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PORTFOLIO

EVALUATION

India

(1991–2012)

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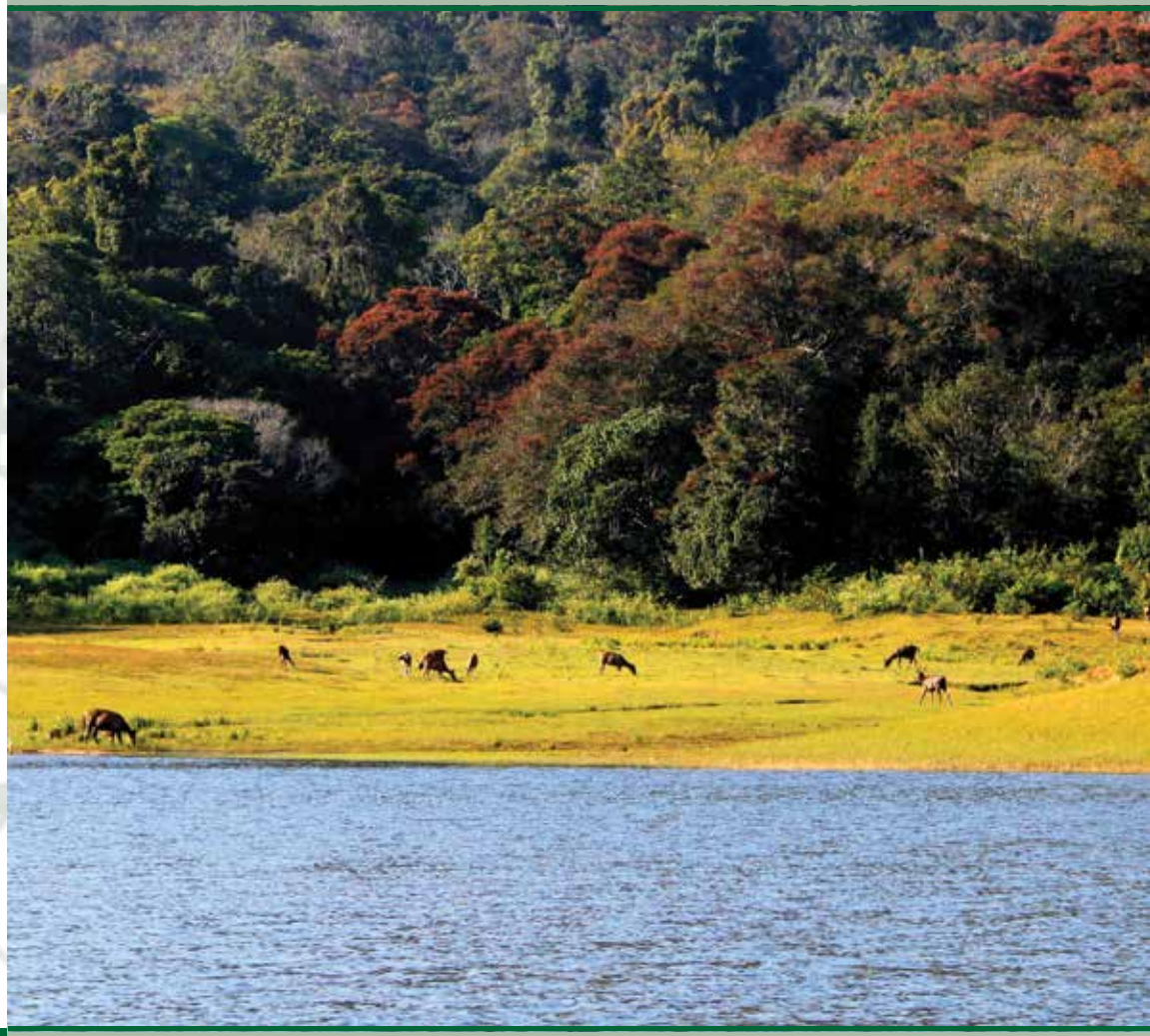

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GEF Country Portfolio Evaluation: India (1991–2012)

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EVALUATION REPORT NO. 84

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Evaluation Report No. 84
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Contents

BOXES

FIGURES

TABLES

Foreword

The India Country Portfolio Evaluation is one of four country-level evaluations undertaken by the Evaluation Office of the Global Environment Facility (GEF) in the Asia and Pacific region during GEF-5 (2010–14) to examine GEF support in the region. India's participation in GEF activities began in 1991. The country now accounts for a diverse portfolio of GEF activities covering all GEF focal areas, with a pronounced focus on climate change. India was selected for evaluation primarily on the basis of its large and mature portfolio of GEF activities.

The evaluation found that GEF support to India is relevant to the country's priorities, needs, and emerging challenges. It found that, at the point of completion, outcomes of GEF projects in India are generally satisfactory. Further, during the postcompletion stage, several projects have been able to achieve significant long-term impacts due to support for follow-up action. GEF projects are generating global environmental benefits at the national level through broader adoption of the technologies and approaches that were promoted with GEF support at a local scale. The contributions of GEF activities to changes in the legal, policy, and regulatory framework are assessed to be significant. The evaluation also found evidence that lessons from past interventions are being mainstreamed in the formulation of more recent GEF projects.

There has been an increase in country ownership of GEF projects due to the GEF's adopting a resource allocation framework for allocating funding to countries. Project cycle–related concerns have persisted. The evaluation found that proposals for the majority of GEF projects in India require considerable preparation time; once implementation starts, most projects also require extensions for completion. In some instances, this has limited the outcome achievements of GEF projects. Recent years have seen an improvement in the monitoring of the GEF portfolio in India due to greater involvement of the GEF operational focal point in tracking GEF projects. However, attention is primarily focused on projects that are under preparation and less on tracking the progress of projects that are under implementation and the results of projects that have been completed. Thus, there remains considerable room for improvement in the monitoring of the GEF portfolio.

Preliminary emerging findings of the evaluation were shared with national stakeholders in a workshop held in New Delhi in November 2012. The feedback received during this workshop, as well as inputs from a national independent quality assurance panel, was taken into account in preparing this final report. The key findings and lessons were an input to the GEF's 2013 Annual Country Portfolio Report, which was shared with the GEF Council at its June 2013 meeting. The Office had faced obstacles in accessing ongoing and completed GEF-funded projects due to inadequate legal and contractual agreements. This led to a Council decision that asked the GEF Evaluation Office to interact with the GEF Agencies to ensure access to all GEF projects. The Indian govern-

ment responded to the evaluation; its response is included as annex J of this report. We hope that the evaluation will help in facilitating further improvements in the GEF's work in India.

The GEF Evaluation Office would like to thank all who collaborated with the evaluation. I would also like to thank all those involved for their support and useful criticism. Final responsibility for this report remains firmly with this Office.

Rob D. van den Berg
Director, GEF Evaluation Office

Acknowledgments

Carlo Carugi, Senior Evaluation Officer in the Evaluation Office of the Global Environment Facility (GEF), is the leader of the Office's Country Portfolio Evaluation team, and the country portfolio evaluation for India was conducted under his overall guidance. Neeraj Kumar Negi, Senior Evaluation Officer, was the task manager of the evaluation. He led the evaluation team and was responsible for the operational aspects of the evaluation. Ben Castle and Simon Blower, consultants with the GEF Evaluation Office, served as research assistants.

The evaluation was executed by a team of six consultants from the InsPIRE Network for Environment, New Delhi. Kinsuk Mitra was the lead consultant. Shankar Haldar, P. R. K. Sobhan Babu, Sunpreet Kaur, Mohammad Aatish Khan, and Vineet Jain comprised the remainder of the team.

A quality assurance panel composed of two distinguished Indian experts—Kirit Parikh and Vinod Mathur—provided advice and feedback to the task manager on various aspects of the evaluation, including methodological approach, evaluation tools, intermediary products, and evaluation report.

This evaluation could not have been possible without support from India's Ministry of Environment and Forests. Hem Pande, the GEF operational focal point in India, provided necessary support at every stage of the evaluation. Nayanika Singh, a consultant working in the Office of the Operational Focal Point, helped the evaluation team with her institutional knowledge of GEF operations in India; she also helped in identifying and facilitating access to several national stakeholders and relevant documentation.

The GEF Agencies and executing agencies provided valuable information on GEF operations and facilitated the team in accessing GEF stakeholders. Several partner organizations and individuals took time in extending support to the field missions undertaken by the evaluation team. We appreciate and thank them for facilitating our work.

Abbreviations

CBD	Convention on Biological Diversity
CBO	community-based organization
CEO	Chief Executive Officer
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPE	country portfolio evaluation
FAO	Food and Agriculture Organization of the United Nations
FSP	full-size project
GEF	Global Environment Facility
GHG	greenhouse gas
M&E	monitoring and evaluation
MoEF	Ministry of Environment and Forests
MSP	medium-size project
NGO	nongovernmental organization
NIP	national implementation plan
PDF	project development facility
PIF	project identification form
PIR	project implementation review
PMIS	Project Management Information System
POP	persistent organic pollutant
PPG	project preparation grant
RAF	Resource Allocation Framework
ROtI	review of outcomes to impacts
SGP	Small Grants Programme
SLEM	Sustainable Land and Ecosystem Management
STAR	System for Transparent Allocation of Resources
UN	United Nations
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
UNIDO	United Nations Industrial Development Organization

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

1. Main Conclusions and Recommendations

1.1 Background

Country portfolio evaluations (CPEs) are among the main streams of work of the Evaluation Office of the Global Environment Facility (GEF). By capturing aggregate portfolio results and the performance of the GEF at the country level, CPEs provide useful information to the GEF Council and national governments in terms of assessing the results and performance of GEF-supported activities at the country level and of how these activities fit with national strategies and priorities, as well as with the global environmental mandate of the GEF. As detailed in the terms of reference (annex A), India was selected for a CPE primarily because its GEF project portfolio is relatively large, mature, and diverse; also, it has not yet been adequately covered by the Evaluation Office in its work.

In line with the overall purpose of GEF CPEs, the India CPE aimed to contribute to the following specific objectives:

- Independently evaluate the **relevance** and **efficiency** of GEF support in the country from several points of view: environmental frameworks and decision-making processes, the GEF mandate and the achievement of global environmental benefits, and GEF policies and procedures
- Assess the **effectiveness** and **results** of completed projects aggregated by focal area
- Provide additional evaluative evidence to other evaluations conducted or sponsored by the Office
- Provide **feedback** and **knowledge sharing** to (1) the GEF Council in its decision-making processes to allocate resources and develop policies and strategies, (2) the country on its participation in or collaboration with the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF-funded projects and activities

With an area of 3.29 million square kilometers, India is the seventh largest country in the world. It has a population of more than 1.2 billion, which makes it the second most populous country. India has experienced rapid economic growth over the last 20 years and is rapidly emerging as a major economic power. It has a very wide range of ecosystems and habitats, and is known for its rich biodiversity. Rapid population growth, gaps in institutional capacities, and trade-offs made for rapid economic development have, however, put India's significant natural resources under pressure. Given the size of its geographical area and population, and its economic growth, India is important to any global strategy for climate change mitigation and adaptation, as well as from a biodiversity conservation and land degradation perspective.

Since its inception, the GEF has supported projects in India to generate global environmental benefits. India's participation with the GEF began during the GEF pilot phase in 1991. The World Bank–implemented Alternate Energy project (GEF ID 76) was the first GEF project in the country. The GEF Small Grants Programme (SGP) started its opera-

tions in India in 1995. As of July 2012, the GEF had allocated $411.2 million through 55 approved national projects and 319 small grants to India. These activities involved aggregated cofinancing commitments of $3.215 billion by partner organizations. Fourteen (25 percent) of these national projects have been completed; 22 (40 percent) are under implementation; and 19 (35 percent) are either still under preparation or in their preimplementation phase. India also participates in 16 regional or global projects supported by the GEF, representing aggregate GEF support of $99.2 million.[1]

Table 1.1 presents the distribution of the GEF portfolio in India. All GEF focal areas other than ozone-depleting substances are represented in the India portfolio. More than half of GEF funding in the country has supported projects in climate change. Biodiversity, chemicals, and multifocal area projects also received significant proportions of GEF funding in India. Recently, the GEF has begun funding activities in the land degradation focal area in India.

1.2 Objectives, Scope, and Methodology

The overall objective of the India CPE was to assess the performance of the GEF portfolio in India in terms of the relevance, efficiency, effectiveness, and results of GEF activities and processes in India and the factors contributing to this performance. The evaluative phase of the India CPE was conducted between April 2012 and February 2013 by an evaluation team comprised of staff from the GEF Evaluation Office and a team of consultants from the InsPIRE Network for Environment. A quality assurance panel provided feedback to the team on quality aspects related to the methodology and evaluation products.

The methodology included a series of qualitative and quantitative data collection methods. Standardized CPE analysis tools and project review protocols were used after adapting these to the Indian context. The quantitative analysis used indicators to assess the efficiency of GEF support using projects as the unit of analysis (e.g., in analyzing the time and cost of preparing and implementing projects).

The evaluation drew on several sources to gather evaluative evidence, including desk reviews, interviews with key stakeholders, field verification, analysis of GEF data sets, and survey of publications and documents relevant to the GEF's engagement in India. The information from these sources was systematically triangulated.

