB transformers, management of disposal and open burning of wastes that produce dioxins, purchase of organo-chloride–free pesticides, and so on).

Policy Changes and Institutional Sustainability

The NIP was adopted by the relevant Syrian ministries, and its recommendations have been incorporated into their policies. Government agencies that adopted the NIP include the MSEA and the MAAR, as well as the Ministries of Electricity, Petroleum and Minerals, Social Affairs and Labor, Health, Transport, and Housing and Construction.

Capacity Building and Awareness

The NIP helped build capacity and raised awareness among personnel of the Chemical Safety Directorate at the GCEA, particularly in relation to identifying the sources of POPs, their risk, and safe management and disposal practices. It also helped create a data management system for hazardous chemicals imported into Syria. The project helped Syrian government agencies strengthen national capacities to manage POPs and chemicals, particularly with regard to proper management and disposal of solid hazardous wastes.

5.6 Multifocal Projects

Only one multifocal national enabling activity has been completed, the "National Capacity Self-Assessment for Global Environment Management." The SGP has four multifocal projects in its portfolio.

Global Environmental Impacts

It is too early to link the outcomes of the NCSA directly to global impacts on biodiversity, climate change, and land degradation. The aim of the NCSA process was to provide an opportunity for national stakeholders to articulate a thorough and participatory self-assessment and analysis of national capacity-building needs, priorities, and constraints in order to deal with global environmental issues and the global conventions. It is expected that the project will enable the generation of future funding to protect the global environment within the broader perspective of sustainable development.

Outcomes

Catalytic and Replication Effects

The NCSA enabled government institutions to develop new project concepts in biodiversity, climate change, and land degradation to better coordinate the requirements of the three relevant conventions. Accordingly, costs of projects were estimated, and a prioritized integrated list was developed for future funding by international financing institutions and the government.

Policy Changes and Institutional Sustainability

The NCSA was presented to the relevant ministries, which in turn adopted the conclusions and recommendations proposed in the report at relevant administrative levels.

Capacity Building and Awareness

The NCSA provided capacity building to government institutions and their staff and highlighted the gaps in existing capacities for determining needs and coordinating priorities in the three GEF thematic areas of biodiversity, climate change, and land degradation.

6. Relevance of GEF Support to Syria

This chapter addresses the following evaluation questions:

- Is GEF support relevant to Syria's five-year development plans and environmental priorities, its development needs and difficulties, and its action plans in the GEF focal areas?
- Is Syria supporting the GEF mandate and focal area programs and strategies with its own resources and/or support from other donors?
- Is GEF support relevant to the achievement of the GEF mandate and strategic objectives?
- Is GEF support relevant to GEF Agency strategies?

The relevance of the GEF portfolio in Syria in terms of most of the questions above is evaluated based on the project development process and project results over all GEF phases.

6.1 The GEF Portfolio and Syria's Development Plans and Environmental Priorities

Support of Environmental Priorities in the Five-Year Development Plans

Chapter 3 presents details of Syria's last three five-year social and economic development plans spanning the years from 1996 to 2010, the period during which the GEF has funded its projects in Syria. A brief summary of the strategic priorities of these plans indicates that the 8th five-year plan (1996–2000) addressed issues related to land degradation for agricultural areas, biodiversity protection for forests, protection of marine biodiversity for fish stocks, and protection of water from contamination. The 9th five-year plan (2001–05) promoted incorporation of the environmental dimension into development planning, land degradation, integrated water resource management, improving agricultural productivity, protection of freshwater resources, biodiversity protection particularly for natural forests, energy efficiency through the rehabilitation of power generation plants, and capacity building and awareness raising in the environmental field. The 10th five-year plan (2006–10) focuses on formulating overall national policies to alleviate the various forms of pollution, combating desertification, enriching biodiversity, and introducing sustainable resource planning; implementing sustainable rural development; creating interactive planning and administrative partnership among the environment, production, and service sectors; and raising the level of environmental awareness.

Biodiversity protection is a common objective of the three plans. Energy efficiency and alleviating various forms of pollution, both of which address climate change, constitute part of the 9th and 10th five-year plans. These two focal areas account for about 84 percent of GEF funding in Syria; thus, GEF projects were directly relevant to these

national priorities. On the other hand, integrated water resource management and protection, and land degradation and combating desertification, which constituted part of all three development plans, were not represented at the national level by GEF projects and activities. Many Syrian government officials rank water and land degradation issues as higher national developmental priorities than biodiversity protection and climate change, which they view to be of global significance. They argue that GEF projects did not give equal weight to all national strategic priorities of Syria. This is evident by the scope of projects financed over the first three GEF phases as explained below.

The **GEF-1 phase (1994–98)** funded projects that focused mainly on climate change and biodiversity:

- The climate change national project "Supply-Side Efficiency and Energy Conservation and Planning" is directly related to the issue of energy efficiency of power generation plants raised in the 9th five-year plan.
- The biodiversity regional project "Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent" indirectly addresses the issue of increased agricultural productivity by introducing endemic land species, as mentioned in the 9th five-year plan.
- The enabling activity for preparing the National Strategy and Action Plan on Biodiversity promotes forest conservation and protection, as required by both the 8th and 9th five-year plans.

The **GEF-2 phase (1998–2002)** funded projects that focused mainly on biodiversity, with a regional project in the international waters focal area:

- The biodiversity project "Conservation of Biodiversity and Protected Areas Management" deals directly with forest protection, as mentioned by both the 8th and 9th five-year plans.
- The enabling activity for "Assessment of Capacity-Building Needs and Country-Specific Priorities in Biodiversity" and the global project "Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones" support biodiversity protection as required by both the 8th and 9th five-year plans.
- The regional project "Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea" indirectly supports government efforts for protection of its fish stocks, as stated in the 8th five-year plan.

The **GEF-3 phase (2002–06)** mainly included projects in biodiversity, with two enabling activities in climate change and POPs:

- "Biodiversity Conservation and Protected Area Management" aims to demonstrate practical methods of protected area management. This is covered in both the 9th and 10th five-year plans.
- The enabling activities to prepare biodiversity country studies and carry out the 2010 biodiversity targets national assessments both support the need for biodiversity protection, which is explicitly stated in the 10th five-year plan.
- The enabling activities for preparing Syria's INC for the UNFCCC and NIP for POPs contribute to determining the sources and sinks of GHGs in Syria, and to preparing the groundwork for implementation of the Stockholm Convention. Both projects support the need for creating an interactive planning and administrative partnership among the environment, production, and service sectors in the 10th five-year plan.

The above analysis of projects, summarized in table 6.1, confirms the breadth of the GEF portfolio in biodiversity protection and climate change, and the low level of involvement in the land degradation and international waters focal areas. The significance of freshwater scarcity in the region—and the fact that Syria shares a number of important surface water bodies such as the Euphrates, Orontes, and Yarmouk Rivers with its neighbors—points to missed opportunities for GEF involvement in projects that directly affect the quality of life for the peoples of the region. Similar arguments may be made for missed opportunities regarding regional projects to combat desertification and degradation of agricultural lands, as food scarcity is becoming a problem of regional significance given the area's population explosion. Nevertheless, it should be recognized that all GEF-funded projects in Syria included capacity-building and awareness-raising components which fulfill the requirements of the five-year national development plans.

Support of National Environmental Strategies

The Syrian NEAP targets a number of priority issues of relevance to the GEF focal areas including preventing the exploitation of land and water resources; reducing the effects of pollution on human health; protecting natural resources; and environmental capacity building, education, and awareness raising.

Table 6.1

Completed Projects, Main Themes, and Their Relevance to National Development Plans

Project	Main theme	Development plan		
		8th (1996–2000)	9th (2001–05)	10th (2006–10)
Supply-Side Efficiency and Energy Conservation and Planning	Climate change mitigation and adaptation	Not applicable	Promoting energy efficiency through projects such as the rehabilitation of the Banias power generation plant	Formulating overall national policies to alleviate various forms of pollution
Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent	Preservation of endemic land species	Protection of agricultural land	Improving agricultural productivity	Enriching biodiversity, and introducing sustainable resource planning; implementing sustainable rural development
Conservation of Biodiversity and Protected Areas Management	Management of protected areas	Protection of forests	Preserving natural and environmental resources and establishing protected areas	Enriching biodiversity and introducing sustainable resource planning
Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea	Protection of the Mediterranean marine environment	Protection of fish stocks	Protecting water resources	Formulating overall national policies to alleviate various forms of pollution
Biodiversity Conservation and Protected Area Management	Management of protected areas	Protection of forests	Preserving natural and environmental resources and establishing protected areas	Enriching biodiversity and introducing sustainable resource planning

The GEF biodiversity projects and enabling activities address the national priority actions related to protecting natural resources. The climate change and POPs projects address the need for reducing the effects of pollution on human health; all projects have a capacity-building and awareness-raising component. However, as noted before, the GEF portfolio does not address the first priority related to land degradation and water resources.

Support of Local and National Development

The Small Grants Programme is helping increase GEF visibility in Syria. The SGP provides access to GEF funds to local communities and NGOs, and can easily and effectively respond to their priorities and needs. The outcomes of SGP projects are more easily sustained by local groups because they benefit them more directly as compared to medium- or full-size projects, which require government funding in order to sustain outcomes. The SGP initiative to support GEF-funded projects is proving to be an effective way to deal with this shortcoming. For example, one SGP project is providing support to the local communities living in the Jebel Abdul Aziz Protected Area. This area has been designated as one of three protected areas that constitute part of the national project "Biodiversity Conservation and Protected Area Management." The aim of the SGP project is to ensure that once GEF project implementation is completed, the local population has the means to generate income from alternative livelihoods that preserve the protected area without depending on government funding to sustain GEF project outcomes.

The NCSA enabling activity helped the government identify Syria's priorities and provided a foundation for strategic decision making on capacity building in the GEF portfolio. It strengthened Syria's identification of key enabling conditions necessary to ensure effectiveness and sustainability of results.

All GEF projects provided capacity building and awareness raising to the focal points of the international conventions and their directorates. They also provided needed training for NGOs and other national executing agencies. Specifically, GEF projects contributed to enhancing general awareness and knowledge of the GEF focal areas in Syria, particularly in climate change and biodiversity, as discussed in chapter 5.

6.2 Support of the GEF Mandate and Focal Area Programs and Strategies

Country Ownership

In examining the origins and outcomes of projects supported by the GEF in Syria, the evaluation found that all **national projects** have originated within the country—that is, their concepts were proposed by the GCEA in consultation with the GEF Agencies (mainly UNDP) based on previously identified national priorities (although proposals were generally prepared by the Agencies due to the complex nature of GEF proposal documents). The projects are fully locally owned, and they address national priorities that align with GEF priorities. Consequently, when these projects are completed and GEF funding has ended, the relevant governmental executing agencies attempt to integrate their outcomes into their own mandate, and typically request additional budget and human resource allocations from the Ministry of Finance to sustain their outcomes (for example, budgeting for the National Energy Research Centre in the Ministry of Electricity, and budgeting for the MAAR to manage protected areas).

Regional and global projects are typically initiated by the GEF Agencies, which communicate their ideas to the GCEA and the relevant convention focal point. The GCEA coordinates with relevant governmental agencies for approval to join the project. Although these projects may not directly address national priorities (for example, the "Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway" project), government support is still generally forthcoming to sustain project outcomes (as with the budget allocated to the Genetics Resources Unit in the MAAR, and investments for projects to reduce land-based sources of pollutants to the Mediterranean Sea).

Enabling activities are often developed to fulfill specific requirements of international conventions (such as the report to the CBD, the NIP for POPs, and so on). These activities are prompted by the various conventions and developed by the GCEA in close coordination with the relevant GEF Agencies. Again, project outcomes are generally used in prioritizing national initiatives and are typically integrated in Syria's five-year national development plans (such as the classification system for forests included in the 9th five-year plan).

In all cases, GEF projects have provided an opportunity to implement new or build on existing initiatives originating in the country as national ideas and experiences evolve. Although GEF Agencies have helped improve certain operational aspects and assisted in making adjustments whenever necessary, project leadership has remained in local hands.

Cofinancing

In GEF terms, cofinancing is funding that is additional to the GEF grant and is needed to implement project activities and achieve project objectives. The GEF sets no specific requirements, but cofinancing is expected to be part of any GEF-supported project, although guidelines are used for each focal area. Cofinancing analysis was based on information from project documents at the time of approval and not verified for completed projects.

The GEF has funded about $12.7 million through 10 national projects including the SGP. Cofinancing was about $32 million, of which $28 million came from government agencies. This is a ratio of about $2.50 for every $1 from the GEF, which is less than the GEF Evaluation Office estimate for global cofinancing ratios of $4 to every $1 for completed projects. When the largest government contribution of $25 million for a single project ("Supply-Side Efficiency and Energy Conservation and Planning") is excluded, the overall ratio decreases to less than $1 for every $1 from the GEF—a low contribution ratio that at first glance signifies a very low government commitment to GEF projects. However, when considering the government contribution to the supply-side efficiency project, in which cofinancing was 5.5 times the GEF funding, and the government commitment to the land degradation project (which was not repipelined) in the amount of $10 million for a GEF grant of $7.5 million, it becomes clear that substantial government cofinancing exists where direct economic impacts are foreseen. In fact, the supply-side efficiency project offers direct cost savings in the consumption of petroleum products for power generation, and the land degradation project offers increased income to farmers from the protection of agricultural lands. Consequently, government cofinancing can be expected to be more significant when project objectives are directly in line with national priorities for socioeconomic development.

6.3 Relevance to the GEF Mandate and Strategic Objectives

Biodiversity

As described in section 5.1, the GEF portfolio for biodiversity projects focused on conservation and protected area management, in addition to conservation and sustainable use of dryland agrobiodiversity. The impacts of these interventions have enabled the biodiversity portfolio to maximize the achievement of global benefits, which are in line with Syria's priority for biodiversity conservation, particularly for forests and natural reserves. The protected area management projects catalyzed the sustainability of protected area systems (a GEF-4 objective). The agrobiodiversity project addressed genetic resources, hence mainstreaming biodiversity in production landscapes and sectors (a GEF-4 objective). Therefore, the selection of biodiversity projects in Syria is relevant to and aligned with the GEF mandate.

Climate Change

The "Supply-Side Efficiency and Energy Conservation and Planning" project is relevant to maximizing potential global benefits in terms of improving the efficiency and performance of existing power plants (a GEF-4 objective). This is confirmed by data analysis presented in chapter 3 which shows that the energy sector is by far the greatest source of GHG emissions in Syria (accounting for over one-third of the country's GHG emissions). However, other sectors could also potentially achieve significant global benefits, such as the transport and industrial sectors. Potential improvements in the efficiency and performance of industrial and manufacturing processes and facilitating market transformation for sustainable mobility in urban areas (GEF-4 objectives) involve over one-third of GHG emissions in Syria. These sectors thus represent a potentially significant impact on global environmental benefits that have not been included in the GEF climate change portfolio.

POPs

The PIF for the "Prevention and Disposal of POPs and Obsolete Pesticides in Syria" project was recently approved, based on the development of the required strategies and action plans through the enabling activities for the Stockholm Convention on POPs. This project will enable assessment of potential global environmental benefits, as well as the urgency of national level action in this area.

6.4 Relevance to GEF Agency Strategies and Frameworks

The principal GEF Agency implementing GEF-funded national projects in Syria is UNDP, whose GEF portfolio in Syria accounts for over two-thirds of GEF funding, and 6 out of 8 national projects and enabling activities completed or under implementation since 1994. Other GEF Agencies, including the World Bank and UNEP, do not have offices in Syria or national frameworks.

UNDP began operating in Syria in 1962, providing a range of technical assistance programs to the government. In the mid-1990s, UNDP identified intended outcomes in three areas—the environment, governance, and poverty—as the focus of its strategic development interventions in Syria. With respect to the environment, for which the GEF and other donor resources were mobilized, this particular focus was in response to global priority shifts following the 1992 Earth Summit and to emerging national development concerns in Syria.

After 2000, UNDP reacted to the changing political context in Syria by continuing, and in some respects increasing, its focus on poverty and governance, the two thematic areas perceived to be

of strategic importance to emerging political and development trends in Syria. UNDP also continued its focus on the environment, which was deemed the least controversial politically, and for which development of pertinent strategies was generally unproblematic.

At the present time, and based on UNDP's 2008 country strategy for Syria, work in the environmental field (detailed in Outcome 4 of the strategy) aims to improve the environment at the national and regional levels by

- strengthening national capacity to meet obligations toward ratified environment conventions (biodiversity, climate change, and desertification),
- improving the environmental situation with the involvement of local communities and the private sector.

These activities are directly relevant to the GEF portfolio in the biodiversity and climate change focal areas, and were the basis of other environmental projects carried out by UNDP once the GEF became active in Syria (for example, the NEAP, which was financed by the World Bank; the National Action Plan for Combating Desertification, which was financed by the Desertification Development Centre; and planning for integrated water resource management, which was financed directly by UNDP).

UNDP environmental activities in Syria were reviewed in the Agency's country evaluation undertaken in 2005. The evaluation report states that the focus in the environmental field was aligned with mobilized resources from donors and trust funds such as the GEF; however, UNDP did not have a leading strategic position in the environmental field given development interventions by other donors. The report further states that UNDP is credited as being instrumental in supporting the development of a NEAP, and is associated "to a great extent" with activities in the environmental field.

7. Efficiency of GEF-Supported Activities in Syria

This chapter addresses the following questions:

- How much time, effort, and money are needed to develop and implement projects, by GEF support modality?
- What are the roles, types of engagement, and coordination mechanisms among different stakeholders in project implementation? In particular, what is the national mechanism for GEF implementation?
- How successful is the dissemination of GEF project lessons and results?
- How efficient is the GEF focal point mechanism?

7.1 Resources Required for Project Processing

This section reviews the efficiency of GEF-supported activities in Syria, as measured by the time and money needed for project preparation and implementation under the GEF Activity Cycle.[1] The limited number of projects in Syria, and the limited information available about them, means that any conclusions drawn contain a degree of uncertainty. For a significant number of projects, the GEF database does not have full information on the investment made by the project proponents or implementers on the preparation process; also, milestone dates for the project cycle are not always available.

Preparation Costs

Because project proponents do not fully disclose information on their preparation costs, calculating the cost of preparing a GEF project is difficult. The cost of any associated PDF may be used as an indicator of a particular project's preparation cost, but PDFs are granted up to certain maximum amount by project modality (a PDF for the preparation of an MSP can be a maximum of $50,000), and independent determination of costs may not necessarily be possible.

Of the six national MSPs and FSPs funded by the GEF in Syria, two have requested PDFs for project preparation in the amounts of $194,000 and $350,000, respectively. The larger PDF, which was for a land degradation project, was cofinanced by UNDP in the amount of $187,000, but the investment did not lead to a project. Additionally, preparation of the PIF-approved POPs project was financed by FAO for $60,000 without GEF PDF support.

Average Time Taken to Achieve Project Cycle Milestones

Figure 7.1 presents the GEF Activity Cycle before its recent reformulation in 2007. Table 7.1 shows the duration of the cycle for GEF-supported FSPs

[1] This discussion refers to the GEF Activity Cycle that was in place at the time when the projects in the Syria portfolio were approved and does not address the new project cycle approved by the GEF Council in June 2007.

Figure 7.1

GEF Activity Cycle

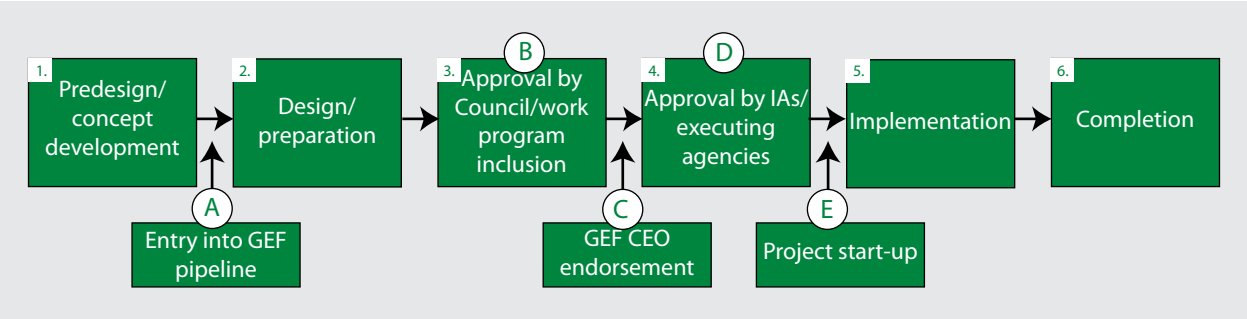


Table 7.1

Duration of the Activity Cycle for GEF-Supported FSPs and MSPs in Syria

Project name	Modality	Duration between phases (days)					
		A→B	B→C	C→D	D→E	B→E	A→E
Supply-Side Efficiency and Energy Conservation and Planning	FSP	101	684	13	65	762	863
Biodiversity Conservation and Protected Area Management	FSP	1,323	518	19	97	634	1,957
Conservation of Biodiversity and Protected Areas Management	MSP	n.a	n.a	178	168	349	421
Increasing the Efficiency of the Hydrocarbon Sector by Using Waste Gas	MSP	n.a.	n.a.	98	n.a.	n.a.	n.a.

Notes: n.a. = not applicable. Data are based on the received date in the GEF database, not the pipeline entry date. See figure 7.1 for stages of GEF Activity Cycle (A–E).

and MSPs in Syria. Regional and global projects are not included in this discussion because they have different requirements, such as extensive international consultations.

Based on an examination of the data in table 7.1, and taking into account the limited number of projects, the following conclusions can be reached.