The India CPE focused on the 71 projects (55 national projects and the national components of 16 global projects) implemented within the boundaries of India. India's SGP was also reviewed. National and regional project proposals that were in the preapproval stage of the project cycle were not considered as part of the portfolio covered by the evaluation. The full GEF portfolio in India is presented in annex F.

A multitiered approach to the coverage of projects included in the GEF India portfolio was adopted. Progress of all projects in the portfolio was assessed through desk reviews using different instruments for projects under preparation, under implementation, and completed. Projects were selected for field visits based on their implementation status, project approach, accessibility, and time/resource constraints. Ten ongoing projects were selected for field verification. During the evaluative phase, nine of these were covered and one was dropped. Eleven completed projects were initially selected for review of outcomes to impacts (ROtI) assessment. Of these, 10 were ultimately

[1] For seven of these projects, the GEF allocation for the national components to be executed in India was $19.9 million. For the remainder, either no national component was included in the project's design or data on allocation for the national component are not available. Dividing the total GEF grant by the number of participating countries for each of the nine projects results in an estimated $26 million in GEF funds for the Indian components of these regional and global projects.

TABLE 1.1 **GEF Support to National, Regional, Global, and Small Grants Projects in India, by Focal Area**

	National projects						Regional and global projects[a]					
			GEF grant		Cofinancing				GEF grant		Cofinancing	
Focal area	No.	%	million $	%	million $	%	No.	%	million $	%	million $	%
Biodiversity	12	22	65.9	16	178.9	6	5	31	22.6	23	44.2	21
Climate change	31	55	251.6	62	2,485.9	77	7	44	46.1	46	119.9	56
International waters	—	—	—	—	—	—	2	13	18.5	19	36.6	17
Land degradation	1	2	1.0	0	1.0	0	—	—	—	—	—	—
Chemicals	4	7	38.4	10	107.6	4	1	6	11.1	11	13.0	6
Multifocal	7	13	46.1	11	428.9	13	1	6	0.9	1	1.0	0
Total	55	100	403.0	100	3,202.4	100	16	100	99.2	100	214.7	100
SGP	319		8.2		12.1							
Grand total			411.2		3,214.5		16		99.2		214.7	

a. The GEF grant and cofinancing amount given for the global and regional projects correspond to the overall figures for all the participating countries together.

performed, and 1 dropped. Two of the 10 projects covered through ROtI assessment were sequential and had been approved as separate tranches. The progress to impact made by these two projects was assessed by considering them as a combined project. SGP grants were covered on an opportunistic basis; site visits were conducted for five of them.

Before GEF-4 (2006–10), the GEF did not operate in India with a country portfolio planning approach. This posed a challenge because, on the one hand, the CPE tends to assess coherence within the portfolio; on the other, very few completed projects were actually developed and implemented with a country program approach in mind. There were several data gaps due to which achievements of completed projects were difficult to assess. For example, for several projects that were completed before 2002, the terminal evaluations were not very informative. Another challenge was isolating the long-term impact of GEF activities—especially the impact on the legal, policy, and regulatory framework—within the context of actions taken by other actors and the influence of other factors. This challenge made it difficult to address attribution.

Despite limitations, the evaluation team developed a fairly reliable database of the GEF's portfolio in India. The preliminary emerging findings of the evaluation were presented in a stakeholder consultation workshop held in New Delhi on November 7, 2012. The feedback received during the workshop was taken into account in conducting the remaining evaluative phase and in preparing this report. The draft report was shared with the stakeholders to seek their feedback on the findings, emerging conclusions, and recommendations presented. This feedback has been addressed in this final report.

1.3 Conclusions

EFFECTIVENESS, RESULTS, AND SUSTAINABILITY OF GEF SUPPORT

CONCLUSION 1: **The GEF projects in India have generally been effective in achieving their outcomes at the point of completion. In the postcompletion phase, projects have, in several instances, made significant progress toward long-term impacts.**

The Evaluation Office rates outcome achievements of completed projects at the point of project completion through its terminal evaluation report review process.[2] Of the 22 completed projects,

[2] Since fiscal year 2009, the GEF Evaluation Office has also begun adopting the outcome ratings provided

the GEF Evaluation Office has provided outcome ratings for 11. The remainder have not been rated either because (1) their terminal evaluations were submitted before fiscal year 2005, which is when the GEF Evaluation Office began providing outcome ratings; or (2) they were enabling activities that involved less than $500,000 in GEF funding, for which size and type of project the Office does not provide outcome ratings.[3]

Of the 11 projects that have been rated by the GEF Evaluation Office, the outcomes of 10 have been rated in the satisfactory range: the outcome achievements of 5 of these were rated moderately satisfactory, and the remaining 5 as satisfactory. The outcome achievements of the Development of a National Implementation Plan (NIP) in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants project (GEF ID 1520) were rated as moderately unsatisfactory. A general high level of ratings for completed projects is indicative of the overall satisfactory performance of the portfolio in terms of outcome achievements at the point of project completion.

The CPE team undertook desk review–based progress to impact assessments to determine the progress made by completed projects at the point of completion. The team was able to rate 10 of the 11 completed projects—where sufficient evidence was available through terminal evaluation reports and other independent publications—on progress toward their respective long-term environmental impacts. Four projects were assessed to have made significant progress, and six to have made moderate progress.

The evaluation team undertook field-based ROtI assessments to verify the progress to impact made by the completed projects, including progress made in the postproject completion period. As part of the India CPE, 11 completed projects were selected for ROtI assessment. Of these 11, field verification was not undertaken for the NIP development project. For those projects that were actually covered through field-based ROtI assessment, the limited availability of baseline and postcompletion data on project accomplishments posed a challenge in ascertaining long-term impacts. Consequently, most of these assessments are based primarily on discussions with stakeholders and the perceptions of beneficiaries. In general, compared to the status at the point of project completion, these projects have shown progress to long-term impacts (table 1.2).

CONCLUSION 2: GEF projects are generating global environmental benefits at a higher scale than originally covered through broader adoption of the promoted technologies and approaches.

Completed GEF projects in India have addressed environmental concerns related to biodiversity conservation, climate change mitigation, and chemicals. The technologies and approaches promoted through these projects have generated global environmental benefits. Several of these projects have been able to catalyze adoption of the promoted technologies and approaches at a higher scale than that covered directly through project activities.

There have been several notable successes. In the biodiversity focal area, the India Eco-Development project (GEF ID 84) pioneered a community-based approach to protected area management that has gained widespread acceptance across India. Technologies and approaches promoted through

by the independent evaluation offices of some of the GEF Agencies where there is a sufficient track record to indicate consistency in the ratings provided by the GEF Evaluation Office and the respective Agency evaluation office.

[3] Two of the enabling activities do not meet the $0.5 million criteria. In addition to the 11 projects mentioned in this section, the GEF Evaluation Office has provided an outcome rating for the Photovoltaic Market Transformation Initiative project (GEF ID 112) through its terminal evaluation report review process. This project was implemented in three different countries. While the project activities were not successful in the other countries (Kenya and Morocco), they achieved moderate success in India. Given the difference in performance across countries, a separate rating was provided by the evaluation team for the India component of this project for this evaluation.

TABLE 1.2 **Outcome and Progress to Impact Ratings for Completed GEF India Projects**

GEF ID	Project name	Outcome rating	Progress to impact rating	
			Desk review	Field verification
11	Enabling Activities for the Preparation of India's Initial Communication to the UNFCCC	HS	—	—
76	Alternate Energy Project*	S	M	S
84	India Eco-Development*	MS	M	S
112	Photovoltaic Market Transformation Initiative (India component)	MS	—	M
236	First National Report to CBD	S	—	—
251	National BD Strategy and Action Plan	—	—	—
325	Coal Bed Methane Capture and Commercial Utilization*	MS	M	M
370	Development of High Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions*	S	M	S
383	Selected Options for Stabilizing Greenhouse Gas Emissions for Sustainable Development	—	—	—
385	Asia Least-Cost Greenhouse Gas Abatement Strategy (ALGAS)	S	—	—
386	Optimizing Development of Small Hydel Resources in Hilly Areas*	MS	M	S
404	Energy Efficiency*	S	M	M
1224	Conservation and Sustainable Management of Below-Ground Biodiversity (Phase 1)*	S	—	M
1340	Promoting Industrial Energy Efficiency through a cleaner Production/ Environmental Management System Framework*	S	M	—
1378	Assessment of Soil Organic Carbon Stocks and Change at National Scales*	MS	M	—
1520	Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)	MU	L	—
1599	Development of a Strategic Market Intervention Approach for Grid-Connected Solar Energy Technologies (EMPower)	HS	M	—
1628	Capacity Building for Implementation of the Cartagena Protocol*	S	M	—
2092	Coastal Resilience to Climate Change: Developing a Generalizable Method for Assessing Vulnerability and Adaptation of Mangroves and Associated Ecosystems	S	M	—
2216	National Capacity Self-Assessment (NCSA) for Global Environment Management[a]	—	—	—
2342	Conservation and Sustainable Management of Below-Ground Biodiversity (Phase 2)	S	—	M
4215	Low Carbon Campaign for Commonwealth Games 2010 Delhi*	MS	M	M

NOTE: — = unable to assess or not assessed. *Outcome ratings:* HS = highly satisfactory; S = satisfactory; MS = moderately satisfactory; MU = moderately unsatisfactory; U = unsatisfactory; HU = highly unsatisfactory. *Progress to impact ratings:* S = significant; M = moderate; L = low or negligible. Outcome ratings for projects denoted with an asterisk (*) were provided by the GEF Evaluation Office through its terminal evaluation review process.

a. The project was an enabling activity with $200,000 in GEF funding. Given the small size of the GEF grant, no terminal evaluation was required for this project.

the Coal Bed Methane Capture and Commercial Utilization (GEF ID 325) and Optimizing Development of Small Hydel Resources in Hilly Areas (GEF ID 386) projects have been broadly adopted. Experience in India shows that broader adoption of promoted technologies and approaches is aided by successful demonstrations, along with proper dissemination, mobilization of appropriate partners, an enabling legal and regulatory context, country ownership, and project relevance to national priorities.

The GEF has played an important role in supporting promising new ideas and approaches that are expected to generate global environmental benefits. In most instances, although the GEF has not been the first to come up with a particular idea or approach, it has nurtured these by providing support at a substantial scale so that they may be significantly advanced. There are several well-documented examples of innovative elements in GEF projects. These include GEF-led efforts to address concerns related to below ground biodiversity (in the Conservation and Sustainable Management of Below Ground Biodiversity, Tranche 1 and 2 [GEF ID 1224, 2342], promote the capture and commercial utilization of coal bed methane, and facilitate the development of locally suited designs of efficient turbines for developing small hydel resources in hilly areas.

CONCLUSION 3: **The contributions of GEF activities to changes in India's legal, policy, and regulatory framework have been significant.**

The development of India's environmental legal framework is complex in nature, making the impact of GEF projects—given the overlapping and interacting contributions of several other actors and factors—difficult to isolate. Nonetheless, several GEF projects are perceived as having contributed to the development of India's legal, policy, and regulatory environment.

The major contributions that may be linked to GEF projects include changes reflected in the country's national planning documents, working plan codes, and legal framework. For example, the eco-development strategy promoted by the India Eco-Development project was included in the 10th national Five-Year Plan. This project also inspired an amendment (Amendment No. 38X, 2006) to the Wildlife Act, making it mandatory for all tiger reserves in the country to establish a foundation for management of the reserve. The project on Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States (GEF ID 1156) is reported to have provided inputs for the development of the National Working Plan Code, which is expected to address the management of medicinal plant resources in forest areas. Projects such as the NIP development project have similarly contributed to the development of national plans.

Another effect of GEF projects such as the Coal Bed Methane Recovery and Commercial Utilization project has been to increase the profile of the addressed concerns and to motivate the government in identifying nodal agencies and establishing mechanisms for further work on the issue. Another case in point is the Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal Biodiversity project (GEF ID 634), which established the Gulf of Mannar Biosphere Reserve Trust. This trust has been made a statutory body of the government of Tamil Nadu.

CONCLUSION 4: **GEF support for communication and outreach activities has been effective in facilitating broader adoption of promoted technologies and approaches. There is evidence that lessons from past interventions are being mainstreamed into the formulation of GEF projects.**

GEF projects have disseminated project experiences and lessons through publications, conferences, project websites, research papers, books, workshops, CDs, toolkits, and handbooks, among other devices. Of the 22 completed projects, information about communication and outreach was available for 11. Terminal evaluation reports for these 11 projects noted that the projects had sup-

ported activities focused on communication, outreach, experience sharing, publication, etc. Because it is difficult to track the long-term results of such activities, the effectiveness of these communication and outreach efforts has not been assessed. Information gathered through field visits and interviews with stakeholders shows that the communication and outreach efforts and publications developed by some GEF projects have been effective. This includes materials developed for promoting environmentally friendly life styles (the Low Carbon Campaign for Commonwealth Games 2010 Delhi project [(GEF ID 4215]), documentation of biodiversity richness (the Gulf of Mannar Biosphere Reserve project), establishment of long-term mechanisms including e-libraries for information sharing (Coal Bed Methane Capture and Commercial Utilization project), and publications to share good practices (Sustainable Land and Ecosystem Management [SLEM] Program [GEF IDs 3468, 3469, 3470, 3471, and 3472]). Final output documents from several GEF-supported enabling activities have become important base documents for the respective sector to build upon (e.g., the national communication reports and the data contained in them are widely referred to by practitioners and cited by academics).