- **For the two FSPs**:
  - The time from project entry into the GEF pipeline to GEF Council approval varied from about 3 months for the supply-side efficiency project to 44 months (a little less than 4 years) for the biodiversity conservation project.[2]
  - The time from Council approval to GEF CEO endorsement varied between 1.4 and 1.8 years.
  - The time between CEO endorsement and UNDP approval was about two to three weeks.
  - The time needed for approval by UNDP to project start-up was between two and three months.
  - The time needed for the entire process (entry into the GEF pipeline to start-up) varied from 2.4 years for the supply-side efficiency

[2] The excessive length of time required for the latter project was the result of ongoing discussions among the project preparation consultant, the GEF Agency, and the GCEA on the PDF, with feedback periods extending up to six months. Moreover, during this long time period, there were changes in key personnel, resulting in a lack of continuity in follow-up.

project to 5.4 years for the biodiversity conservation project.

- The two **MSPs** were prepared by the World Bank, but little information was available for the hydrocarbon project:
  - The time from CEO endorsement to World Bank approval varied between three and six months.
  - The time between approval by the World Bank to project effectiveness/start-up was about six months.
  - The time required for the entire process (entry into the GEF pipeline to project start-up) was 14 months.

These findings on the GEF Activity Cycle are in line with those from other evaluations conducted by the GEF Evaluation Office.

Project Management Costs

The evaluation did not have sufficient information to assess the cost of managing GEF projects accurately. The cost of managing project implementation comes from different sources, including the Agency fee provided by the GEF, Agencies' own resources, and the project budget itself. In 2000, the GEF started providing a flat Agency fee of 9 percent of the GEF grant; this was raised to 10 percent in GEF-4.

In Syria, GEF Agencies have received fees for four projects. UNDP received a total of $465,000 as its fee for the implementation of two projects: "Biodiversity Conservation and Protected Area Management" and the NCSA. FAO received $98,000 for the "Prevention and Disposal of POPs and Obsolete Pesticides in Syria" enabling activity; UNEP received $54,000 for "Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Syria."

Expected and Actual Completion Dates

Table 7.2 compares the start-up and actual closing dates for FSPs, MSPs, enabling activities, and SGP activities, noting projects' planned durations and required extensions.

- Only one of the two **FSPs** implemented through UNDP has been completed. Planned duration for the supply-side efficiency project was 60 months; the time extension needed to complete the project was 37 months. This translates to an increase of about 60 percent over planned duration.
- Only one **MSP** has been completed (implemented through the World Bank). The planned duration was 36 months; the time extension needed for completion was 44 months. This translates to an increase of about 120 percent over planned duration.

Four completed enabling activities were considered. Three are in the biodiversity focal area and were implemented through UNDP; the fourth is in the POPs focal area and was implemented through UNEP.

- The planned duration for "Biodiversity Strategy and Action Plan and Report to the CBD" was 13 months; an extension of an additional 9 months was needed, representing an increase over planned duration of about 70 percent.
- The planned duration for "Additional Enabling Activity Support for Participation in the Clearing-House Mechanism of the CBD" was 12 months; an additional 12-month extension was needed, representing a 100 percent increase over the planned duration.
- The planned duration of the "NCSA for Global Environment Management" was 20 months; it required an extension of 9 months, translating into a 45 percent increase over planned duration.

Table 7.2

Planned and Actual Durations of FSPs, MSPs, and Enabling Activities in Syria

Project	Modality	Target completion date	Actual completion date	Planned duration (months)	Extension (months)
Supply-Side Efficiency and Energy Conservation and Planning	FSP	10/01/03	10/01/06	60	37
Conservation of Biodiversity and Protected Areas Management	MSP	09/30/02	05/01/06	36	44
Biodiversity Conservation and Protected Area Management	FSP	02/08/12	Ongoing	85	n.a.
Biodiversity Strategy and Action Plan and Report to the CBD	Enabling activity	9/30/99	6/30/00	13	9
Additional Enabling Activity Support for Participation in the Clearing House Mechanism of the CBD	Enabling activity	4/30/02	5/1/03	12	12
Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Syria	Enabling activity	11/3/07	4/1/09	61	17
National Capacity Self-Assessment for Global Environment Management	Enabling activity	2/28/07	11/25/07	20	9

Note: n.a. = not applicable (project still under implementation).

- The planned duration for the POPs enabling activity was 61 months; the project needed a 17-month extension, translating into a 27 percent increase over planned duration.

The foregoing suggests that unrealistic end dates were set for project completion during the preparation phase that did not take into account contingencies—some of which might be specific to the Syrian context—that might arise during project implementation. Project extensions for MSPs and FSPs varied from 60 to 120 percent increases over planned project durations. Extensions for enabling activities varied from 27 to 100 percent. The project requiring the shortest extension was implemented through UNEP.

Long extensions make for managerial and organizational problems; in addition, national executing agencies lose the advantage of a firm timetable for incorporating findings and conclusions into their institutional structures.

7.2 Roles and Relationships

Who Initiates, Designs, and Implements GEF Projects in Syria?

Project design in Syria is mainly undertaken by the GEF Agencies, as they have the resources and knowledge to prepare a GEF project according to GEF rules and procedures. The Agencies typically take input from the convention focal points in the GCEA and translate this into a "GEF-able" proposal. This division of labor is likely inevitable, unless the complex nature of GEF requirements can be simplified or are made clearer, more transparent, and more consistent. In addition, capacity within the GCEA needs to be developed for effective project design and documentation.

The national executing agencies that have managed GEF project implementation are government entities. The MSEA has been responsible for almost all enabling activities and has played

a coordinating role for all FSPs and MSPs (both national and regional). The MAAR was involved in the full- and medium-size biodiversity projects, and the Ministry of Electricity was active in Syria's climate change project (on supply-side efficiency).

How Clear Are Roles and Responsibilities?

GEF Agencies

At the national level, UNDP has been the main IA for GEF projects in Syria. Its portfolio consists of six completed or ongoing projects and activities, compared to one national project for UNEP and two national projects for the World Bank. UNDP has played an instrumental role in coordinating efforts among the GEF focal point, the convention focal points in the GCEA, and representatives of national executing agencies during the project preparation phase. UNDP's large share of GEF projects in Syria is primarily attributable to its physical presence in the country and the resource base the country office can provide during project implementation. It is expected that FAO and IFAD will play a crucial role in Syria as GEF Agencies in the future. FAO is the GEF Agency for a PIF-approved POPs project. IFAD identifies GEF involvement based on country needs, potential relevant linkages with IFAD operations, and the potential of projects to yield global environmental benefits. As indicated earlier, Syria is not a member of any of the GEF regional banks.

Executing Agencies

According to the convention focal points at the GCEA, the executing agencies' roles and responsibilities as set forth in project documents were generally clear, with one exception. The "Conservation of Biodiversity and Protected Areas Management" project documentation lacked sufficient clarity in outlining the roles and responsibilities for the MAAR and the GCEA, which resulted in significant delays and culminated in project cancellation after a few years of implementation. The problems in this case were specific to the project and were addressed in the follow-on "Biodiversity Conservation and Protected Area Management" project.

7.3 Learning

A close examination of the documents related to GEF-funded projects in Syria indicates that projects have been designed to promote learning (capacity building, public awareness) as a fundamental component of their activities. For example, the two biodiversity projects dealing with protected area management and the agrobiodiversity project all have significant learning components embedded in their project design, which has led to the spread of knowledge and know-how during and after implementation (for example, the introduction of alternative livelihoods, dissemination of new plant species, and so on). Similarly, the supply-side efficiency project created efficiency management and maintenance management systems, both of which were learning tools that were disseminated by the executing agency (the Ministry of Electricity) to other power generation plants.

The experience of existing GEF projects has been used to enrich new project design and implementation. This was evident in "Biodiversity Conservation and Protected Area Management," which was designed based on lessons learned in "Conservation of Biodiversity and Protected Areas Management," such as coordination among executing agencies and the effectiveness of alternative livelihood methods, capacity-building methods, institutional arrangements, awareness-raising programs, project implementation timetable, and so on. Evidence of learning in GEF projects is demonstrated in plans to disseminate learning by

developing training; writing guides, handbooks, and pamphlets; and delivering presentations.

The SGP is proving to be a rich ground for lessons learned. Such lessons include the development of a country strategy, capacity-building methods for developing project proposals by CBOs, and effective use of steering committees in the coordination and management of the Syria SGP.

7.4 GEF Focal Point Mechanism

As noted, both the political and operational roles of the GEF focal point are assigned to the deputy minister in the MSEA, who also handles all other official development assistance and manages several bilateral agreements. The ministry is the primary executing agency for GEF projects in Syria. The international convention focal points are represented within the ministry which currently oversees the tasks undertaken by the GCEA.

To date, a national GEF committee has not been formed in Syria, as has been the case in other countries. Consequently, the GEF focal point, after consultation with the convention focal points, SGP steering committee, and/or other national executing agencies, recommends how to allocate GEF resources. The GEF requires the endorsement of all its projects by the GEF operational focal point. Given the additional responsibilities of the GEF focal point in Syria, concerns about the efficiency and effectiveness of the focal point mechanism were raised by some convention focal points and IA representatives; they claimed that they are not being consulted in a satisfactory manner on the nature of GEF projects and about projects in their respective areas (particularly in the international waters focal area).

Prior to the initiation of the RAF, projects were proposed based on existing national strategies and action plans, taking into account GEF priorities in the areas of biodiversity conservation and climate change, after consultation with the convention focal points and relevant government organizations. The process did not include sufficient checks and balances to ensure that all relevant priorities were evaluated and that all pertinent stakeholders were being consulted.

When the RAF allocations were created in the biodiversity and climate change focal areas, the GEF focal point—supported by the GEF Country Support Programme—organized a national dialogue workshop to identify priorities for the GEF-4 RAF allocations. Over 40 people attended the workshop, which was held February 20–21, 2008.[3] Projects considered in the workshop were in the biodiversity and climate change focal areas only, thus limiting the GEF focal point's ability to address other national priorities in the context of GEF project selection criteria. At the conclusion of the workshop, a priority list was developed, which formed the basis for project endorsement by the GEF focal point.

Two issues can be highlighted concerning the focal point mechanism in Syria:

- A transparent representation and consultation process in the GEF project selection phase is lacking.
- Necessary capacities for the preparation of GEF projects are lacking. In principle, the GCEA has only a limited capability to generate project

[3] Government agencies attending the workshop included representatives from the State Planning Commission, the GCEA, the Ministry of Transport, the Ministry of Industry, the Ministry of Petroleum and Minerals, the Ministry of Housing and Construction, the Ministry of Irrigation, the Ministry of Health, the Public Authority for Agricultural Scientific Research, and the National Energy Research Centre affiliated with the Ministry of Electricity.

proposals that would be acceptable to the GEF, given the complexity of the GEF proposal-writing process and continual changes to the proposal format. Currently, the GEF focal point, in coordination with the relevant convention focal point, generates the necessary project data and completes the GEF PIF. This form is then submitted to the designated GEF Agency, which follows up on the proposal preparation process until GEF Council approval is obtained. The GCEA is kept informed about the project's preparation progress and approvals.

Annex A. Terms of Reference

A.1 Background and Introduction

The GEF Council has requested that the GEF Evaluation Office conduct evaluations of the GEF portfolio at the country level: GEF country portfolio evaluations. The overall purpose of these evaluations, as requested by the Council, is two-fold: (1) to evaluate how GEF-supported activities fit into national strategies and priorities as well as within the global environmental mandate of the GEF, and (2) to provide the Council with additional information on the results of GEF-supported activities and how these activities are implemented.

Countries are selected for portfolio evaluation from among 160 GEF-eligible countries, based on a stratified randomized selection and a set of strategic criteria. Documents for the completed evaluations are available on the GEF Evaluation Office Web site. The evaluations, findings, and recommendations from the Cameroon, Egypt, and Syria CPEs will be synthesized in a single report and presented in June 2009 to the GEF Council to assess and report on experiences and common issues across different types of countries.

Syria was the first Arab country to establish an independent environment ministry (in 1992) and to incorporate environmental aspects into development planning. Nationally, environmental issues are dealt with on three levels. On the first level, an interministerial body, the Council for the Protection of the Environment and Sustainable Development, is responsible for setting national policy and coordinating environmental management activities.[1] The council is headed by the prime minister. On the second level, the Ministry of State for Environmental Affairs plays regulatory, coordination, and research function roles in collaboration with other related ministries. On the third level, local directorates in the governorates enforce environmental regulations. In 2002, the environment law was ratified by Parliament. The law sets the responsibilities and authorities for the General Commission for Environmental Affairs. Since then, the Council for the Protection of the Environment and Sustainable Development has issued a number of directives for pollution control in different environmental media. Other legislation was also enacted in the fields of agriculture, water and irrigation, and waste management to support the implementation of the environmental law, including the forest protection law (1994),

[1] The council's membership is drawn from various ministries—environmental affairs, irrigation, agriculture, transport, industry, petroleum and minerals, housing, interior, health, finance, electricity, tourism, education, and social affairs—as well as from the State Planning Commission, several public organizations, the chambers of industry and commerce, and vocational syndicates.

the protected areas law (1992), and the water law (2005).

Despite these efforts, the high population growth rate Syria is experiencing has resulted in the over-exploitation of natural resources. This caused an imbalance in the overall environmental equilibrium. As a result, the demographic aspect of the problem evolved into an environmental issue with developmental and cultural dimensions that manifested in the ever-increasing gaps between the needs of the inhabitants in terms of food supplies and infrastructural services, such as education and health, vis-à-vis the outputs of social and economic development programs. In its most recent State of the Environment Report (MSEA 2006), the Syrian government presented strategies and priority actions for implementation in the fields of water resource management, land resources, protection of grazing lands and forests, biodiversity protection, protection of the coastal and marine environment, air quality, and solid waste management. The following paragraphs are based on this document.

- **Biodiversity.** Due to its moderate climatic conditions, Syria is considered one of the most biologically diverse countries in the world, with over 3,150 flora species and over 3,000 fauna species. All of these important species, many of them endemic to Syria, are under anthropogenic pressure, particularly as a result of the habitat destruction that has accompanied population growth, urban development, and an absence of strict enforcement of laws and regulations. A National Strategy and Action Plan on Biodiversity has been developed and was ratified by the Council for the Protection of the Environment and Sustainable Development in 2002. The strategy encompasses the establishment of protected areas, genetic banks, animal zoos, and botanical gardens, in addition to conducting awareness-raising campaigns for the local population, public participation in protection activities, development of new legislation, and related research activities.
- **Climate change.** Syria acceded to the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol in 1989, and in 1999 joined those countries that ratified the London, Copenhagen, and Montreal amendments. Syria does not produce any controlled substances under the Montreal Protocol; however, its energy sector is the main generator of carbon dioxide emissions. Syria has evolved to converting power generation processes from fuel oil to gas, since its ratification of the climate change convention in 1996, thereby reducing its CO_2 emissions. On the other hand, Syria is highly vulnerable to the impacts of climate change. Changes in precipitation will probably cause the main impacts regarding water supply and demand.
- **International waters.** Due to its arid climate, water resources in Syria are considered of fundamental importance for providing sustainable drinking water supplies and for ensuring irrigated agriculture which contributes to one-fourth of Syria's GDP. Syria shares six of its seven hydrologic basins with its neighbors including several surface water bodies such as the Euphrates and Orontes Rivers. Due to its growing population and increased economic activities, water resources in Syria are over-exploited and suffer from pollution and other human-induced pressures.
- **Persistent organic pollutants.** The release of POPs, including some pesticides and industrial chemicals, is a serious problem in Syria. Currently, Syria does not allow the importation of pesticides containing the nine persistent organic halogens. However, it is anticipated that

unknown quantities of previously used pesticides are currently leaching into the ground, which poses a serious threat to groundwater quality and a significant hazard to human health.

- **Land degradation.** Land degradation in Syria is manifested through desertification, soil salinity, and soil contamination. The main causes of land degradation are population growth, overexploitation of grazing lands, expansion of agriculture into marginal areas, lack of wastewater treatment, and unregulated and excessive water demand and abstraction. Soil salinity is most visible in the Euphrates Valley due to unregulated irrigation, whereas soil contamination is common near industrial areas and in the proximity of human settlements. Currently, about 17 percent of Syria's agricultural lands are classified as severely degraded due to excessive use of pesticides, poor agricultural practices, or use of untreated wastewater in irrigation.

The GEF has invested about $12.7 million (with about $32 million in cofinancing) through 10 national projects (5 biodiversity, 2 climate change, 2 POPs, 1 multifocal) and the Small Grants Programme. Table A.1 breaks down GEF support according to focal area and GEF Agency.

Table A.1

GEF Support to National Projects by Focal Area and Agency
million $

Focal area	UNDP	UNEP	WB	FAO	SGP
Biodiversity	3.814	0	0.750	0	0
Climate change	4.610	0	0.750[a]	0	0
POPs	0	0.469	0	0.975	0
Multifocal	0.200	0	0	0	0
Total	**8.624**	**0.469**	**1.500[a]**	**0.975**	**1.099**

Note: WB = World Bank.
a. One project worth $0.750 was canceled.

This portfolio of projects will be the main focus of the evaluation. In biodiversity, GEF support has concentrated on conservation and management of protected areas; in climate change, it has focused on increasing efficiency of the hydrocarbon sector by using natural gas. For POPs, the focus is on the prevention and disposal of POPs and obsolete pesticides in Syria. UNDP has been the main channel for GEF support to Syria. Syria has also received GEF support through the SGP. This program has been in existence in the country since 2005. GEF support also includes a series of enabling activities for all the focal areas as requested and required by the international conventions for which the GEF serves as financial mechanism. Financing for the enabling activities supported by the GEF is about $1 million. In addition, Syria has participated in 11 initiatives financially supported by the GEF with a regional or global scope. Table A.2 breaks down these projects.

Table A.2

Number of GEF Regional and Global Projects in Which Syria Participates by Focal Area and Agency

Focal area	UNDP	UNEP	WB	Total
Biodiversity	3	4	0	**7**
Climate change	1	0	0	**1**
International waters	0	1	1	**2**
Land degradation	0	0	0	**0**
POPs	0	1	0	**1**
Multifocal	0	1	1	**2**
Total	**4**	**7**	**2**	**13**

Note: WB = World Bank.

A.2 Objectives of the Evaluation

Based on the overall purpose (above) of the GEF CPEs, the evaluation for Syria will have the following specific objectives:

- Independently evaluate the *relevance* and *efficiency* of GEF support in a country from several

points of view:[2] national environmental frameworks and decision-making processes, the GEF mandate and achievement of global environmental benefits, and GEF policies and procedures.

- Assess the *effectiveness* and *results* of completed and ongoing projects in each relevant focal area.[3]
- Provide additional evaluative evidence to other evaluations conducted or sponsored by the GEF Evaluation Office.
- Provide *feedback* and *knowledge sharing* to (1) the GEF Council in its decision-making process to allocate resources and to develop policies and strategies, (2) the country on its participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF support.

The CPE will also be used to provide information and evidence to other evaluations conducted by the GEF Evaluation Office, evaluation of the catalytic role of the GEF, and the Fourth Overall Performance Study. The evaluation will address the performance of the GEF portfolio in terms of relevance, efficiency, and effectiveness as well as contributing factors to this performance. The CPEs do not have an objective of evaluating or rating the performance of the GEF Agencies, partners, or national governments. The evaluation will analyze the performance of individual projects as part of the overall GEF portfolio, but without rating such projects.[4]

A.3 Key Evaluation Questions

The GEF CPE will be guided by the following key questions:

- **Relevance of GEF support**
  - Is GEF support relevant to Syrian five-year development plans and environmental priorities, its development needs and difficulties, and its action plans in the GEF focal areas?
  - Is Syria supporting the GEF mandate and focal area programs and strategies with its own resources and/or support from other donors?
  - Is GEF support relevant to the achievement of the GEF mandate and strategic objectives?
  - Is GEF support relevant to GEF Agency strategies?
- **Efficiency of GEF support**
  - How much time, effort, and money are needed to develop and implement projects, by GEF support modality?
  - What are the roles, types of engagement, and coordination mechanisms among different

[2] *Relevance:* the extent to which the objectives of the GEF activity are consistent with beneficiaries' requirements, country needs, global priorities, and partner and donor policies, including changes with time; *efficiency:* the extent to which results have been delivered with the least costly resources possible (funds, expertise, time, and so on). Efficiency is also called cost-effectiveness or efficacy.

[3] *Effectiveness:* the output, outcome, or impact (intended or unintended, positive and/or negative) of a GEF activity; *results:* the extent to which the GEF activity's objectives were achieved or are expected to be achieved, taking into account their relative importance.

[4] In the first evaluation mission conducted from October 8–16, 2008, the GEF was briefed on a number of issues related to project efficiency, such as the length of time needed for project preparation, money spent on consultants, lengthy GEF approval procedures, and even cancellation of some projects. Project sustainability after completion was also an issue raised by national focal points, particularly for those that required the implementation of strategies and action plans. Special consideration will be given to these issues in this evaluation.

stakeholders in project implementation? In particular, what is the national mechanism for GEF implementation?

- How successful is dissemination of GEF project lessons and results?
- How efficient is the GEF focal point mechanism?

- **Results and effectiveness of GEF support**
  - What are the results (impacts and outcomes) of completed (and if appropriate, ongoing) projects, according to focal area frameworks and cross-cutting issues (that is, catalytic effects, institutional sustainability, capacity building, and awareness)?
  - What are the aggregated results at the focal area and country levels?
  - What is the likelihood that objectives will be achieved for those projects that are still under implementation?
  - What is the sustainability of GEF support?[5]

Each question is supported by the preliminary evaluation matrix in annex B. The matrix contains a tentative list of indicators or basic data, potential sources of information, and methodology components and will be validated or further developed by the evaluation team once the evaluation work starts. The evaluation will use as a basis the indicators in the GEF project documents, indicators of each of the focal areas and the RAF, as well as any appropriate national sustainable development and environmental indicators. Past evaluations have mentioned weaknesses in monitoring and evaluation at the project and GEF program levels and may pose challenges to the assessment. Not all the information is quantitative.