Evidence suggests that the design of GEF projects in India incorporates lessons from past interventions. Several GEF projects and programs have been explicitly designed based on past experiences, notably projects formulated within the frameworks of the Energy Efficiency program (GEF ID 3538) and the SLEM Program. However, the manner in which these lessons have been incorporated has not been described with clarity in project proposals.

There is also evidence that lessons from GEF projects are being incorporated by agencies in projects and activities that are not supported by the GEF. For example, the Institute of Industrial Productivity and the German Society for International Cooperation (GIZ) have funded and invested in demonstration projects in sectors that are not covered by GEF support, such as foundries, as a result of the awareness and interest generated by the GEF project on Financing Energy Efficiency at Micro, Small and Medium Enterprises (GEF ID 3551). The Tea Board of the Indian government has taken up the lessons learned from Energy Conservation in Small Sector Tea Processing Units in South India (GEF ID 2500) and initiated a replication of the project in Assam under the government's 12th Five-Year Plan.

RELEVANCE OF THE PORTFOLIO

CONCLUSION 5: **GEF support to India is relevant to the country's priorities, needs, and emerging challenges and has led to country ownership.**

A majority of GEF support in India has been in the areas of climate change, biodiversity, and chemicals. Over the years, support for projects addressing concerns related to land degradation has also increased. GEF support has also addressed capacity development, including of government institutions such as the Indian Renewable Energy Development Agency and the Bureau of Energy Efficiency through long-term engagement with them. Projects such as the India Eco-Development project and the Optimizing Development of Small Hydel Resources in Hilly Areas project have played an important role in enhancing capacities and raising the awareness and skills of local stakeholders. The India Eco-Development project developed capacities of individuals, households, and village communities through the development of local infrastructure, training, and self-help groups. The small hydel project played an important role in building relevant capacities of key technical institutes such as AHEC-IIT Roorkee, NERIST Itanagar, and BIT Ranchi; state nodal agencies; financial institutions; and the Ministry of New and Renewable Energy.

Projects developed within the framework of the SLEM Program focus on income-generation activities for local community members alongside the generation of global environmental benefits; they thus directly contribute to one of the coun-

try's main development objectives. This emphasis is particularly evident in the Sustainable Rural Livelihood Security through Innovations in Land and Ecosystem Management (GEF ID 3470) subprojects at Sundarbans and Andamans. Here, local community involvement in project activities is being sought to deal with the newly emerging challenges of soil salinity in paddy fields in the two respective areas.

Compared to India's size and need for resources, the overall level of GEF support is quite small. Nonetheless, GEF support has been well aligned with India's overall sustainable development agenda and environmental priorities of supporting biodiversity conservation and management of protected areas, energy efficiency, land and water ecosystem management, and addressing land degradation and concerns related to chemicals. All 51 GEF projects that were rated in this regard by the India CPE team were assessed to be relevant and in line with the country's environmental and sustainable development priorities.[4]

In general, GEF projects have received considerable government support. In several instances, the government has funded follow-up activities for completed projects using alternative funding sources.

In addition, the involvement of the national government in portfolio formulation has increased after GEF-3 (2002–06). Up to GEF-3, involvement of the government in shaping the country portfolio was largely passive. When the GEF adopted its Resource Allocation Framework (RAF) for GEF-4, India was among the few countries that initiated a country-driven national portfolio planning formulation exercise on their own. Thereafter, the central government's involvement in planning GEF activities has increased. GEF activities have received support not only of the central government, but also of the relevant state governments.

While government institutions have played an important role in executing GEF projects, the role of civil society organizations and the private sector has been equally important. The government has been supportive of nongovernmental organization (NGO) participation—especially through the SGP, which focuses on providing small grants that are executed by NGOs and community-based organizations (CBOs). The government has provided funding to the SGP additional to the GEF's funding to increase the level of grants made by the program. This support from the government indicates a high level of ownership, even though the program is run by the Centre for Environment Education, an NGO.

EFFICIENCY OF THE PORTFOLIO

CONCLUSION 6: **Proposals for the majority of GEF projects require considerable preparation time and, once implementation starts, most projects require extensions for completion. In some instances, this has limited outcome achievements.**

The data on project preparation have several gaps, especially for projects that pertain to earlier GEF periods. Of the national projects, data on time taken from first submission of a project proposal to endorsement by the GEF Chief Executive Officer (CEO) are available for 22 full-size projects (FSPs). Of these, for 13 FSPs (59 percent), it took more than two years from first submission of their respective proposal to the GEF to CEO endorsement. Of the six medium-size projects (MSPs) for which data are available, it took three projects more than two years to move from first submission of proposal to CEO endorsement/approval. There is wide variation among the India projects in terms of preparation time, ranging from six months for the Low Carbon Campaign for Commonwealth Games 2010 Delhi project to eight years for the Mainstreaming Conservation and Sustainable Use

[4] Although there are 71 approved projects in the India portfolio, only 65 were reviewed because 6 were approved after the reviews had been conducted. Sufficient data were not available to assess the relevance of 14 projects; thus, all rated projects were assessed to be relevant.

of Medicinal Plant Diversity in Three Indian States project from first submission to disbursement.

From GEF-4 onwards, the manner in which project proposals are developed and prioritized across the GEF partnership has changed due to the GEF's adoption of the RAF, the enhanced role of the GEF operational focal point in the national-level programming of GEF resources, and the streamlining of the GEF project cycle. Although the number of observations is too small to indicate a trend in terms of reduction in project preparation time, some stakeholders believe that, overall, the time required for project preparation has been reduced.

Of the 13 completed projects for which data were available, 12 required extensions to complete project activities. The reasons that made extensions necessary include slow start-up, delayed funds flow, overly optimistic estimation of the time required for a particular project activity, inadequate support from stakeholders or suppliers, and issues related to inter- or intra-Agency coordination. Some stakeholders noted that delay in completion of project activities may limit the effectiveness of GEF projects. Among the projects whose effectiveness was reported to have been constrained by delays are the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project and the Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector in India project (GEF ID 1240).

CONCLUSION 7: Adoption of the GEF RAF and India's increased attention to portfolio planning have resulted in a decline in the rate at which projects and proposals are dropped or canceled.

The total number of India projects or proposals listed in the GEF Project Management Information System (PMIS) is 130. Of these, 71 have been allocated GEF resources—i.e., they have at least had their project identification forms (PIFs) approved; 51 have been dropped or canceled, and the remaining 8 are in the pre–PIF approval stage.

The available data show that, from GEF-2 (1998–2002) onwards, there has been a decline in the number of project proposals that were dropped or canceled.[5] Much of this improvement could be linked to the national portfolio planning effort led by India since GEF-4, complemented by the GEF's adoption of the RAF, whose indicative allocations to countries enable them to better plan their portfolios.

Table 1.3 presents data on implemented versus approved projects by GEF replenishment period. (Data are not available for either the pilot phase or GEF-1, because at that point the GEF did not track proposals that were eventually dropped.) The percentage of dropped and canceled projects may increase for the GEF-4 and GEF-5 periods as the projects progress further in the project cycle, and figures for GEF-5 may change as it is still under implementation. Nonetheless, it is highly unlikely that the rate of dropped/canceled projects will be as high as in earlier periods.

TABLE 1.3 **Distribution of Approved Projects by Replenishment Period**

	Number of approved projects			Dropped/ canceled
Period	Total	Imple-mented	Dropped/ canceled	projects as % of total
GEF-2	22	7	15	68
GEF-3	35	14	35	60
GEF-4	37	28	9	24
GEF-5	16	11	5	31

[5] PMIS information for the pilot phase (1991–94) and GEF-1 (1994–98) is not complete, because these periods precede operationalization of the PMIS, and in several cases, information on project proposals that were dropped or canceled was not uploaded to the database. As a result, analysis of dropout and cancellation rates is accurate only from GEF-2 onwards.

CONCLUSION 8: **Contrary to expectations, for an overwhelming majority of GEF projects, executing agencies report sufficient administrative budget.**

During the first workshop with the national stakeholders that was conducted to scope the evaluation, several participants indicated that the administrative budget in GEF projects may be insufficient. The interviews conducted for this evaluation, however, revealed a different picture. Discussions with executing agencies at the eight GEF projects visited for field verification indicate that, barring a few instances, the administrative budget is sufficient to provide for the administrative costs incurred in project execution. This is especially true for projects where the GEF administrative budget is supplemented with cofinancing from the corresponding executing agencies (government ministries or departments). In one instance, an inadequate administrative budget was reported. The budget's inadequacy reportedly limited the number of supervisory visits the project management staff could undertake and reduced the scope of monitoring and evaluation (M&E) activities. While the administrative budget is generally sufficient, it is reported to become a constraint when projects are extended without provisioning additional resources for administrative costs.

CONCLUSION 9: **GEF projects in India are reported to have mobilized a significant amount of cofinancing which is often made available in a timely manner. Activities supported through cofinancing are generally well integrated into the project design.**

For the 55 national projects in the GEF's India portfolio, $3.202 billion in cofinancing had been promised for $403 million in GEF support. Of the 22 completed projects in the portfolio, data on materialization of cofinancing were available for 16 projects. For 10 of the projects for which data on cofinancing were available, the reported materialized cofinancing was equal to or greater than the amount promised at the start of the project; in fact, two projects achieved more than three times that originally planned. At the other extreme, one project's materialized cofinancing was less than 50 percent of that committed. For the remaining five projects, the materialized cofinancing was between 50 and 100 percent of the committed cofinancing. The SGP has mobilized cofinancing of $12.1 million in India, against an aggregate of $8.2 million that was approved in the country through GEF SGP small grants.

The level of cofinancing vis-à-vis the GEF grant varies based on the nature of the activities supported through cofinancing. A major proportion of cofinancing is accounted for by the projects implemented through the World Bank. Although the level of cofinancing mobilized by the United Nations (UN) agencies is lower, when the nature of projects implemented by them is taken into account, they seem to have been effective in mobilizing cofinancing. Data on cofinancing commitments and materialization for national components are not available for India's regional and global projects.

In general, timely availability of cofinancing has been noted in the country portfolio (for 14 of the 15 projects covered through field verification), and it has had no effect on any delays that have occurred in the projects. An exception was noted, however, with the Sustainable Participatory Management of Natural Resources to Promote Ecosystem Health and Resilience in the Thar Desert Ecosystem project (GEF ID 3024), which was implemented through the United Nations Development Programme (UNDP). The project management's inability to leverage cofinancing from the state government was one of the reasons the project stalled midway, alongside fiduciary irregularities noted by the GEF Agency.

Although a majority of cofinancing is provided in cash (primarily through loans from multilateral development banks), these contributions are concentrated in a few projects that have been implemented by the development banks. For most projects, contributions by partner institutions

are in the form of in-kind cofinancing (as personnel costs for technical support and infrastructure rental costs). Project management has little direct oversight of the activities supported through such cofinancing. While in-kind contributions are important in facilitating the delivery of project outputs, they obviously may not be used for activities that require in-cash expenditure. Some respondents noted that cash cofinancing may facilitate greater progress in project results. For example, they cited the role of cash contributions in enhancing the results of projects such as Energy Conservation in Small Sector Tea Processing Units in South India and the Low Carbon Campaign for Commonwealth Games 2010 Delhi.

CONCLUSION 10: **Although quality of M&E in the GEF portfolio is improving, it remains an area of weak performance.**

The desk reviews undertaken as part of the India CPE assessed the quality of indicators used to track results. Of the 14 completed projects for which there was sufficient information to allow such an assessment, 8 were found to have not used appropriate indicators to track results, given the project objectives and activities. This appraisal is consistent with ratings provided by the GEF Evaluation Office through its terminal evaluation report review process. Of the seven completed GEF projects in India for which the GEF Evaluation Office provided ratings, the quality of M&E in only three projects was assessed to be in the satisfactory range. Overly optimistic reporting of progress of GEF activities through the project implementation reports (PIRs) has emerged as a concern. At least one GEF Agency (UNDP), even though aware of problems being faced on the ground and despite taking appropriate corrective actions, did not report its concerns through the PIRs submitted to the GEF.

There is some evidence that the quality of M&E arrangements may be improving. The M&E design of projects that are under implementation or in the pipeline was assessed as relatively better than in the past. The M&E system of most of the pipeline projects is satisfactory. Appropriate performance and impact indicators have been included, along with corresponding means of verification. There is an appropriate level of emphasis on reporting requirements, external evaluations, and the inclusion of M&E costs in the project budget.

Another recent improvement in India has been greater involvement of the operational focal point in tracking the status of projects and proposals through the various stages of the project cycle. Attention in this regard, however, is primarily focused on projects that are under preparation and less on tracking progress of ongoing or completed projects.

CONCLUSION 11: **Inadequate understanding and arrangements prevented access of the GEF Evaluation Office for independent field verification of two chemicals projects in India.**

To report on project results and Agency performance, the GEF Evaluation Office relies not only on information reported by the Agencies but also on independent verification it carries out in the field. The GEF M&E Policy (GEF EO 2010) requires that the GEF Agencies respond promptly and fully to requests from the Office for information or support relating to the M&E of GEF activities.