A.4 Scope and Limitations

The Syria CPE will cover all types of GEF-supported activities in Syria implemented by all the GEF Agencies in all focal areas, including applicable GEF corporate activities, such as the Small Grants Programme. In addition, all regional and global projects in which Syria participated will be reviewed. The objective of this part of the evaluation will be to present overall GEF support to Syria through these types of projects, reported results within Syria, and a description of the ways in which Syria participated in them. There will be no attempt at conducting a full assessment of their aggregate relevance, results, and efficiency. In principle, the stage of the project will determine the expected focus as indicated in table A.3.

Table A.3

Focus of Evaluation by Project Status

Project status	Relevance	Efficiency	Effectiveness	Results
Completed	Full	Full	Full	Full
Ongoing	Full	Partially	Likelihood	Likelihood
In pipeline	Expected	Processes	n.a.	n.a.
SGP	Expected	Processes	Likelihood	Likelihood

Note: n.a. = not applicable. The main focus of the evaluation will be relevance and efficiency; it will explore possible methodologies on how to evaluate project effectiveness and results.

GEF support is provided through partnerships with many institutions, so it is challenging to consider GEF support separately. The CPE will not attempt to provide a direct attribution of development results to the GEF, but address the contribution of GEF support to the overall achievements, that is, to establish a credible link between what the GEF supported and its implications. The evaluation will address how GEF support has functioned in partnership with others through

[5] *Sustainability:* the likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. The CPE will address three dimensions of sustainability: economic, institutional, and environmental.

questions on roles and coordination, synergies and complementarities, and knowledge sharing.

Of the five national projects approved by the Council for Syria, only one full-size project has been completed, one medium-size project was canceled with disbursement, another was canceled without disbursement and the other two are either under implementation or are in the approval process. Three enabling activities generating reports to the CBD have been completed, and one resulted in a national implementation plan for the Stockholm Convention. The SGP is also active in Syria.

In addition, the context in which these projects were developed and approved and are being implemented constitutes a focus of the evaluation. The context will include a historical assessment of the environmental policies, strategies, and priorities; the legal environment in which these policies are implemented and enforced; GEF Agency country strategies and programs; and GEF policies, principles, programs, and strategies. It would include consideration of baselines, absorptive capacity, and institutional development.

A.5 Methodology

The evaluation methodology includes a series of components using a combination of qualitative and quantitative methods and tools. The *qualitative* aspects of the evaluation include a desk review of existing documentation. The expected sources of information include the following:

- At the *project level*, project documents, project implementation reports, terminal evaluations, reports from monitoring visits, and documents produced by projects
- At the *country level*, national development programs, environmental priorities and strategies, GEF-wide focal area strategies and action plans, the GEF-supported National Capacity Self-Assessment, and global and national environmental indicators
- At the *Agency level*, country assistance strategies and frameworks and their evaluations and reviews, specifically from the World Bank, UNDP, FAO, and UNEP
- *Evaluative evidence* at the country level from GEF Evaluation Office evaluations, such as the Joint Evaluation of the GEF Activity Cycle and Modalities and the overall performance studies, or from national evaluation organizations
- *Statistics and scientific sources*, especially for national environmental indicators
- *Interviews* with GEF stakeholders, in addition to all other relevant government departments (for example, agriculture, environmental affairs), other bilaterals and multilaterals, NGOs in Syria, the GEF Agencies, the SGP, and all national convention focal points
- *Interviews* with GEF beneficiaries and supported institutions, municipal governments and associations, and local communities and authorities
- *Field visits* to project sites
- Information from national consultation *workshops*

The *quantitative* analysis will use indicators to assess the relevance and efficiency of GEF support using projects as the unit of analysis (that is, linkages with national priorities, time and cost of preparing and implementing projects, and so forth) and to measure GEF results (that is, progress toward achieving global environmental impacts) and performance of projects (such as implementation and completion ratings).

The evaluation team will use standard tools and protocols for the CPEs and adapt these to the Syrian context. These tools include a project review

protocol to conduct the desk and field reviews of GEF projects and questionnaires to conduct interviews with different stakeholders. Two project review protocols will be developed: one for nationally implemented projects and another for regional/global projects.

A selection of projects will be visited. The criteria for selecting them will be finalized during the implementation of the evaluation, but emphasis will be placed on completed projects and those clustered within a particular geographic area, given time and financial resource limitations. The evaluation team will decide on specific sites to visit, based on the initial review of documentation and balancing the needs of representation and cost-effectiveness in conducting the field visits.

A.6 Process and Outputs

Based on an initial GEF Evaluation Office visit to Syria in October 2008, these country-specific terms of reference have been prepared. The evaluation team will complete the following tasks:

1. Collect information and conduct a literature review to extract existing reliable evaluative evidence.
2. Prepare specific inputs to the evaluation:
   - *GEF portfolio database*, which describes all GEF-supported activities within the country, basic information (GEF Agencies, focal areas), implementation status, project cycle information, GEF and cofinancing financial information, major objectives and expected (or actual) results, key partners per project, and so on
   - *Country environmental framework*, which provides the context in which GEF projects have been developed and implemented (this framework may already be available, prepared by GEF Agencies or national governments); this document will be based on information on environmental legislation, environmental policies of each government administration (plans, strategies, and so on), and the international agreements signed by the country presented and analyzed through time so as to be able to connect with particular GEF support
   - *Global environmental benefits assessment*, which provides an assessment of the country's contribution to the GEF mandate and its focal areas based on appropriate indicators, such as those used in the RAF (for climate change and biodiversity) and others in project documents
3. The evaluation team conducts the evaluation, including at least one visit by GEF Evaluation Office representatives.
4. The GEF Evaluation Office conducts a visit to present the draft report at a consultation workshop with major stakeholders.
5. Prepare the final report, incorporate comments, and present to the GEF Council and the recipient government.

As indicated above, the GEF focal point will be an intrinsic and essential partner in this evaluation. The GCEA has been requested to provide support to the evaluation, such as identifying key people to be interviewed; communicating with relevant government departments; supporting organization of interviews, field visits, and meetings; and identifying main documents. The GEF Agencies will be requested to provide support to the evaluation on their specific projects or activities supported by the GEF, including identification of key project and Agency staff to be interviewed, participation in interviews, arrangement of field visits to projects, and provision of project documentation and data.

The main output of the evaluation will be an evaluation report to be finalized by April 2009. The GEF Evaluation Office will bear full responsibility for the content of the report. The draft report will be presented in a stakeholder workshop in Syria for government officials and national stakeholders, including project staff, donors, and GEF Agencies, on March 4, 2009.

The evaluation will be conducted between October 2008 and April 2009. Table A.4 presents the key milestones of the evaluation.

Table A.4

Evaluation's Key Milestones

Milestone	Deadline
1. GEF Evaluation Office first visit to Syria to launch evaluation and discuss draft terms of reference with key GEF stakeholders	October 12–18, 2008
2. Contract consultants based in Syria	November 30, 2008
3. Country-specific terms of reference	December 12, 2008
4. Project review protocol and questionnaires	January 31, 2009
5. Desk review of national, regional, and global projects	January 31, 2009
6. Global environmental benefits assessments and environmental framework for Syria	January 31, 2009
7. Field visits	January 4–31, 2009
8. Interviews with stakeholders	January 4–31, 2009
9. Second GEF Evaluation Office visit to complete interviews, conduct additional field visits, and begin drafting report	January 4–8, 2009
10. Draft report to key stakeholders	February 25, 2009
11. National consultation workshop to present draft	March 4, 2009
12. Final CPE Syria	June 2009

Annex B. Evaluation Matrix

Item/key question	Information/ indicator/basic data	Sources	Methodology
1. Context of the evaluation			
1.1 General description	• Human development profile • Social and economic context of environmental issues • Status of each focal area in Syria	• Central Bureau for Statistics 2008 • UNDP 2005b • MSEA 2006 • 10th five-year plan (2006–10)	
1.2 Brief description of environmental resources in key GEF support areas	Potential global benefits: • Biodiversity potential and actual status • Climate potential and actual status • Land degradation and desertification • POPs potential and actual status • International waters potential and actual status	• Frameworks and action plans: MSEA 1998a and b, MSEA 2006, MSEA 2008 • Reports: Syrian Society for Conservation of Wildlife 2008; ESRC 2000; IEA 2009; Kraidy 2007; Meslmani 2009a and b; MAAR 2006; GTZ, KfW, and BGR 2004	
1.3 The environmental legal and policy framework in Syria	• Outline legal and policy framework and ratification of protocols • Adequacy, ownership, and alignment • Development and environment strategy, plans including targets and budgets, and future trajectory: sustainability, commitment, and coherence	• NEAP 2001 • 8th five-year plan (1996–2000) • 9th five-year plan (2001–05) • 10th five-year plan (2006–10)	
1.4 The GEF: general description	• Brief overview of GEF-1 to GEF-4 and IA involvement • GEF-4 and RAF and allocations for Syria • Syria focal point mechanism	• Other CPE documents • IA interviews with UNDP and SGP • Interviews with the national GEF focal point	

Item/key question	Information/ indicator/basic data	Sources	Methodology
2. Activities funded by the GEF			
2.1 Activities considered in the evaluation	Agreed national and regional projects		
2.2 Activities over time	Activities over time and by IA and by modality; activities by focal area breakdown by number and budget and modality; activities by GEF Executing Agencies; activities by GEF phase; SGP	• Evaluation Office database and completed project protocols • IA records	
2.3 Evolution of GEF funding to the country	• For different GEF phases by IA, focal area, and modality • Cofinancing Syria's contribution to replenishment fund for each GEF phase	• Evaluation Office database and completed project protocols • IA records • IA interviews	
3. Results of GEF support			
3.1 What are the aggregated results by focal area on the national, regional, and global levels?	Global environmental impacts for each of the focal areas are identified	• Project data in protocols and project documents • GEF midterm and final evaluation documents • IA evaluation documents • IA personnel involved in project development, monitoring, and follow-up (UNDP) • GEF Executing Agencies, government officials, project staff, and other key stakeholders where necessary	• Analysis of project data and portfolio in terms of project protocol • Project documents • Document review • Interviews in person and by phone if necessary • Global environmental benefits assessment • Field visits
3.2 What are the cross-cutting results in terms of catalytic and replication effects?	Potential catalytic and replication effects of projects identified in project design are realized		
3.3 What are the cross-cutting results in terms of policy change and institutional sustainability?	Set of required enabling factors, including institutional set-ups, policies, strategies, and monitoring and evaluation frameworks, assessed and addressed in project design and in results		
3.4 What are the cross-cutting results in terms of individual and organizational capacity building?	Capacity needs assessment conducted with institution(s) with the mandate and addressed in project design and results		
3.5 What are the cross-cutting results in terms of increased awareness?	• Evidence of improved awareness as a result of project activities • Evidence of changed behavior attributable to project activities		
3.6 What is the likelihood that objectives will be achieved for those projects that are still under implementation?	Assessment of ongoing projects in terms of their ability to achieve objectives		

Item/key question	Information/ indicator/basic data	Sources	Methodology
4. Relevance of GEF support			
4.1 Is GEF support relevant to Syria's five-year development plans?	• GEF support in all its phases is within the country's priorities and identified interventions in the five-year national development plans • Beneficiaries and benefits identified • GEF support has Syrian ownership, evident in project origin, design, and implementation • Relative weight of different focal areas and alignment with Syria's strategies and environmental policies and plans	Documents: • 8th five-year plan (1996–2000) • 9th five-year plan (2001–05) • 10th five-year plan (2006–10) • Analysis of project design information and results using project protocols	• Document review and analysis of national development five-year plans • Analysis of projects and portfolio
4.2 Is GEF support relevant to national environmental priorities?	• Alignment with the NEAP and relevant policies • Alignment with specific action plans: – National Strategy and Action Plan on Biodiversity – NIP (POPs) – National Action Programme (land degradation)	Documents: • NEAP • National action plans in each focal area and GEF-supported enabling activities • Analysis of project objectives and results based on project protocol • Government officials, NGOs, and Agencies • Project reviews	• Document review and analysis of country-level information • Desk review of country strategies and plans • Review IA country strategies • Portfolio analysis • Interviews
4.3 Is GEF support relevant to local and national development needs and challenges?	• Priority development needs are supported (capacity building and income generation) and challenges reduced • Different types of GEF modalities and components (enabling activities, MSPs, FSPs, SGP, PDF, GEF Agencies, or technical support) align with the country's needs and challenges	• SGP country strategy • Analysis of SGP projects portfolio • NCSA • Interviews with government officials, local communities, and authorities and beneficiaries • Analysis of project objectives and results for capacity-building and awareness-raising components	• Document review and analysis of relevant country-level information • Review on national and regional project documents • Review of IA documents • Interviews • Portfolio analysis
4.4 Is the country supporting the GEF mandate and focal area programs and strategies with its own resources and/or support from other donors?	Amount and percentage of cofinancing by source and focal area	• Project protocol and analysis of cofinancing • Database of projects	• Document review of relevant country-level information • Analysis of project information and database on cofinancing • Interviews

Item/key question	Information/ indicator/basic data	Sources	Methodology
4.5 Is GEF support relevant to the GEF mandate and strategic objectives?	Evidence that GEF support is maximizing potential global benefits based on analysis of alignment between aggregated project outcomes and impacts in each focal area	• Project documents, analysis of project objectives and results in each focal area • GEF focal area strategies, GEF-1 to GEF-4 documents on programs and monitoring and evaluation frameworks	GEF portfolio analysis with protocols
4.6 Is GEF support relevant to GEF Agency strategies and frameworks?	Relevance to strategies and frameworks of GEF Agencies (UNDP)	• Analysis of project objectives and results • GEF Agency strategies • Key staff of IAs (UNDP)	• Analysis of portfolio • Desk review of GEF Agency-level information • Interviews
5. Efficiency of GEF support			
5.1 How much time, effort, and financial resources does it take to develop and implement projects, by GEF support modality?	• Preparation costs (any PDF or project preparation grants?) • GEF Agency project fee • How much of project budget is for management and implementation cost? • Is economy and efficiency evident from comparing inputs to outputs and rate? • To what extent has the project identified and operationalized "win-win" outcomes? • To what extent has the project assessed and incorporated the trade-offs between environment and development issues? • What is the average time taken to achieve each milestone in the project cycle by modality and focus area and by GEF phase and IA? • Projects not progressing past PDF, cancellations	• Analysis of information in project protocols, including project budgets and staff, monitoring and evaluation budgets, and activities and RAF pipeline • External evaluation documents of closed projects • Interviews with GEF Secretariat, Agencies, and government • Joint Evaluation of the GEF Activity Cycle • Field visits	• Collation and analysis of data in project protocols • Review of project evaluations and GEF project cycle documents • Interviews • Project field visits
5.2 What are the roles, types of engagement, and coordination among different stakeholders in project implementation?	• Level of participation of actors and stakeholders in key phases of the project cycle • Beneficiaries identified and analyzed, and appropriate engagement strategy implemented • Actors' roles and responsibilities and their clarity • Coordination among projects planned and implemented	• Analysis of information in project protocols • External evaluation documents of closed projects • Interviews with project staff, beneficiaries, and other actors • Interviews with GEF Agencies	• Collation and analysis of data in project protocols • Review of project evaluations • Field visits and interviews • Interviews

Item/key question	Information/ indicator/basic data	Sources	Methodology
5.3 How good is the dissemination of GEF project lessons and results?	• Deliberate and effective anticipation at project design to ensure reliable learning and a sound basis for assessing replicability, as well as provision for dissemination of learning • Lessons from previous projects within and outside the GEF incorporated in project design, preparation, and implementation	• Analysis of information in project protocols • External evaluations of projects • Interviews with project staff • Interviews with GEF Agencies	• Collation and analysis of data in project protocols • Document review • Interviews • Field visits
5.4 What is the national mechanism for GEF implementation (such as the GEF focal point mechanism in the country)?	• Development of country strategy, approach, or priorities • Quality and adequacy of information on projects available and used • Role in ensuring alignment and coordination • Contribution to dissemination of learning • Achievement of commitments and responsibilities related to focal point role • Clear communication with national stakeholders on GEF policies and procedures • Clear communication to GEF and its Agencies	• Interviews with the GEF national focal point in the MSEA and other key GEF stakeholders • Project protocols and evaluations	• Document review • Interviews • Analysis of GEF portfolio and project documents

Annex C. Objectives and Outcomes of GEF Projects

Table C.1

Objectives and Outcomes of National Projects

Supply-Side Efficiency and Energy Conservation and Planning (GEF ID 264)	
Project objective	(1) Remove perceived risks associated with the installation and operation of efficiency and maintenance management systems in power generation facilities by demonstrating the effectiveness of technology and training plant staff in its operation and use; and (2) remove barriers to energy efficiency in industrial and commercial facilities by providing highly skilled energy audit and engineering services, project financing, and training and information to plant managers and operators promoting best practices for conservation and sustainable use of biodiversity of global significance in arid and semi-arid zones
Project outcomes	• Institutionalizing the provision of a broad range of energy efficiency services to all sectors of the Syrian economy • Implementation of a national energy efficiency program • The efficiency and maintenance management systems for units 1–4 of the Banias power station are operational, and the institutional basis for maintaining the efficiency levels of these units at the specified target level after project completion has been created • Replication of the efficiency and maintenance management systems in other Syrian power plants, facilitated by the establishment of an efficiency and maintenance management support team (central team) at the public establishment of electricity generation and transmission
Conservation of Biodiversity and Protected Areas Management (GEF ID 497)	
Project objective	(1) Strengthen Syria's ability to protect and manage biodiversity of global and national importance; and (2) protect and manage a priority demonstration site encompassing biodiversity of global importance
Project outcomes	• Maintenance and enhancement of the ecological value of the forest ecosystem in the pilot site • Avoidance of loss of important regional and global biodiversity • Enhancement of the importance of Syria's location on the Palearctic migratory flyways
Biodiversity Conservation and Protected Area Management (GEF ID 1169)	
Project objective	Demonstrate practical methods of protected area management that effectively conserve biodiversity and protect the interest of local communities while supporting the consolidation of an enabling environment that will facilitate replication and effective protected area management throughout the country
Project outcomes	• Policies, legislation, and institutional systems are in place that allow for the wise selection and effective operation of protected areas that conserve globally significant biodiversity • Effective techniques for protected area management and biodiversity conservation have been demonstrated at three sites totaling approximately 37,000 hectares and are available for replication • Sustainable use of natural resources in and around protected areas has been demonstrated through the development and implementation of a program for alternative sustainable livelihoods and community resource management

Table C.2

Objectives and Outcomes of Regional and Global Projects

Promoting Best Practices for Conservation and Sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones (GEF ID 23)	
Project objective	Promote best practices for conservation and sustainable use of biodiversity of global significance in arid and semi-arid zones
Project outcomes	• Increased availability of and access to information on best practices • Increased awareness by local populations of lessons and best practices • Increased awareness of the values of biodiversity of global significance in arid and semi-arid ecosystems • Increased coordination between institutions resulting in more effective programming of scarce resources • Increased partnership of institutions of excellence in the south working on similar issues resulting in increased capacity
Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent (GEF ID 400)	
Project objective	Promotion and sustainable conservation and utilization of agrobiodiversity in the Near East through farmer-based in-situ conservation of significant endemic wild relatives and land races
Project outcomes	• Survey and monitoring data to understand the causes of biodiversity degradation at project sites • Promote modified and alternative land use practices, through on-farm habitat and species management, for the sustainable use and conservation of the agrobiodiversity of the wild relatives and land races of project target crops, through awareness and capacity-building measures • Increase national capacity to deliver project training needs for conservation and sustainable use of agrobiodiversity • Agricultural and related legislative proposals, where appropriate and in the national interest, considered and adopted
Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea (GEF ID 461)	
Project objective	Support the activities of the Mediterranean Action Plan that are related to the implementation of the strategic action program to address pollution of the Mediterranean Sea from land-based activities, which was adopted by the contracting parties to the Barcelona Convention in 1997
Project outcomes	• Complete an analysis of the transboundary importance of the 103 hotspots identified in the transboundary diagnostic analysis of the Mediterranean Sea and the strategic action program for the Mediterranean Sea and finalize the priority list for intervention and investments (investments portfolio) (preinvestment studies will be conducted only in GEF-eligible countries) • Formulate and adopt principles, approaches, measures, timetables, and priority actions that address each major land-based source of pollution and assist countries in the implementation of such actions • Conduct preinvestment analysis of expected baseline and additional actions needed to address the selected hotspots, and secure recipient country agreement to baseline investment • Prepare and adopt at the regional level detailed operational guidelines for the formulation of national action plans for the protection of the marine environment from land-based activities • Help countries prepare, adopt at the highest level, and implement country-specific national action plans based on the regionally prepared and adopted guidelines • Identify roles for, and ensure effective participation of, NGOs in the implementation of components of the strategic action program, and, where appropriate, incorporate these into the national action plans and to address other transboundary issues