The evaluation team was not able to conduct field verification for two chemicals focal area projects implemented through the United Nations Industrial Development Organization (UNIDO) and executed by the Ministry of Environment and Forests (MoEF): the completed NIP development project and the ongoing Environmentally Sound Management and Final Disposal of PCBs in India project (GEF ID 3775). The evaluation team had first contacted the executing agency for the PCB project in July 2012, informing it of the selection of these two projects for fieldwork and submitting a request for support in conducting the field visits. The executing agency refused to provide access to the project sites, as the contract between UNIDO

and the MoEF did not require the latter to provide support to and facilitate GEF Evaluation Office evaluations.

In November 2012, after intervention from the GEF operational focal point, the executing agency agreed to facilitate field verification. The Director of the GEF Evaluation Office requested that the relevant GEF Agencies expedite the field visits, as the fieldwork component of the evaluation would be closed by early December. In an email dated December 11, 2012, the executing agency informed the evaluation team that it could undertake the visits, but imposed the condition that representatives from UNIDO and the executing agency would be present during the visits to "oversee" the evaluation.[6] This condition was unacceptable, because it compromised the independence of the evaluation.

Although the team could have requested another intervention from the GEF operational focal point to persuade the executing agency to drop the condition, it ultimately decided to cancel field verification for these two projects because the evaluation had been delayed for too long. Consequently, the GEF Evaluation Office is unable to report on the chemicals focal area projects based on data collected through fieldwork. All the reporting presented here on chemicals projects is based on desk review of available information and interviews of the national stakeholders.

1.4 Recommendations

RECOMMENDATIONS TO THE GEF COUNCIL

RECOMMENDATION 1: **The GEF Council should request that Agencies ensure that their contracts with executing agencies require the latter to provide support to evaluations undertaken by the GEF Evaluation Office, without any conditions that would compromise the independence of the evaluation. The Council should also request Agencies ensure that lack of adequate contractual arrangements with executing agencies does not become a barrier to the GEF Evaluation Office conducting independent field verification of projects that are already under implementation or that have been completed.**

Inadequate contractual arrangements between UNIDO and an executing agency was a barrier to the GEF Evaluation Office's ability to undertake field verification of selected projects in the chemicals focal area. When the problem surfaced, UNIDO acknowledged this as a gap and made changes in its contractual requirements. Similar appropriate changes in contractual arrangements with executing agencies would enable the GEF Agencies to prevent such situations in future for projects that are under preparation. For ongoing projects, it might be difficult to address such gaps through contractual measures. Agencies might therefore need to work closely with their executing agencies so that inadequacies in contractual arrangements do not pose a barrier to GEF Evaluation Office efforts.

RECOMMENDATION 2: **The success of country-focused programming of GEF support in India should be taken into account as a way of increasing portfolio efficiency in GEF-6 programming, together with the national portfolio formulation exercise and STAR findings that will emerge in OPS5.**

Country-focused programming implemented by the GEF for some focal areas since GEF-4 has helped foster greater country ownership of GEF activities in India. During GEF-4, the operational focal point office took the lead in bringing various national stakeholders together to identify priority areas for GEF programming in the country along with activities that could be undertaken in these identified areas. During GEF-5, India further strengthened its national portfolio formulation process, undertaking the exercise with its own resources. One of the results of this effort in India has been greater country ownership of GEF activities and a lower inci-

[6] UNIDO subsequently clarified that this condition was put in place by the executing agency without its consultation and that UNIDO does not endorse such a condition, as it is inconsistent with its own M&E policy.

dence of project cancellations from GEF-4 onwards. To draw conclusions at the global portfolio level, experiences from other parts of the world besides India need to be taken into account. The ongoing midterm evaluations of the national portfolio formulation exercise initiative and the System for Transparent Allocation of Resources (STAR) will provide further information on the effectiveness of country-focused programming. The evidence generated from these sources needs to be taken into account in programming for GEF-6 (2014–18).

RECOMMENDATION TO THE GEF COUNCIL AND INDIA

RECOMMENDATION 3: **Knowledge management is again confirmed as an important factor that will help progress toward impact and that could be further strengthened.**

The GEF has provided considerable support for activities that generate and disseminate knowledge. During the evaluation, several examples of learning from past GEF activities being mainstreamed into new activities (both GEF and non-GEF) came to light. Several projects were able to catalyze further action from other stakeholders through effective dissemination. However, limited systematic tracking of the long-term impacts of activities supported by the GEF by relevant national stakeholders was revealed during the evaluation. This is an area that the GEF and the national counterparts need to strengthen.

RECOMMENDATION TO INDIA

RECOMMENDATION 4: **India should integrate GEF support to chemicals into its rich tradition of full collaboration with the GEF and its Agencies.**

The GEF has been working in India since 1992, and has had a relatively long engagement in the country in the biodiversity and climate change focal areas. In contrast, its engagement in chemicals is relatively new. GEF support in India is generally implemented in a spirit of collaboration and partnership. During the course of this evaluation, the evaluation team received full support from the operational focal point's office, the GEF Agencies, and all but one executing agency. The single exception was the lead executing agency for the country's chemicals projects. Given the GEF's fairly recent engagement with chemicals in India, this gap is understandable. If it were to continue, however, it would prevent the GEF partnership from learning from experience in the chemicals focal area. Efforts should be made to discover how to implement GEF support in the chemicals area as smoothly as it is being implemented in the other focal areas in the country.

2. Evaluation Framework

This chapter presents the background information, objectives, and methodology related to and used in the GEF India CPE.

2.1 Background

The overall purpose of CPEs is to evaluate how GEF-supported activities fit into national strategies and priorities as well as with the global environmental mandate of the GEF, and to provide the Council with additional information on the results of GEF-supported activities and how these activities are implemented.

The key factors in selecting India for a CPE from among 160 GEF-eligible countries were its relatively large, mature, and diverse portfolio. Also, India had not been adequately covered by the Evaluation Office in its past work.

The GEF Evaluation Office proposed the CPE to the Indian government. The GEF operational focal point accepted this proposal on behalf of the government. A team from the Evaluation Office visited the country in December 2011 to discuss the modalities for the evaluation and to meet with other national stakeholders.[1] Based on these discussions, the Evaluation Office determined the general modalities for and structure of the evaluation team.

Through on an open and transparent multistage selection process, InsPIRE Network for Environment was selected as the national institution to execute the evaluation. The Evaluation Office appointed two renowned experts as members of the quality assurance panel based on suggestions received from national stakeholders.

In April 2012, the first consultation meeting with the stakeholders was organized in New Delhi to scope the evaluation. Based on the inputs received during this consultation, the standard terms of reference for GEF CPEs were revised to make them country specific.[2] The evaluative phase of the India CPE began in May 2012 and ended in February 2013.

The preliminary emerging findings of the evaluation were shared with national stakeholders in a workshop held in New Delhi in November 2012. The present report incorporates the feedback received during the workshop as well as inputs from the quality assurance panel. A separate document containing specific findings from completed projects has been prepared as volume 2 of this report.

2.2 Objectives

The purpose of the GEF India CPE is to provide the GEF Council with an assessment of how GEF-supported activities are implemented in India, a report on results from projects, and an assessment of how these activities are linked to the national

[1] More information on the proceedings of the meeting is available in GEF EO (2012).

[2] The revised terms of reference are available in annex A.

sustainable development agenda as well as to the GEF mandate of generating global environmental benefits within its focal areas. In line with the overall purpose of GEF CPEs, the India CPE aimed to contribute to the following specific objectives:

- Independently evaluate the **relevance** and **efficiency** of GEF support in the country from several points of view: environmental frameworks and decision-making processes, the GEF mandate and the achievement of global environmental benefits, and GEF policies and procedures
- Assess the **effectiveness** and **results** of completed projects aggregated by focal area
- Provide additional evaluative evidence to other evaluations conducted or sponsored by the Office
- Provide **feedback** and **knowledge sharing** to (1) the GEF Council in its decision-making processes to allocate resources and develop policies and strategies, (2) the country on its participation in or collaboration with the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF-funded projects and activities

The performance of the GEF portfolio in India is assessed in terms of the relevance, efficiency, effectiveness, and results of the GEF activities and processes in India and the factors contributing to its performance. The India CPE focused on the following three areas of investigation:

- Relevance of GEF support to the national sustainable development agenda and environmental priorities and to the GEF mandate and objectives
- Efficiency of GEF support, including roles and responsibilities, synergies, and partnerships with other actors
- Effectiveness, results, and sustainability of GEF support by GEF focal area—i.e., biodiversity, climate change, international waters, land degradation, and chemicals

The India CPE aims to bring to the attention of the GEF Council different experiences and lessons regarding how GEF support is implemented in India. It seeks to analyze the performance of individual projects as part of the overall GEF portfolio. The India CPE does not intend to evaluate or rate the performance of GEF Agencies, national entities (involved agencies/departments, government entities, or civil society organizations), or individual projects.

2.3 Scope

The India CPE examined all types of GEF-supported activities in the country at the various stages of the project cycle (completed, under implementation, and pre-implementation) and implemented by all the GEF Agencies in all the focal areas. The GEF portfolio assessed in this evaluation is an aggregate of national projects, national components of global and regional projects, and SGP projects. Project proposals under consideration were not explicitly part of the evaluation, although those that have received GEF Council approval are listed and discussed, as appropriate. The cut-off date for analysis was July 1, 2012.

2.4 Methodological Approach

The evaluative phase of the India CPE was conducted between May 2012 and February 2013. The key evaluation questions are contained in the terms of reference (annex A) and the associated evaluation matrix (annex B). In the evaluation matrix, each of these key questions is complemented with a list of relevant indicators, potential sources of data, and the methodology—tools and methods—to be used to answer the key questions. The evaluation's key questions were to be answered based on an analysis of the data collected during the evaluative phase. The India CPE was able to answer each of the key questions except one pertaining to how GEF projects and programs are conceived and developed, as the evaluation team was not

able to access relevant stakeholders to address this question.

The India CPE draws on both primary and secondary sources of information. It used a mixed methods approach consisting of both qualitative and quantitative methods to respond to the evaluation questions. The information was gathered through literature review, data sets, review of available project documents, field verification, interviews, and focus group discussions. The resulting information was cross-checked through triangulation.

A reliable list of projects is imperative for developing an approach to project coverage. The GEF portfolio in India was determined using a project list downloaded from the GEF PMIS and the small grants list received from the national coordinator of the SGP as a starting point. The PMIS project list was triangulated with information available in other documents hosted at the PMIS, the project list provided by the GEF operational focal point, and lists from the GEF Agencies that have implemented GEF projects in India—UNDP, the United Nations Environment Programme (UNEP), UNIDO, the World Bank, etc.

In some instances, the lists from the Agencies did not precisely match PMIS and focal point information, even though they covered the same set of activities. Agencies sometimes implemented a GEF project as two or more subprojects or, alternatively, combined two or more sequential GEF projects into one. These disparities were taken into account when updating the information through triangulation. For the purpose of this assessment, a GEF project (and not an Agency project) constitutes the unit of analysis. However, where appropriate—especially for assessing long-term impacts—sequential projects were treated as one. Through an iterative process, the data sets were updated, missing projects were identified, and a final list of 130 projects and 319 small grants relevant to the CPE was prepared.

To examine project cluster-level concerns, national processes, and track broader impacts, the evaluation draws on information from the literature review, interviews of knowledgeable individuals, and focus group discussions. To examine project-level issues, a multitiered approach was adopted, including analysis of the PMIS and SGP data sets, desk reviews, field verification visits, and field-based ROtI assessments.

ANALYSIS OF PMIS AND SGP DATA SETS

All projects and proposals that had been submitted to the GEF up to April 30, 2012, and listed in the PMIS data set (updated and cleaned) were covered in the portfolio analysis. In all, 130 projects or project proposals—including regional and global projects and proposals—pertaining to India were identified. The status of these projects as completed, under implementation, in pipeline, dropped, or canceled was later updated as of July 1, 2012. The PMIS-based data set for these projects was analyzed. From the SGP data set, 319 small grants were included in the evaluation. A lighter analysis of this data set was undertaken to assess the SGP portfolio in India. The analysis of the PMIS and SGP data sets focused on providing aggregate information on different types and clusters of projects in the GEF portfolio. The analysis took into account project status, focal area, GEF phase, GEF modality, GEF Agency, etc. The information generated through this mode is descriptive in nature.

DESK REVIEWS

All projects that had been completed, were under implementation, or had been approved were covered through desk reviews. Separate project review protocol modules were developed to correspond with the project's cycle stage. To fill in the project review protocols, information provided in terminal evaluations, terminal evaluation reviews, midterm reviews, PIR reports, project documents (ProDocs), and—where applicable—published literature, was reviewed.

At the start of the evaluation phase in May 2012, 65 such projects and proposals were identified. Desk reviews were carried out for these 65 projects based on their project status as of May 2012: 22 completed, 29 under implementation, and 14 that had been approved but not yet implemented (annex F). PIFs for six more projects were approved by July 1, 2012. Since these projects had not been included in the GEF work program when the desk reviews were undertaken, they were not reviewed. However, the portfolio analysis was updated to reflect their inclusion.

FIELD VERIFICATION

Field verification of projects under implementation sought to build on the information base prepared through the desk reviews. The purpose of the field visits was to update and check the veracity of the information gathered through desk review and to fill in information gaps. The focus was primarily on assessing implementation progress and the factors that affect it. The visits involved light fieldwork of about one to three days per sampled project.

In all, 29 projects were under implementation in India at the time of the evaluation, including 5 global and 2 regional projects. The global projects were not covered through field verification, as they generally entailed little or no physical activity in India. Regional projects were considered, however. Of the projects that were under implementation at the time of the evaluation, 10 were randomly sampled for field verification. Of these, nine projects were eventually covered, and one—Environmentally Sound Management and Final Disposal of PCBs in India—was dropped, for reasons noted elsewhere (annex F).

ROTI ASSESSMENT

The ROtI assessment of completed projects was the most intensive field verification undertaken within the framework of the India CPE. The aim of the ROtI assessment was to gather information on the achievement of and/or progress made on the achievement of long-term impacts. Generally, this assessment entailed 7–10 person-days of fieldwork per project. It involved outlining a project's theory of change and mapping actual progress made against the predictions of the theory, taking note of alternative explanations for the evident changes.

Within the GEF India portfolio, 22 projects had been completed. Based on the information available through desk reviews, 11 projects were excluded from consideration for ROtI assessment because they were either enabling activities that involved very little GEF investment, or were global or regional projects that did not involve significant activity in India. All of the remaining 11 projects were selected for ROtI assessment. Of these, two were sequential projects approved as separate tranches—i.e., support for the second project was ex ante contingent on satisfactory completion of the first.[3] For the ROtI exercise, these two projects were treated as one for assessment of long-term results. One of the sampled projects—Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)—was eventually dropped from the assessment for reasons discussed elsewhere; annex F shows the projects for which ROtI assessments were conducted.

FIELD COVERAGE OF SGP PROJECTS

Five SGP projects were sampled for field verification (annex G). This sampling was conducted on an opportunistic basis—i.e., when an SGP site was in the proximity of a sampled field verification site or ROtI site—dependent on logistical convenience. These sites were identified in consultation with the SGP national coordinator.

[3] Phases 1 and 2 of the global project Conservation and Sustainable Management of Below Ground Biodiversity.

2.5 Limitations of the Evaluation

A number of limitations were taken into account and, to the extent possible, addressed, while conducting the evaluation:

- CPEs are challenging, as the GEF does not operate by establishing country programs (or regional programs) that specify expected achievement through programmatic objectives, indicators, and targets. This constraint was highlighted in the terms of reference as well.
- The evaluation faced data gaps in reporting in terminal evaluations and in the project documents. While more recent projects and proposals did not have as many gaps, much of the portfolio for which results could be seen dates to an earlier period. Most of the completed projects had weak arrangements in place for tracking impacts, particularly in the postcompletion period. As a result, the evaluation team had to rely on accounts provided by persons involved in project implementation and execution. Since many of the projects were completed a long time ago, the persons involved in implementation and execution had either moved on or were no longer working with the respective agencies. This posed a challenge in establishing contact with knowledgeable individuals.
- Isolating the effect of GEF projects and activities on changes in the legal, policy, and regulatory framework was another challenge faced while conducting the CPE. GEF-supported activities are one of many causal variables in a multi-actor, multifactor context in India. Similarly, it is difficult to assess the effectiveness and impact of activities geared at communications, publications, and outreach. While output-based tracking of these activities is possible, their influence on long-term environmental changes is difficult to establish. Emphasis has thus been placed on describing the GEF contribution in these fields.
- Attribution was another challenge faced in the CPE. The evaluation only assessed the contribution of GEF support to overall achievements, and did not attempt to determine the extent to which impacts could be attributed directly to GEF activities. This challenge was also foreseen in the terms of reference.
- Many projects do not clearly specify the expected impact, or sometimes even the outcomes, of projects. Therefore, weaknesses due to poor documentation, lack of tracking of impacts, and challenges in ascertaining impact on the legal and policy framework were some of the other limitations faced.

The evaluation team was not able to conduct field verification for two UNIDO-implemented and MoEF-executed projects, as the contract between UNIDO and the MoEF did not require the latter to provide support to and facilitate GEF Evaluation Office evaluations. Although the executing agency agreed to facilitate field verification upon intervention from the GEF operational focal point, it made this cooperation contingent on its attending the interviews and meetings conducted by the evaluation team in the field. As this condition would have compromised the independent and unbiased nature of the evaluation, the offer was not accepted. Although further intervention from the operational focal point may have persuaded the executing agency to relinquish its condition, the project was dropped from fieldwork to ensure timely completion of the India CPE.

3. Context of the Evaluation

3.1 India: General Description

India is the seventh largest country by area and the second most populous country with over 1.2 billion people.[1] It is surrounded by the Bay of Bengal to the east, the Arabian Sea to the west, and the Indian Ocean to the south. It shares land borders with Pakistan to the west; Bhutan, China, and Nepal to the north; and Bangladesh and Burma to the east. Although there are considerable variations in climatic conditions across India, it may broadly be classified as tropical, with a climate marked by relatively high temperatures in summer and cool and dry in winter. The mainland comprises four regions: the great mountain zone, the plains of the Ganga and Indus, the desert region, and the southern peninsula. The Indian coastline is about 7,517 kilometers long, encompassing the mainland, the Lakshadweep Islands, and the Andaman and Nicobar Islands.

India is a democratic republic with a parliamentary system of government consisting of 28 states and 7 union territories. India is home to most of the world's religions, including Buddhism, Christianity, Hinduism, Islam, Jainism, and Sikhism, among others. Twenty-two different languages have been recognized by the Indian Constitution. India is one of the oldest civilizations in the world with a rich cultural heritage.

The Indian economy is the world's 10th largest in terms of nominal gross domestic product and third largest by purchasing power parity.[2] Per capita income is low. Following market-based economic reforms in 1991, India became one of the world's fastest growing major economies. Considered a newly industrializing country, it nevertheless continues to face challenges of poverty, illiteracy, corruption, malnutrition, inadequate public health care, and terrorism. India ranked 134th of 187 countries on the Human Development Index, which assesses long-term progress in health, education, and income indicators (UNDP 2011). A pluralistic, multilingual, and multi-ethnic society, India is also home to a wide variety of biodiversity in terms of both flora and fauna.

3.2 Environmental Resources in GEF Focal Areas

BIODIVERSITY

India is known for its rich biological diversity.[3] It is among the 17 mega-biodiverse countries in the world with 91,200 species of animals and 45,500 species of plants in 10 biogeographic regions. It is recognized as one of the world's eight Vavilovian centers of origin and diversity of crop

[1] This section is drawn from http://en.wikipedia.org/wiki/India.

[2] Source: World Bank, "GDP (current US$)," http://data.worldbank.org/indicator/NY.GDP.MKTP.CD.

[3] This section is drawn from MoEF (2009a).

plants, having more than 300 relatives of cultivated plants that are still under evolution under natural conditions. India also has a vast repository of traditional knowledge associated with biological resources. It ranks among the top 10 species-rich nations and shows high endemism among them (table 3.1). India contains four global biodiversity hotspots: Eastern Himalaya, Indo-Burma, Western Ghats, and Sundaland. The varied edaphic, climatic, and topographic conditions and years of geological stability have resulted in a wide range of ecosystems and habitats including forests, grasslands, wetlands, deserts, and coastal and marine ecosystems.

India's crop biodiversity is impressive with repositories of over 50,000 varieties of rice, 5,000 varieties of sorghum, and 1,000 varieties of mango, among others. The National Gene Bank, which is responsible for ex situ conservation of unique germ plasm on a long-term basis, holds 366,933 unique accessions of plant genetic resources. There are also vast and diverse forms of domesticated animal genetic resources such as cattle, buffalo, sheep, goat, pig, camel, horse, donkey, yak, mithun, duck, goose, and quail. Many rural communities, particularly the tribal communities, obtain a considerable part of their daily food from wild plants (UNEP 2001).

TABLE 3.1 **Number of Species in Major Plant and Microorganism Groups in India and the World**

	Number of species		% of India to the world
Group	India	World	
Virus/bacteria	850	8,050	10.6
Algae	7,175	40,000	17.9
Fungi	14,500	72,000	20.1
Lichens	2,223	13,500	16.4
Byrophytes	2,500	14,500	17.2
Pteridophytes	1,200	10,000	12.0
Gymnosperms	67	650	10.3
Angiosperms	17,527	250,000	7.0

SOURCE: Botanical Survey of India, as cited in MoEF 2009.

Indian biodiversity is under stress. It is estimated that, since its independence in 1947, the country has lost 4.696 billion hectares of forestland to nonforestry purposes (MoEF 1999):

- Illegal encroachment—0.07 million hectares
- Cultivation—4.37 million hectares
- River valley projects—0.52 million hectares
- Industries and townships—0.14 million hectares
- Transmission lines and roads—0.06 million hectares
- Miscellaneous—remainder

CLIMATE CHANGE

India is a party to the United Nations Framework Convention on Climate Change (UNFCCC), and the Indian government attaches great importance to climate change issues. The country's energy use over the past five decades has expanded, with a shift from noncommercial to commercial energy. Among commercial energy sources, the dominant source is coal with a share of 47 percent.

In 1994, 1,228,540 gigograms of carbon dioxide equivalent (CO_2e) of anthropogenic greenhouse gases (GHGs) were emitted from India (table 3.2), resulting in a per capita emission of about 1.3 tons (MoEF 2004).

India has reason to be concerned about the impacts of climate change. A large percentage of its population is dependent on climate-sensitive sectors such as agriculture and forestry for livelihoods. Any adverse impact on water availability due to recession of glaciers, decrease in rainfall, and increased flooding in certain pockets would threaten food security and the livelihoods of rural households, cause die-back of natural ecosystems including species that sustain nitrous oxide emissions, and negatively affect the coastal system because of sea level rise and the increased frequency of extreme climate events. Additionally, the achievement of vital national development goals related to other systems such as habitats, health,

TABLE 3.2 **India's Greenhouse Gas inventories of Anthropogenic Emissions (gigagram/year)**

GHG source and sink category	Emissions			CO_2 removals	CO_2e emissions[a]
	CO_2	Methane	Nitrous oxide		
Total (net) national emissions	817,023	23,533	18,083	178	1,228,540
1. All energy	679,470		2,896	11.4	743,820
Fuel combustion					
Energy and transformation industries	353,518			4.9	355,037
Industry	149,806			2.8	150,674
Transport	79,880		9	0.7	80,286
Commercial-institutional	20,509			0.2	20,571
Residential	43,794			0.4	43,918
All other sectors	31,963			0.4	32,087
Biomass burned for energy			1,636	2.0	34,976
Fugitive fuel emissions					
Oil and natural gas system			601		12,621
Coal mining			650		13,650
2. Industrial processes	99,878		2	9	102,710
3. Agriculture			14,175	151	344,485
Enteric fermentation			8,972		188,412
Manure management			946	1	20,176
Rice cultivation			4,090		85,890
Agricultural crop residue			167	4	4,747
Emissions from soils				146	45,260
4. Land use, land use change, and forestry[a]	37,675	23,533	6.5	0.04	14,292
Changes in forest and other woody biomass stock		14,252			(14,252)
Forest and grassland conversion	17,987				17,987
Trace gases from biomass burning			6.5	0.04	150
Uptake from abandonment of managed lands		9,281			(9,281)
Emissions and removals from soils	19,688				19,688
5. Other sources as appropriate & to extent possible					
5a. Waste			1,003	7	23,233
Municipal solid waste disposal			582		12,222
Domestic waste water			359		7,539
Industrial waste water			62		1,302
Human sewage				7	2,170
5b. Emission from bunker fuels[b]	3,373				3,373
Aviation	2,880				2,880
Navigation	493				493

SOURCE: MoEF 2004.

NOTE: Data are anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol for the base year 1994.

a. Converted using global warming potential indexed multipliers of 21 and 310 for converting methane and nitrous oxide, respectively, to CO_2e.

b. Not included in national totals.

energy demand, and infrastructure investments would be adversely affected.

A significant increase on the order of 0.4°C over the past 100 years in the annual global average surface air temperature has already been observed. Preliminary assessments for India based on regional climate model projections show shifts in forest boundary, changes in species assemblage or forest types, changes in net primary productivity, possible forest die-back in the transient phase, and potential loss or change in biodiversity (MoEF 2004). Enhanced levels of carbon dioxide (CO_2) are projected to result in an increase in the net primary productivity of forest ecosystems affecting more than 75 percent of the forest area. These impacts on forests will have adverse socioeconomic implications for forest-dependent communities and the national economy. The impacts of climate change on forest ecosystems are likely to be long term and irreversible. Thus, there is a need to develop and implement adaptation strategies to minimize possible adverse impacts. Further, there is a need to study and identify the forest policies, programs, and silvicultural practices that contribute to the vulnerability of forest ecosystems to climate change.

INTERNATIONAL WATERS

India has a coastline of more than 7,500 kilometers. Most of the country's major rivers such as the Brahmaputra, the Ganges, the Godavari, the Krishna, and the Mahanadi drain into the Bay of Bengal. The Narmada and the Tapti Rivers, on the other hand, drain into the Arabian Sea. India's rivers and its coastline have a wide range of biodiversity and ecosystems of considerable national and global significance.

The Bay of Bengal, which has an area of approximately 3.6 million square kilometers, has been identified as one of the world's 64 large marine ecosystems.[4] It contains approximately 3.6 percent of the world's coral reefs and has the largest mangrove system in the world—the Sunderbans—covering an area of 12,000 square kilometers. One-quarter of the world's population resides in countries surrounding the Bay of Bengal. The bay is a source of direct employment for 2 million in-shore fishers in the region. The Arabian Sea covers an area of 3.9 million square kilometers.[5] Like the Bay of Bengal, it has been classified as a large marine ecosystem and is considered to be ecologically highly productive. The two bodies of water receive significant amounts of nutrient inflows from human activities upstream. They are also used for fisheries by surrounding countries and are important as trade routes.