Table C.3

Objectives and Outcomes of National Enabling Activities

Biodiversity Strategy and Action Plan and Report to the CBD (GEF ID 419)	
Project objective	Help the national government meet its obligations under the CBD
Project outcomes	• National Strategy and Action Plan on Biodiversity prepared • Environmental awareness among policy makers and stakeholders raised
Additional Enabling Activity Support for Participation in the Clearing-House Mechanism of the CBD (GEF ID 813)	
Project objective	Help the national government meet its obligations under the CBD
Project outcomes	• Purchase information technology equipment for implementation of the CBD • Training course on development of databases
Assessment of Capacity-Building Needs and Country-Specific Priorities in Biodiversity (GEF ID 987)	
Project objective	Help the national government meet its obligations under the CBD
Project outcomes	• Assist the government of Syria in further assessing capacity-building needs, identifying Syria-specific priorities, analyzing institutional and functional capabilities, and determining mechanisms necessary to protect national biodiversity • Enable the MSEA to undertake the necessary consultative process required to prepare/adopt and submit the Second National Report on Biodiversity
Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Syria (GEF ID 1832)	
Project objective	Within the overall objective of the Stockholm Convention, which is to protect human health and the environment from POPs, the project will • prepare the ground for implementation of the convention in Syria, • help Syria meet its reporting and other obligations under the convention, • strengthen Syria's national capacity to manage POPs and chemicals generally.
Project outcomes	• NIP for the Stockholm Convention as required by Article 7 of the convention, including specific action plans and strategies required under Articles 5 and 6 • Reporting to the convention
National Capacity Self-Assessment for Global Environment Management (GEF ID 2230)	
Project objective	Provide an opportunity for the national stakeholders in Syria to articulate a thorough and participatory self-assessment and analysis of national capacity-building needs, priorities, and constraints for global environmental management
Project outcomes	• Identification of priority needs for action within and across the GEF thematic areas of biodiversity, climate change, and land degradation, catalyzing targeted and coordinated actions • Future funding to protect the global environment within the broader perspective of sustainable development

Table C.4

Objectives and Outcomes of Regional and Global Enabling Activities

Biodiversity Country Studies - Phase I (GEF ID 172)	
Project objective	Prepare a biodiversity country study for Syria
Project outcomes	• Ensure the protection and conservation of the broadest possible range of global biodiversity and its sustainable use • Enhance Syria's capacity to review the status of biodiversity and identify the basic needs for effective conservation and sustainable use of national biodiversity at the country level in light of social, economic, environmental, and other objectives • Identify the necessary supportive measures and costs to meet the needs as well as the benefits associated with implementation of these measures • Lay the foundation for the preparation and implementation of a National Strategy and Action Plan on Biodiversity
National Communications Programme for Climate Change (National Component - Enabling Activities for Preparation of Syria's Initial National Communication for UNFCCC) (GEF ID 2387)	
Project objective	Strengthen Syria's institutional and technical capacity to deal with climate change issues and mainstream climate change concerns into sectoral and national development priorities
Project outcomes	• Enable Syria to prepare and submit its INC to the UNFCCC and meet its obligations under the convention • Contribute to the ongoing global effort to better understand the sources and sinks of GHGs, potential impacts of climate change, and effective response measures to achieve the ultimate objective of the UNFCCC, which is "to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" • Help in identifying and developing projects related to climate change and mitigation of GHGs, which may be eligible also for further funding or cofunding by the GEF or other multilateral or bilateral organizations • Contribute to enhance general awareness and knowledge on climate change–related issues in Syria and strengthen the dialogue, information exchange, and cooperation among all the relevant stakeholders including the governmental, nongovernmental, academic, and private sectors in accordance with Article 6 of the UNFCCC and implementation of the Buenos Aires Plan of Action
Support to GEF-Eligible CBD Parties for Carrying Out 2010 Biodiversity Targets National Assessments - Phase I (National Component - 2010 Biodiversity Targets National Assessments) (GEF ID 3414)	
Project objective	Enable Syria to gather the necessary data for assessing 2010 indicators at the national level and to carry out a wide consultation process
Project outcomes	• Disseminating the importance of 2010 targets for the progressive implementation of the CBD at the country level • Linking, where relevant, reporting on progress toward the 2010 targets with progress in achieving other related global goals such as the Millennium Development Goals
Development of the National Biosafety Framework for the Syrian Arab Republic (GEF ID 2582)	
Project objective	Preparation of a National Biosafety Framework in accordance with the relevant provisions of the Cartagena Protocol on Biosafety
Project outcomes	• Strengthen national capacity to develop a regulatory biosafety framework for notifications and requests related to living modified organisms • Strengthen national capacity for the establishment of administrative systems to assist with screening notifications and requests for completeness, risk assessment, decision making within the time limits specified in the regulatory framework, and a mechanism for feedback • Framework with mechanisms for public participation and information

Building Capacity for Effective Participation in the Biosafety Clearing-House (GEF ID 2128)	
Project objective	Facilitate the exchange of scientific, technical, environmental, and legal information on, and experience with, living modified organisms, and assist parties in having access to information relevant to the implementation of the Cartagena Protocol and other international biosafety information exchange mechanisms
Project outcomes	• Strengthen capacity in the GCEA through training of key stakeholders • Create an enabling environment to meet Syria's obligations for implementation of the Cartagena Protocol by providing the GCEA with computer hardware and software for data storage and exchange with the Clearing-House over the Internet • Support further capacity building through the development and dissemination of an interactive computer-based training package

Annex D. Interviewees

Yaser Al-ahmad, Ecotourism, Abou Qubies Protected Area

Zena Ali Ahmad, Deputy Resident Representative, UNDP

Ismail Ould Cheikh Ahmed, Resident Representative, UNDP

Ahmed Hassan Ali, Planning Manager, Banias Thermal Power Generation Plant

Waheeb Aljari, Founder, Environmental Protection Society in Era

Fadi Almahmoud, Site Manager, Abou Qubies Protected Area

Mazen Almhanad, President, Society for Protection of Nature

Maher Arnouk, Council Member, Society for Protection of Nature

Nadia Attar, SGP Program Assistant

Firas Baddour, Site Manager, Fronloq Protected Area

Hsan Baddour, Agriculture Director, MAAR

Ibrahim Betelmal, World Health Organization Representative

Jamie Cavelier, Senior Biodiversity Specialist, GEF Secretariat

Akram Issa Darwish, Director for the Biodiversity and Protected Areas Directorate, GCEA, MSEA, and Biodiversity National Focal Point

George Daoud, Bird Researcher, Abou Qubies Protected Area

Housam Dayoub, Council Member, Society for Protection of Nature

Diana Deeb, Environmental Education, Abou Qubies Protected Area

Nuha Deeb, Social Economist, Abou Qubies Protected Area

Sabah Al Deen, Site Manager, Cedar and Fir Protected Area

Youssef Deleicy, Deputy Manger for Operations, Banias Thermal Power Generation Plant

Shadi Jameel Abu Derehmen, farmer, SGP Pilot Project for the Installation of Domestic Family-Size Biogas Units in Rural Sweida

Malek Doek, Fire Office, MAAR

Nazar Elfaki, Emergency Coordinator, World Health Organization

Ali Esmaiel, Resident Office Coordinator, Agha Khan Development Network

Mounir Fahd, Project Accountant and NGO member, Environmental Protection Society in Era

Tarek Gahloul, Forestry Directorate

Rafee Al Hallak, Energy Efficiency in Buildings, National Energy Research Centre, Ministry of Electricity

Jameel Ismail Al Harfoush; farmer, SGP Pilot Project for the Installation of Domestic Family-Size Biogas Units in Rural Sweida

Samira El Harfoush, Environmental Protection Society in Era

Mahmoud Hasan, Flora Researcher, Abou Qubies Protected Area

Imad Hassoun, Deputy Minister, MSEA, and GEF Focal Point

Saleh Hatem, Forest Department, MAAR

Belal Al Hayek, Coordinator, Biosafety, Biodiversity, and Protected Areas Directorate, GCEA; Biosafety National Focal Point

Oliver Jennes, Senior Manager, Power Generation Division, Banias Thermal Power Generation Plant

Mohamoud Karim, Director of Environmental, Communicable and Chronic Diseases, Ministry of Health

Ghassan Katthoum, Training and Scientific Cooperation Director, National Energy Research Centre, Ministry of Electricity

Naman Khadra, Head, Information Technology, Banias Thermal Power Generation Plant

Rams Khunisah, Head, Power Generation Division, Banias Thermal Power Generation Plant

Mohamad Kordab, former Renewable Energy Expert, ESCWA, Environmental Protection Society in Era

Ashraf Kraidy, Head, Energy Regulation Department, National Energy Research Centre, Ministry of Electricity

Andrea Kutter, Senior Natural Resources Specialist, GEF Secretariat

Ousama Lazini, Environmental Sector Cooperation Program Manager, Japanese International Cooperation Agency

Nabil R. Mahaini, Proxy Field Representative, IFAD

Adib Al Masri, Project Management Unit (POPs), GCEA

Magdy Menshawy, Country Director, Syria and Lebanon

Yousef Meslmani, National Project Director, INC for UNFCCC (National Component), UNDP

Ghada Muhjazi, Technical Officer, World Health Organization

Mayumi Murakami, Assistant Resident Representative, Japanese International Cooperation Agency

Haitham Nashawati, Director, Climate Change Directorate, GCEA; Climate Change National Focal Point

Yasser Nassour, Fauna Researcher, GIS, Abou Qubies Protected Area

Osama Al Nouri, Syrian Society for Conservation of Wildlife

Martina Quick, First Secretary and Deputy Head of Mission, Embassy of Sweden

Reem Abd Rabboh, Director, Water Safety Directorate, GCEA, and Mediterranean Action Programme National Focal Point

Adnad Saad, National Project Director, Biodiversity Conservation and Protected Area Management, UNDP

Mohammed Seifo, Resident Representative, Agha Khan Development Network

Khaled Al Shara'a, Director, Land Degradation Directorate, GCEA, and UNCCD Focal Point

Mohamad Al Sheikh, Head, Maintenance, Banias Thermal Power Generation Plant

Mohammed Khalil Sheki, Deputy General Director, National Energy Research Centre, Ministry of Electricity

Yassin Shukhur, Technical Officer, World Health Organization

Firas Shuman, National Coordinator, Syria SGP

Raid Tarkho, Site Manager, Jebel Abdul Aziz Protected Area

Akiko Tomito, Japanese International Cooperation Agency Resident Representative

Ahmad Al Tubji, Energy Efficiency in Buildings, National Energy Research Centre, Ministry of Electricity

Ahmad Al Umari, Regional Director, Conservation and Sustainable Use of Dryland Agrobiodiversity of the Fertile Crescent, International Center for Agricultural Research in the Dry Areas

Muhammad Wardeh, former Director, NCSA project

Samy Yacoub, Council Member, Society for Protection of Nature

Abdulla Tahir Bin Yehia, Representative, FAO

Abir Zeno, Energy and Environment Team Leader, UNDP

Annex E. Sites Visited

Fronloq Protected Area, October 2008

Cedar and Fir Protected Area, October 2008

Abou Qubies Protected Area, January 2009

Banias Thermal Power Generation Plant, January 2009

Rural Sweida, for installation of two domestic family-size biogas units, January 2009

Annex F. Workshop Participants

The following people participated in the consultation workshop held March 4, 2009, at the University of Damascus Rida Saiid Conference Centre.