Some of the rivers that pass through India have origins in Bangladesh, Bhutan, China, and Nepal. Some of those that originate in India drain through Pakistan. Water sharing of major rivers between India-Nepal, India-Pakistan, and India-Bangladesh has strained relationships between the neighboring countries. For example, construction of water projects on the Mahakali River led to tensions between India and Nepal. The conflict over the Ganges water between India and Bangladesh dates back to 1951, when India began construction of the Farakka Barrage so as to divert water from the Ganges to the Hooghly River (Abbas 1984; Beach et al. 2000; Biswas and Uitto 2001; Crow, Lindquist, and Wilson 1995; Rahaman 2009; Salman and Uprety 2002). Although the 1960 Indus Waters Treaty has stabilized water-sharing issues between India and Pakistan for many years, several conflicts continue in this regard. Moreover, the International Court of Arbitration at the Hague recently upheld India's right to divert water from the Rs 3,600-crore Kishenganga hydroelectric project in north Kashmir, which will further exac-

[4] The information presented in this section on the Bay of Bengal is drawn from Heileman, Bianchi, and Funge-Smith (2005).

[5] The information presented in this section on the Arabian Sea is drawn from Heileman, Eghtesadi-Araghi, and Mistafa (2005).

erbate issues between the two countries over usage of the river water.

LAND DEGRADATION

The natural resources of a country are of primary importance for the sustainability of ecosystems, conservation of natural resources, and optimal productivity of the land. Soils perform many functions including in biomass production, acting as habitat and green reservoir, and serving as one of the functional units for ecosystems. They are, however, vulnerable to degradation. Therefore, management of soil resources is essential for both continued agricultural productivity and protection of the environment. Lack of adequate information on soil resources and improper land use planning have resulted in many of the world's present problems of land degradation and desertification.

Desertification is land degradation in the drylands; it is caused by a number of factors, including climatic variations and human activities. Human causes include expansion of agriculture and unsustainable agricultural practices such as overcultivation, nutrient inputs, poor irrigation practices, deforestation, and overgrazing. Such unsustainable resource management practices are often induced by population pressures, social conflicts and disruption of social systems, inappropriate government policies, and poverty. People affected by desertification often need to draw on their limited assets in order to survive, which accentuates their poverty. This constitutes a vicious cycle linking deteriorating natural resources to deteriorating livelihoods as people need to encroach further on fragile soils, sparse vegetation, and limited water resources to meet their basic needs for food, shelter, and livelihood.[6]

Of the total land area of India, 15.8 percent is classified as arid, 37.6 percent as semi-arid, and 16.5 percent as dry subhumid (MoEF 2011a). There is a general consensus that this is a good estimate of the amount of dry land found in India (Kar et al. 2009). In comparison, there is less agreement on the extent of land degradation due to differences in the underlying conceptual approach and methods used for estimation (Kar et al. 2009). Most estimates of various government departments and agencies range between 146.6 million hectares (National Bureau of Soil Survey and Land Use Planning) and 55.3 million hectares (National Remote Sensing Agency). Indian government records—based on compilation of village revenue land data—on low-yielding or waste/barren lands show that 107 million hectares is affected by various land degradation processes.

A recent and more comprehensive assessment of land degradation undertaken by the Indian Space Research Organization indicates that 105.48 million hectares (32.07 percent) of the country's land is affected by land degradation, with the principle causes being water erosion (33.56 million hectares), wind (17.11 million hectares), and vegetation (17.63 million hectares) (Ajai et al. 2009). The arid area of western Rajasthan—including the Thar Desert—and Gujarat account for a significant proportion of the degraded lands in India (Kar et al. 2009).

CHEMICALS

The MoEF, the focal point in the Indian government for all matters relating to the environment, is the nodal ministry for the Stockholm Convention on POPs.[7] In this regard, its primary responsibility is to ensure coordination with all other ministries involved in addressing chemicals. The MoEF is also

[6] The information presented here on desertification is drawn from the Sustainable Rural Livelihoods Security through Innovations in Land and Ecosystem Management (GEF ID 3470) project description at http://slem-cpp.icfre.gov.in/details.php?pgID=sb_17.

[7] The information in this section is taken from MoEF (2011c).

the nodal agency at the central level for planning, promoting, and coordinating environmental programs apart from policy formation. It is mandated to protect India's land, air, and water systems and is responsible for the prevention and control of pollution, including hazardous substances.

The MoEF is empowered to promulgate rules under the Environmental Protection Act and various other acts and is responsible for ensuring effective implementation of legislation; monitoring and control of pollution, including pesticide levels in soil and water; environmental clearances for industrial and development projects; environmental research; promotion of environmental education, training, and awareness; coordination with concerned agencies at the national and international levels; and forest conservation development and wildlife protection. The MoEF establishes standards for the quality of the environment, including emissions and/or discharges of environmental pollutants from various sources. Table 3.3 lists some the important persistent pollutants along with their legal status in India.

Executive responsibility for industrial pollution prevention and control is executed by the Central Pollution Control Board at the central level; the board is a statutory authority attached to the MoEF. It advises the central government on matters concerning prevention, control, and abatement of water and air pollution, and assists in the establishment of standards for water and air quality. The board also helps ensure compliance with the Environmental Protection Act and develops nationwide programs for the prevention, control, and abatement of water and air pollution.

The state pollution control boards/pollution committees (for union territories) are the designated agencies that protect India's land, air, and water systems at the state and union territory level. The boards monitor emissions levels and are responsible for enforcement—including initiating legal action against defaulters—of the provisions of the Water and Air Pollution Acts, the Environmental Protection Act, the Public Liability Act, and other relevant acts. They authorize the establishment of waste processing and disposal facilities, and oversee compliance of the Hazardous Waste Rules, including providing authorization for the operation of a facility that deals with hazardous waste within their respective states. The boards also advise the state government on prevention, control, and abatement of POPs.

3.3 The Environmental Legal Framework in India

India has taken several initiatives nationally, as well as on the international front, partnering with UN

TABLE 3.3 **Legal Status of Persistent Organic Pollutant Pesticides in India**

Chemical	Category	Status
Aldrin	Pesticide	Banned manufacture, use, and import
Chlordane	Pesticide	Banned manufacture, use, and import
Dieldrin	Pesticide	Banned manufacture, use, and import
Endrin	Pesticide	Banned manufacture, use, and import
Heptachlor	Pesticide	Banned manufacture, use, and import
Hexachlorobenze[a]	Pesticide/industrial chemical	Never registered as a pesticide
Mirex	Pesticide	Never registered
Toxaphene	Pesticide	Banned for manufacture, use, and import
Dichlorodiphenyltrichloroethane (DDT)	Pesticide	Banned with restricted use

SOURCE: Adapted from MoEF 2011c.

a. The government is in the process of banning hexachlorobenze as an industrial chemical.

bodies and accessing GEF funds to facilitate environmentally sound planning and management and the development of necessary legal and regulatory measures regarding hazardous wastes, biodiversity conservation, forest conservation, GHG emissions, etc. India's Five-Year Plans have, over the years, sought to keep the country's environmental policy updated.

The MoEF is the nodal agency in the central government's administrative structure for planning, promoting, coordinating, and overseeing the implementation of India's environmental and forestry policies and programs. The ministry also serves as the nodal agency in the country for UNEP, the South Asia Co-operative Environment Programme, the International Centre for Integrated Mountain Development, and the United Nations Conference on Environment and Development. It is also entrusted with issues relating to multilateral bodies such as the Commission on Sustainable Development and the GEF, and to regional bodies such as the United Nations Economic and Social Council for Asia and the Pacific and the South Asian Association for Regional Cooperation on matters pertaining to the environment.

A substantial body of Indian law exists covering biodiversity, climate change, and organic and inorganic pollutants. More laws and national actions are needed, however, to address concerns related to international waters and land degradation, which are two important GEF focal areas. Table 3.4 lists selected laws and regulations addressing environmental priorities in India.

3.4 Environmental Policy Framework in India

Between the years 2000 and 2006, India passed a number of national laws such as the Noise Pollution (Regulation and Control) Rules (2000), the Ozone-Depleting Substance (Regulation) Rules (2000), and the Energy Conservation Act (2001); as well as a number of laws related to forest and biodiversity conservation and renewable energy, such as the Biological Diversity Act (2002), the Forest Conservation Rules (2003), and the Forest Rights Act (2006). During this period, India also ratified a host of international conventions and treaties, as summarized below.

India became a signatory to the Rotterdam Convention, which addresses concerns related

TABLE 3.4 **Selected National Laws and Regulations in India on the Environment**

Law/regulation	Year enacted
The Forest Charter	1855
The Indian Forest Act	1865 (amended 1878, 1927)
The Indian Forest Act	1878
The Indian Forest Act	1927
India's Forest Policy	1894
The Van Panchayat Act in Himalayan Forests	1931
National Forest Policy Resolution	1952
The Shore Nuisance (Bombay and Kolaba) Act	1853
The Serais Act	1867
Indian Easements Act	1882
Indian Ports Act	1908
The Destructive Insects and Pests Act	1914
Indian Forest Act	1927

(continued)

TABLE 3.4 **Selected National Laws and Regulations in India on the Environment** *(continued)*

Law/regulation	Year enacted
National Forest Policy	1952
The River Boards Act	1956
The Merchant Shipping Act	1958
The Prevention of Cruelty to Animals Act	1960
Energy Survey Committee of India	1965
The Wildlife Protection Act	1972
Marine Products Export Development Authority Act	1972
National Wildlife Action Plan	1973
Fuel Policy Committee	1974
Water (Prevention and Control of Pollution) Act	1974
42 Amendment to the Constitution of India	1976
Working Group on Energy Policy	1977
The Water (Prevention and Control of Pollution) Cess Act	1977
Department of Environment	1980
Forest Conservation Act	1980
The Air (Prevention and Control of Pollution) Act	1981
Advisory Board on Energy	1983
Ministry of Environment and Forests	1985
The Environment (Protection) Act	1986
Advisory Board on Energy Efficiency in Prime Minister's Office	1987
Indian Renewable Energy Development Agency	1987
The Mangrove Conservation Programme	1987
The Bio-Medical Waste (Management and Handling) Rules	1988, 2003
The Motor Vehicles Act	1988
National Forest Policy	1988
The Hazardous Waste (Management and Handling) Rules	1989, 2003, 2008
The Public Liability Insurance Act	1991
Coastal Regulation Zones	1991
Policy Statement on Abatement of Pollution	1992
Chemical Accidents (Emergency Planning, Preparedness and Response) Rules	1991
The Foreign Trade (Development and Regulation) Act	1992
National Conservation Strategy and Policy Statement on Environment and Development	1992
Ministry of New and Renewable Energy	1992
Environmental Action Program	1993
Environment Impact Assessment Notification	1994
Environmental Impact Assessment Notification	1994, 2006

to the import of hazardous chemicals, in 2005. Similarly, it became a signatory to the Stockholm Convention on POPs in 2002 and ratified it in 2006. The Stockholm Convention calls on parties to take action to eliminate the production of POPs, minimize unintentional sources, and clean up and safely manage remaining stockpiles and wastes.

India became a party to the UNFCCC, signing it in 1992 and ratifying it in 1993. As an early signatory to the convention, it began taking steps to address climate change–related issues in the country. Subsequently, it ratified the Kyoto Protocol in 2002.

In some ways, the groundwork for these actions had been carried out during the early 1990s when a number of national laws and rules were framed, including the Policy Statement on Abatement of Pollution (1992), and the National Conservation Strategy and Policy Statement on Environment and Development (1992). Most importantly, a new ministry—the Ministry of New and Renewable Energy—was established in 1992. Within two years, a notification regarding environmental impact assessment was passed; in 1995, the National Environment Tribunals Act was passed. The enactment of such laws, especially those concerning pollution and waste management, reflects India's rising level of awareness regarding environmental concerns. During this period, the GEF also began providing support to India through projects on renewable energy, climate change, biodiversity, and pollution control, among others.

Table 3.5 lists the key international conventions and treaties to which India is a party. Figure 3.1 shows the timing of GEF projects vis-à-vis the ratification and development of treaties and conventions, national laws, and policies. Some of the GEF-supported enabling activities have helped India in reporting to the international environmental conventions, such as the Convention on Biological Diversity (CBD) and the UNFCCC.

BIODIVERSITY

India has made a vigilant and conscious effort to reduce pressure on the biodiversity of various ecosystems by framing national laws, rules, and regulations such as the Wildlife Protection Act of 1972 and the Biological Diversity Act of 2002. To conserve forests, a number of laws have been framed such as the Indian Forest Charter of 1855, the Indian Forest Policy of 1891, the Indian Forest Act of 1865 (which was amended in 1878 and 1927), and the Forest Conservation Act of 1980.

On the international forum, India became a signatory to the CBD in 1993 and ratified it in 1994. It ratified the Cartagena Protocol in 2003. Its first national report to the CBD, with GEF support, was carried out in 1997–98. During 1998–2000, the GEF was also involved in helping the country prepare a National Biodiversity Strategy and Action Plan. India hosted the CBD's 11th Conference of the Parties October 8–19, 2012, in Hyderabad.

India's National Biodiversity Authority was established in October 2003.[8] It focuses and advises the government on conservation of biodiversity, sustainable use of its components, and securing equitable sharing of benefits arising out of the utilization of biological resources. It regulates access to such resources and associated traditional knowledge for research and/or commercial purposes, biosurvey, and bio-utilization as well as the transfer of research results. Also, it advises state governments in the selection of areas of importance such as biodiversity heritage sites and suggests measures for the management of such sites.

CLIMATE CHANGE

India is a party to the UNFCCC. The convention aims to stabilize GHG concentrations in the

[8] The information on the National Biodiversity Authority is taken from NBA (2007).

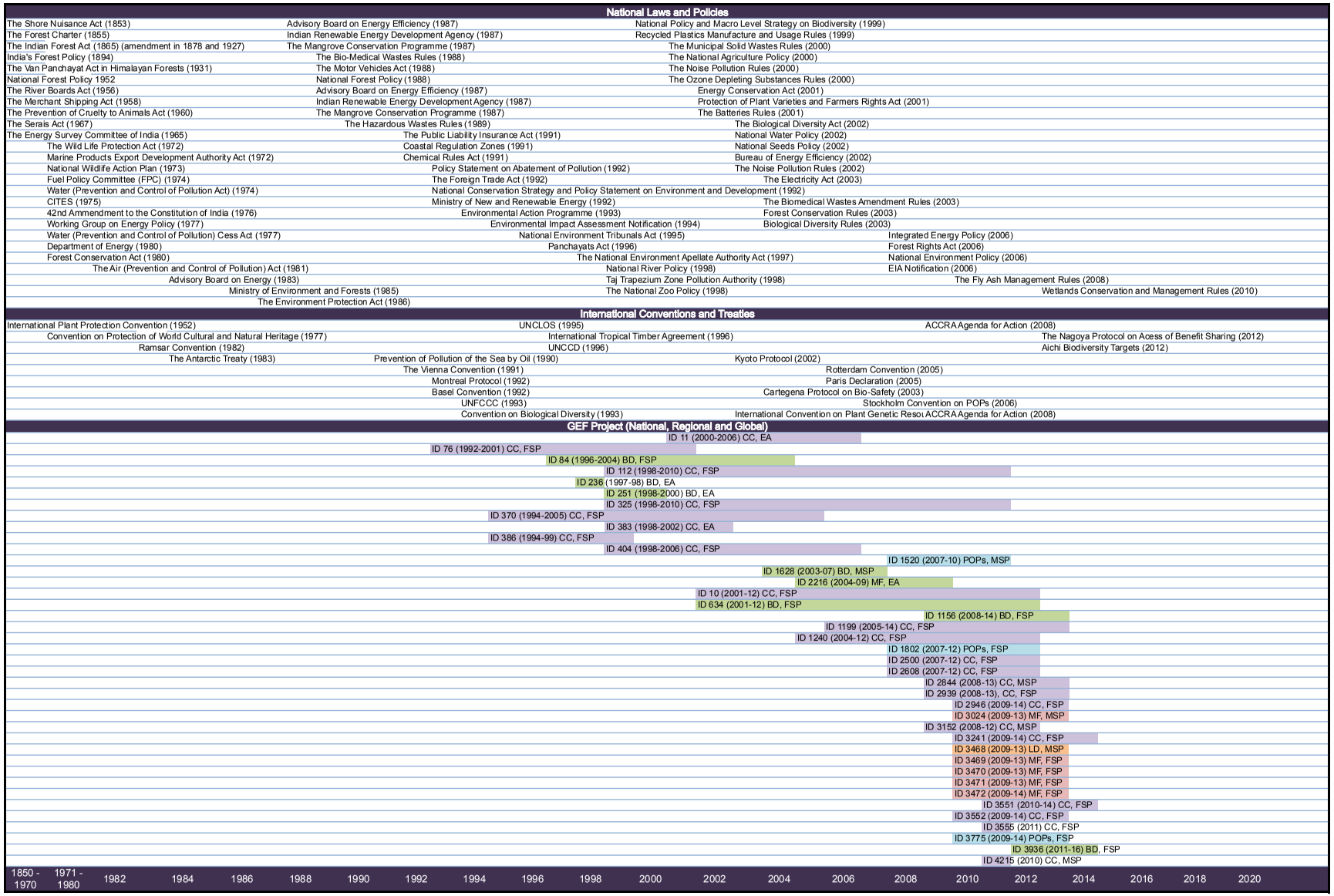
TABLE 3.5 **International Environmental Conventions and Agreements Ratified by India**

Convention/agreement/treaty	Year signed	Year ratified
International Plant Protection Convention	1952	1952
Prevention of Pollution of the Sea by Oil	1954	1990
The Antarctic Treaty (Washington, 1959)	1961	1983
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	1963	1975
United Nations Conference on the Human Environment (Stockholm)	1972	
Convention Concerning the Protection of the World Cultural and Natural Heritage	1972	1977
Convention on International Trade in Endangered Species of Wild Fauna and Flora	1975	1976
Ramsar Convention	1975	1982
United Convention on the Law of the Sea (UNCLOS)	1982	1995
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)	1983	
International Tropical Timber Agreement	1983	1996
Vienna Convention	1985	1991
Montreal Protocol (Ozone Treaty)	1987	1992
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	1989	1992
United Nations Commission on Sustainable Development (for implementation of Agenda 21)	1992	
Rio Conference (Earth Summit)	1992	
United Nations Framework Convention on Climate Change (UNFCCC)	1992	1993
Convention on Biological Diversity	1992	1993
United Nations Convention to Combat Desertification (UNCCD)	1994	1996
Kyoto Protocol to UNFCCC	1997	2002
Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals in International Trade	1998	2005
Cartagena Protocol on Biosafety	2000	2003
Millennium Development Goals (at World Summit on Sustainable Development)	2000	
Stockholm Convention on Persistent Organic Pollutants (POPs)	2001	2006
International Treaty on Plant Genetic Resources for Food	2001	2002
Strategic Approach to International Chemicals Management (SAICM)	2006	
Nagoya Protocol on Access and Benefit-Sharing	2010	2012
Aichi Biodiversity Targets		2012

atmosphere at levels that would prevent dangerous anthropogenic interference with the climate system. Eradication of poverty, avoiding risks to food production, and sustainable development are three principles embedded in the convention. India hosted the Eighth Conference of the Parties to the UNFCCC in 2002 in New Delhi.

India continues to seek ways to reduce emissions by increasing energy efficiency and the role of renewable energies. Energy efficiency is on India's policy agenda, and legislation on the topic has recently been formulated and implemented. The next step in the process is to encourage investments in energy efficiency using market mechanisms. The Energy Conservation Act of 2001, the Electricity Act of 2003, and the Energy Policy of 2006 are some of the significant laws aimed at reducing the nation's heavy dependence on conventional sources of energy. Under the provisions of the Energy Conservation Act, India established the

FIGURE 3.1 Timeline of Implementation of GEF Projects in India and Relevant Developments in Legal and Regulatory Framework



NOTE: See annex F for GEF India portfolio project names and related details.

Bureau of Energy Efficiency in 2002. Several GEF projects have been initiated in coordination with national laws and regulations to promote the use of alternative sources of energy.

INTERNATIONAL WATERS

India has a strict code of conduct when it comes to international waters. As a peninsula, India is surrounded by water on three sides and is therefore susceptible to security threats from the sea. The Merchant Shipping Act (1958), the Marine Products Export Development Authority Act (1972), and the National Water Policy (2012) are steps toward addressing India's sea-based security threats. The International Convention for Prevention of Pollution of the Sea by Oil, which was adopted globally in 1954, was ratified by India in 1990. While the National Water Policy does not specifically address pollution in transboundary rivers, it does indicate that India may enter into international agreements with neighboring countries for information exchange and data sharing, and to manage and share international rivers.

LAND DEGRADATION

India is among the 191 parties that have ratified the United Nations Convention to Combat Desertification (UNCCD). India became a signatory to the UNCCD in 1994, and ratified it in 1996. With about 32 percent of its land affected by degradation, India is committed to implementing the convention. The MoEF is the nodal ministry in the Indian government for the UNCCD; its desertification cell coordinates all issues pertaining to the convention. India actively participates in international events on desertification and currently chairs UNCCD's Regional Implementation Annex for Asia. It has several national action programs to mitigate the effects of drought. These programs incorporate long-term drought mitigation strategies supported by international cooperation and partnership arrangements.

CHEMICALS

India has enacted the Environmental Protection Act (1986, amended in 1991) and the Insecticides Act (1968) to protect its environment from POPs. Many similar laws, such as the 1981 Air (Prevention and Control of Pollution) Act and the 1974 Water (Prevention and Control of Pollution) Act, have also been framed. These are important steps toward decreasing emissions of organic and inorganic pollutants. In 1992, the country also became a signatory to two key international protocols: the Montreal Protocol on Substances That Deplete the Ozone Layer and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The Basel Convention is intended to minimize the toxicity of wastes generated and their environmentally sound management.

In response to the requirements of the Stockholm Convention, India developed and implemented an NIP, according to the rules and procedures of the convention. The NIP for India provides a basic and essential level of information to enable policy and strategic decisions to be made and to identify priority activities that India should undertake in order to meet the requirements of the Stockholm Convention. A GEF project was implemented in India to aid in the preparation of its NIP.

4. The GEF Portfolio in India

The GEF provides funding to achieve global environmental benefits with regard to biodiversity, climate change, international waters, depletion of the ozone layer, land degradation, and chemicals, according to their respective international agreements.

GEF-supported activities are implemented by its Agencies: UNDP, UNEP, the World Bank, the regional development banks, the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development, and UNIDO. These Agencies have direct access to GEF funding through a memorandum of understanding with the GEF.

GEF-supported modalities include the following:

- **FSPs,** which have funding of more than $1 million (more than $2 million since January 2013)
- **MSPs**, which have funding of $1 million or less ($2 million or less since January 2013)
- **Enabling activities**, which are intended to help countries meet their obligations under the various conventions for which the GEF serves as a financial mechanism and to facilitate creation of an enabling environment for addressing global environmental concerns
- **SGP projects**, which are administered by the UNDP and generally receive grants of less than $50,000 for NGOs and CBOs to address global environmental concerns at the local level

This chapter presents an overview of GEF support to India. It summarizes the GEF's portfolio in India by replenishment period, Agency, and focal area; information is also provided on funding and status.

4.1 Defining the GEF Portfolio

The GEF portfolio for the India CPE includes all proposals that had been submitted to the GEF up to May 23, 2012, for activities to be undertaken in India or activities where India is among the participating countries. This set includes proposals that are at a preapproval stage, dropped project proposals, projects that have been approved but whose implementation has yet to start, canceled projects, projects that are under implementation, and projects that have been completed. It also includes activities supported through the GEF's SGP.

To identify these activities, data on GEF projects was downloaded from the GEF PMIS. Data on SGP grants in India were requested from the SGP national coordinator. The project list generated through the PMIS was then shared with the GEF operational focal point in India and the various GEF Agencies for vetting. It was additionally vetted through triangulation with information available from other data sources, including documents available through the PMIS. Through this iterative process, the data sets were updated, missing projects identified, and a final list of 130 projects and 319 small grants relevant to the India CPE prepared.

To determine whether the GEF has made an allocation for a project, those proposals that had been approved by the GEF Council by July 1, 2012, were considered. For projects approved under expedited procedures, approval by the GEF CEO was taken as the threshold. These thresholds of Council and CEO approval are important, because it is at these points that the GEF reserves (i.e., allocates) resources for the corresponding projects. For the SGP, the data set of small grants approved up to June 28, 2012, was taken into account.

PROJECTS IN THE GEF INDIA PORTFOLIO

Since its pilot phase and throughout its subsequent operational phases, the GEF has supported a wide range of projects in the biodiversity, climate change, international waters, land degradation, and chemicals focal areas. GEF financial support to national projects in India and to regional and global projects in which India has participated is presented in annex F.

The GEF portfolio analysis includes 130 projects with varied operational status; the complete portfolio of national, regional, and global projects is listed in annex F. To further define the portfolio, projects were divided into two categories:

- **Category 1**—projects for which the GEF has made an allocation (71 projects)[1]
  - Completed projects including those that had been canceled but for which at least some part of the GEF grant had been utilized
  - Projects under implementation
  - Projects that have been approved by the GEF Council, or approved by the CEO under expedited procedures
- **Category 2**—projects for which no allocation was made (59 projects)
  - Projects that were canceled without implementation
  - Dropped project proposals
  - Proposals rejected by the CEO
  - Projects yet to be approved by the GEF Council or by the CEO under expedited procedures

In discussing the GEF portfolio in India in terms of scale of GEF support, projects from the first category have been taken into account. Projects in the second category have been considered for analysis of the project cycle, but excluded from consideration in the analysis of scale of GEF support for various priorities.

Table 4.1 presents an overview of the GEF India portfolio—including national, regional, and global projects—in terms of the number of projects by focal area, GEF support, and cofinancing. It is estimated that as of July 2012 the GEF had allocated $411.2 million for the 55 national projects and 319 small grants in India. These activities involved aggregate cofinancing commitments of $3.215 billion by other partner organizations.

India also participated in 16 global or regional projects with total GEF support (across all the countries involved in the projects) of $99.2 million. For seven of these projects, the GEF allocated $19.85 million for activities that were executed in India.[2] For the remaining nine projects—for which

[1] The category could potentially also include projects that were canceled after partial implementation. However, no such projects were identified in GEF's India portfolio.