Akram Issa Darwish, Director, Biodiversity and Protected Areas Directorate, GCEA, and Biodiversity National Focal Point

Surour Nasser Al Deen, Journalist, Esyria.sy

Tarek Genena, Consultant, EcoConServ Environmental Solutions

Rafee Hallak, Energy Efficiency in Buildings, National Energy Research Centre, Ministry of Electricity

Imad Hassoun, Deputy Minister, MSEA, and GEF Focal Point

Belal Al Hayek, Coordinator, Biosafety, Biodiversity, and Protected Areas Directorate, GCEA; Biosafety National Focal Point

Mohamad Kayyal, Evaluation Team

Ousama Lazini, Environmental Sector Cooperation Program Manager, Japanese International Cooperation Agency

Adib Al Masri, Director, Chemical Safety Directorate, GCEA

Bassimah Medour, Syrian Society for the Environment

Magdi Al Menchawi, Regional Director, GTZ

Youssef Meselmani, Director, UNFCCC INC

Haitham Nashawati, Director, Climate Change Directorate, GCEA; Climate Change National Focal Point

Osama Al Nouri, Syrian Society for Protection of Wildlife

Reem Abd Rabboh, Director, Water Safety Directorate, GCEA, and MAP National Focal Point

Adnad Saad, National Project Director, Biodiversity Conservation and Protected Area Management, UNDP

Anissah Seidawi, Syrian Society for the Environment

Rana Shanawani, CEO, Bidaya (NGO)

Khaled Al Shara'a, Director, Land Degradation Directorate, GCEA, and UNCCD Focal Point

Firas Shuman, National Coordinator, Syria SGP

Nazieh Tanous, National Energy Research Centre, Ministry of Electricity

Ahmad Al Tubji, Energy Efficiency in Buildings, National Energy Research Centre, Ministry of Electricity

Anna Viggh, Evaluation Team

Claudio Volonté, GEF Evaluation Office

Muhammad Fadel Wardeh, former Director, NCSA project

Abd Al Raouf Yehya, former Director, Supply-Side Efficiency and Energy Conservation and Planning project

Abir Zeno, Energy and Environment Team Leader, UNDP

Omar Yassen Zuriek, Director, Protected Areas, MAAR

Annex G. Small Grants Programme Projects

No.	Project name	Grant recipient	Grant ($)	Approval date
1	Community-Based Rehabilitation and Conservation of Dalha Lake in Raqa	Fishers Association in Dalha	44,570	9/19/2005
2	Pilot Project for the Installation of Domestic Family Size Biogas Units in Rural Swida	Wafa for People with Special Needs	27,102	9/19/2005
3	National Strategy for Sustainable Development in Syria	Fund for Integrated Rural Development of Syria	10,000	9/19/2005
4	Establishing Environmental Awareness Center in Deir Ezour	Volunteers for the Environment in Deir Ezour	35,587	9/19/2005
5	Introducing Water Saving Techniques Using Solar Energy in an Environmental Garden in Dummar	Damascus Friends Association	43,982	9/19/2005
6	Sustaining Livelihoods and Land Resources in the Olive Mountains of Northwest Syria	Sustainable Land Management Committee at Khaltan Village	49,418	4/4/2006
7	Using Solar Energy for Pumping Irrigation Water in Abed Village	Farmers Association in Abed Village	49,650	4/4/2006
8	Environment Program in Hajar al-Aswad: Place-Based Education and Creation of a Botanic Garden	Zahret Al Mada'en	28,126	4/4/2006
9	Rehabilitation of Land and Planting Medicinal Herbs in Agez Village	Committee for Land Rehabilitation and Planting Medicinal Herbs in Agez Village	49,400	4/4/2006
10	Implementation of an Ecotourist Center in Wadi Deir Mar Musa Protected Area	Deir Mar Musa	50,000	4/4/2006
11	Community-Based Range Rehabilitation	Jub Ali El-Ahmed Range and Livestock Community	50,000	12/11/2006
12	Environment-Friendly Workshop for Traditional Handcrafts in Sahl El Daw	Women's Unit in Palmyra	50,000	7/3/2006
13	Establishing an Environmental Camp in Kasab	Committee for Protection of Kasab Forests	50,000	12/11/2006
14	Farm Animal Genetic Resources Survey and Fixing Property Rights in Syria	Syrian Society for Intellectual Property	50,000	12/11/2006
15	Nursery Establishment for Biodiversity in Nabek Region	Nabek Friends Association	50,000	12/11/2006
16	Developing Alternative Agriculture in Bustan Ein Al-Tibeh-Qara	Deir Mar Yaacoub	50,000	4/3/2007
17	Atmospheric Purification in Damascus through Utilization of Catalyzers	Syrian Society for Preventing Road Accidents	42,000	4/3/2007

No.	Project name	Grant recipient	Grant ($)	Approval date
18	Pro-Environment Club for Children	Environmental Protection Society in Era	50,000	4/3/2007
19	Revival of Silkworm Raising and Silk Production in Deir Mama	Farmers Association of Deir Mama	50,000	4/3/2007
20	Revival of Silkworm Raising and Silk Production in Dreikich	Women's Unit in Dreikich	50,000	4/3/2007
21	Environmental Village in Deir Ezzour*	Expatriates Club in Deir Ezzour	50,000	4/3/2007
22	Promoting Uses of Information and Communication Technologies That Deliver Environmental, Social, and Economic Benefits	Syrian Computer Society	50,000	4/3/2007
23	Pilot Project for Conservation of Biodiversity and Limited Natural Resources in Four Villages in Jabal Abdul Aziz Reserve	Development Committee in Four Villages of Jabal Abdul Aziz Reserve	50,000	12/3/08
24	Land and Water Management, Diversification, and Microcredits to Combat Land Degradation and Improve Livelihoods in the Mountains of Afrin	Land Management and Diversification Committee of Maghara	50,000	9/24/08
25	Improving the Conservation Status of Globally Threatened Birds at Jaboul Wetland	Syrian Society for Conservation of Wildlife	50,000	7/30/08
26	National Competition for Environmental Inventions for Climate Change Mitigation and Adaptation	Syrian Environment Association	50,000	7/30/08
27	Promoting Corporate Social Responsibility by Spreading Awareness on Minimizing the Consumption of Natural Resources	Junior Chamber International	19,410	7/30/08

Note: * = Project was canceled.

Annex H. Country Response

Syrian Arab Republic
Ministry of State for Environmental Affairs

الجمهوريـــة العربيـــة السوريـــة
وزارة الدولة لـــشؤون الـــبيئـــة

Damascus, 26 May 2009

Monique Barbut
Chief Executive Officer
Global Environment Facility
1818 H-Street NW
Washington D.C. 20433, USA
Email: secretariat@thegef.org

Subject: **GEF Country Portfolio Evaluation-Syria (1994-2008)**

Dear Ms. Barbut

Reference to the Country Portfolio Evaluation for Syria which was conducted between September 2008 and April 2009, we would like to extend our sincere appreciation for the time and effort exerted by the GEF evaluation office for undertaking this evaluation, particularly with reference to assessing results, impacts, relevance and projects' efficiency.

The results of the Country Portfolio Evaluation which included 10 national projects with an estimated GEF investment of $12.7 million have provided us with significant information on the results and outcomes of these projects and will assist us in developing future proposals in the GEF focal areas.

We are pleased of the conclusion reached by the GEF evaluation team that country ownership of the GEF portfolio is strong for national projects; concur that GEF support did not address the national priorities relevant to in-land international waters and land degradation; and strongly agree with the recommendation that GEF should increase its funding for land degradation and water management issues.

We also support the GEF evaluation team conclusion that Syria has limited access to GEF investment agencies and the recommendation that GEF should focus attention on countries in exceptional situations concerning limited access to GEF investment agencies.

Finally, we agree about the need to strengthen the national focal point mechanism and to establish a permanent GEF national coordination committee. We also support the need to adopt a proactive role in creating appropriate financial instruments, and in setting-up necessary legislative and institutional frameworks to ensure the sustainability of GEF projects results.

In summary, the Syrian Government concurs with the GEF evaluation team conclusions and recommendations. The Syrian Government will further undertake the necessary measures to implement these recommendations, and looks forward to a fruitful cooperation that addresses its national priorities with the Global Environmental Facility in the upcoming GEF phases.

Yours truly;

Imad Hassoun
Deputy Minister of State for Environmental Affairs
GEF National Focal Point for Syria

Ministry of State for Environmental Affairs, 17 April Street, P.O. Box: 3773, Damascus, Syria. Tel: +963-11-213 6071

References

Following is a list of the publications and documentation cited in the body of this report. Publications of the GEF are available at this link: **www.thegef.org/gef/gef_Documents_Publications**. Publications cited for the GEF Evaluation Office are available at **www.thegef.org/** under Evaluations & Studies and in the online documents database ASK ME. All Web links cited here were accessed March 2009, unless otherwise indicated.

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Number	Title	Year
Evaluation Reports		
51	GEF Country Portfolio Evaluation: Egypt (1991–2008)	2009
50	GEF Annual Country Portfolio Evaluation Report 2009	2009
49	GEF Annual Performance Report 2008	2009
48	GEF Annual Impact Report 2008	2009
47	Midterm Review of the Resource Allocation Framework	2009
46	GEF Annual Report on Impact 2007	2009
45	GEF Country Portfolio Evaluation: Cameroon (1992–2007)	2009
44	GEF Annual Country Portfolio Evaluation Report 2008	2008
43	GEF Country Portfolio Evaluation: South Africa (1994–2007)	2008
42	GEF Country Portfolio Evaluation: Madagascar (1994–2007)	2008
41	GEF Country Portfolio Evaluation: Benin (1991–2007)	2008
40	GEF Annual Performance Report 2007	2008
39	Joint Evaluation of the GEF Small Grants Programme	2008
38	GEF Annual Performance Report 2006	2008
37	GEF Country Portfolio Evaluation: Samoa (1992–2007)	2008
36	GEF Country Portfolio Evaluation: The Philippines (1992–2007)	2008
35	Evaluation of the Experience of Executing Agencies under Expanded Opportunities in the GEF	2007
34	Evaluation of Incremental Cost Assessment	2007
33	Joint Evaluation of the GEF Activity Cycle and Modalities	2007
32	GEF Country Portfolio Evaluation: Costa Rica (1992–2005)	2007
31	GEF Annual Performance Report 2005	2006
30	The Role of Local Benefits in Global Environmental Programs	2006
29	GEF Annual Performance Report 2004	2005
28	Evaluation of GEF Support for Biosafety	2006
	Third Overall Performance Study	2005
	GEF Integrated Ecosystem Management Program Study	2005
	Biodiversity Program Study	2004
	Climate Change Program Study	2004
	International Waters Program Study	2004
Evaluation Documents		
ED-3	Guidelines for GEF Agencies in Conducting Terminal Evaluations	2008
ED-2	GEF Evaluation Office Ethical Guidelines	2008
ED-1	The GEF Evaluation and Monitoring Policy	2006

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Evaluation Office
1818 H Street, NW
Washington, DC 20433
USA

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