[2] The projects are: Photovoltaic Market Transformation Initiative (GEF ID 112), Conservation and Sustainable Management of Below Ground Biodiversity, Phase I (GEF ID 1224), Development of a Strategic Market Intervention Approach for Grid-Connected Solar Energy Technologies (EMPower) (GEF ID 1599), Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury (GEF ID 1802), Conservation and Sustainable Management of Below Ground BD, Tranche 2 (GEF ID 2342), Solar

TABLE 4.1 **GEF Support to National, Regional, Global, and Small Grants Projects in India, by Focal Area**

	National projects						Regional and global projects[a]					
			GEF grant		Cofinancing				GEF grant		Cofinancing	
Focal area	No.	%	million $	%	million $	%	No.	%	million $	%	million $	%
Biodiversity	12	22	65.9	16	178.9	6	5	31	22.6	23	44.2	21
Climate change	31	55	251.6	62	2,485.9	77	7	44	46.1	46	119.9	56
International waters	—	—	—	—	—	—	2	13	18.5	19	36.6	17
Land degradation	1	2	1.0	0	1.0	0	—	—	—	—	—	—
Chemicals	4	7	38.4	10	107.6	4	1	6	11.1	11	13.0	6
Multifocal	7	13	46.1	11	428.9	13	1	6	0.9	1	1.0	0
Total	55	100	403.0	100	3,202.4	100	16	100	99.2	100	214.7	100
SGP	319		8.2		12.1							
Grand total			411.2		3,214.5		16		99.2		214.7	

a. The GEF funds and cofinancing amounts given for the global and regional projects represent the total amounts provided for all the participating countries taken together.

country component figures were not available—the total GEF grant was divided by number of participating countries to determine India's estimated share ($6.12 million). Thus, the GEF has provided an estimated $26 million through regional and global projects for activities executed in India.

GEF FUNDS AND COFINANCING

Of the 22 completed projects within the GEF India portfolio, figures for the utilization of the GEF grant were available for 21, while the corresponding cofinancing materialization figures were available for 16. The overall utilization of GEF funds is high at 95.6 percent on average, with 14 projects having a 100 percent utilization.

The GEF considers cofinancing to be important in enhancing country ownership and increasing the level of participation of partner organizations. Given its limited resources, the GEF also considers mobilization of cofinancing to be a vital instrument in enhancing the transformative impacts of its support. Based on figures reported by the GEF Agencies, overall materialization of cofinancing for the 16 projects for which these data are available is 102 percent. For 10 of the projects for which data on cofinancing were available, the reported materialized cofinancing was equal to or greater than the amount promised at the start of the project; in fact, two projects achieved more than three times that originally planned. At the other extreme, one project's materialized cofinancing was less than 50 percent of that committed. For the remaining five projects, the materialized cofinancing was between 50 and 100 percent of the committed cofinancing.

4.2 GEF Support by Replenishment Period

GEF funds to India are sourced through two separate trust funds—the GEF Trust Fund and the Special Climate Change Fund. Table 4.2 shows allocations made from these two sources by GEF replenishment period to projects in the GEF India portfolio.

In terms of GEF allocations, climate change accounts for 63 percent of the total portfolio,

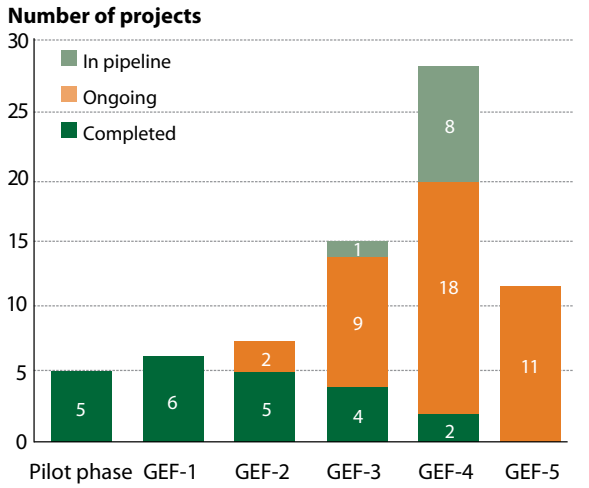
Water Heating Market Transformation and Strengthening Initiative, Phase 1 (GEF ID 2939) and Reversing Environmental Degradation and Rural Poverty through Adaptation to CC in Drought Stricken Areas in Southern India: A Hydrological Unit Pilot Project Approach (under India: SLEM) (GEF ID 3882).

TABLE 4.2 **GEF India Portfolio by Replenishment Period and Funding Source**

Period	No. of projects	GEF grant (million $)	
		Trust Fund	SCCF
Pilot	5	41.3	—
GEF-1	6	50.4	—
GEF-2	7	15.4	—
GEF-3	14	82.5	—
GEF-4	28	139.4	—
GEF-5	11	90.3	9.8
Total	71	419.1	9.8
SGP	319	8.2	
Grand total		437.2	

NOTE: SCCF = Special Climate Change Fund. Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

FIGURE 4.1 **GEF Projects in India by Replenishment Period and Status**



making it the largest focal area in the GEF's India portfolio. Biodiversity accounts for 16 percent of the portfolio (table 4.3).

Figure 4.1 presents an overview of GEF projects in India distributed by GEF replenishment period and stage of implementation.

Table 4.4 summarizes GEF grant allocations by project status—completed, ongoing, and in pipeline—across the GEF replenishment periods.

TABLE 4.4 **Distribution of GEF Grants by Replenishment Period and Project Status**

Period	GEF grant (million $)			
	Completed	Ongoing	In pipeline	Total
Pilot	41.3	—	—	41.3
GEF-1	50.4	—	—	50.4
GEF-2	3.3	12.1	—	15.4
GEF-3	1.5	72.5	8.5	82.5
GEF-4	4.3	97.2	37.9	139.4
GEF-5	—	—	100.1	100.1
Total	100.8	181.7	146.4	429.0

NOTE: Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

TABLE 4.3 **GEF India Portfolio by Replenishment Period and Focal Area**

Period	Biodiversity		Climate change		Internat'l waters		Land degradation		Chemicals		Multifocal	
	No. of projects	GEF grant (mil. $)	No. of projects	GEF grant (mil. $)	No. of projects	GEF grant (mil. $)	No. of projects	GEF grant (mil. $)	No. of projects	GEF grant (mil. $)	No. of projects	GEF grant (mil. $)
Pilot	—	—	5	41.3	—	—	—	—	—	—	—	—
GEF-1	3	21.0	3	29.4	—	—	—	—	—	—	—	—
GEF-2	3	8.7	3	6.4	—	—	—	—	—	—	1	0.2
GEF-3	4	15.0	7	64.8	1	1.7	—	—	1	0.8	1	0.2
GEF-4	6	17.9	12	66.7	1	0.2	1	1.0	3	28.1	5	25.4
GEF-5	1	6.4	8	62.9	—	—	—	—	1	10.3	1	20.5
Total	17	69.0	38	271.4	2	1.9	1	1.0	5	39.2	8	46.4

NOTE: Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

4.3 GEF Support by Agency

The GEF projects in India have been implemented by several GEF Agencies. Table 4.5 presents a detailed distribution of India's national, regional, and global projects by Agency. In terms of **number of projects**, UNDP is the leading GEF Agency in India, with 44 percent of the total number of GEF projects in the country. UNDP also jointly implements three additional projects, representing another 4 percent of the portfolio, as well as implementing the SGP. The World Bank implements 24 percent of the GEF projects in India; this includes one project implemented through the International Finance Corporation. In addition, the World Bank jointly implements another three projects (4 percent of the portfolio). After UNEP, which implements 10 projects (14 percent of the portfolio) and jointly implements another 2, UNIDO has the next largest number of projects in India with 6 projects (8 percent) and 1 jointly implemented project.

In terms of **share of funds**, the World Bank is the leading GEF Agency in India, accounting for about 47 percent of total GEF support to the country, including those expended for SGP grants. The World Bank also accounts for about 68 percent of the total cofinancing generated for GEF's India portfolio (again, including funding for SGP grants).

4.4 GEF Support by Focal Area

Table 4.6 presents an overview of GEF grant funding and cofinancing associated with the different focal areas supported by the GEF in India.

TABLE 4.6 **GEF India Portfolio by Focal Area**

Focal area	No. of projects	GEF grant (million $)	Cofinancing (million $)
Biodiversity	17	69.0	184.8
Climate change	38	271.4	2,582.3
Internat'l waters	2	1.9	3.3
Land degradation	1	1.0	1.0
Chemicals	5	39.2	108.6
Multifocal	8	46.4	429.2
Total	71	429.0	3,309.3

NOTE: Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated.

TABLE 4.5 **Distribution of GEF Projects in India by GEF Agency**

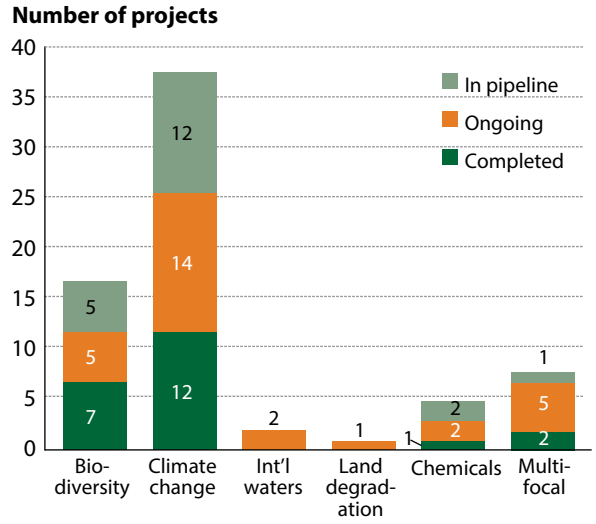
	Completed			Ongoing			In pipeline					
Agency	N	R	G	N	R	G	N	R	G	Total	GEF grant (million $)	Cofinancing (million $)
UNDP	9	1				2	5			31	114.9	415.4
UNEP			6		1	1	2			10	10.0	19.0
WB[a]	3		1	6		1	6			17	199.9	2,242.9
ADB							1			1	1.8	54.7
FAO									1	1	0.9	2.7
FAO-WB					1					1	1.7	2.7
UNDP-UNEP						1				1	2.0	2.0
UNIDO	1			1			4			6	44.3	143.2
UNIDO-UNEP							1			1	10.3	40.0
WB-UNDP	1			1						2	43.1	386.7
Total	14	1	7	22	2	5	19		1	71	429.0	3,309.3

NOTE: ADB = Asian Development Bank; WB = World Bank; N = national; R = regional; G = global. The GEF grant and cofinancing figures for the regional and global projects are estimates, except for those projects where actual figures were available.

a. Includes one project implemented through the International Finance Corporation.

Together, the projects from the biodiversity (24 percent, 17 projects) and climate change (54 percent, 38 projects) focal areas comprise 77 percent of the GEF India portfolio, including national, regional, and global projects. The next largest shares of the portfolio are for the multifocal (8 projects), chemicals (5 projects), international waters (2 projects), and land degradation (1 project) focal areas. In terms of funding, climate change again accounts for the largest share (63 percent of the portfolio). Biodiversity has the next largest share (16 percent), followed by the multifocal area (11 percent), and chemicals (9 percent); the international waters and land degradation areas each account for less than 1 percent of total GEF support to India. Figure 4.2 presents an overview of the GEF projects in India distributed across the varied focal areas as well as within the different stages of implementation.

FIGURE 4.2 **GEF Projects in India by Focal Area and Status**



NOTE: Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated.

BIODIVERSITY

The biodiversity focal area of the GEF portfolio in India comprises 17 projects, corresponding to total GEF support of $69.0 million and cofinancing of $184.8 million. Table 4.7 presents the distribution by replenishment period of the number of projects in and funding for the biodiversity focal area.

CLIMATE CHANGE

The majority of projects in India's GEF portfolio belong to climate change focal area, i.e., 38 projects corresponding to a total GEF grant of $271.4 million and cofinancing of $2.582 billion. Table 4.8 presents the distribution by replenishment period of the number of projects in and funding for the climate change focal area.

CHEMICALS

The chemicals focal area of GEF's portfolio in India comprises five projects corresponding to a total GEF grant of $39.2 million and cofinancing of $108.5 million. Table 4.9 presents the distribution by replenishment period of the number of projects in and funding for the chemicals focal area.

MULTIFOCAL

The multifocal area includes those projects that have received funding from more than one focal area of the GEF. In all, multifocal area accounts for 8 projects corresponding to total GEF grants of $46.4 million and cofinancing of $429.2 million. Table 4.10 presents the distribution by replenishment period of the number of projects in and funding for the multifocal area.

OTHER FOCAL AREAS

Three projects in the GEF India portfolio are in focal areas other than those listed above; together, these account for GEF funding of $2.9 million and cofinancing of $4.3 million.

TABLE 4.7 Distribution of GEF Biodiversity Projects in India

	National projects						Global/regional projects					All projects		
Period	C	O	P	Total	GEF grant (mil. $)	Cofinancing (mil. $)	C	O	Total	GEF grant (mil. $)	Cofinancing (mil. $)	No.	GEF grant (mil. $)	Cofinancing (mil. $)
GEF-1	3	—	—	3	21.0	55.0	—	—	—	—	—	3	21.0	55.0
GEF-2	—	—	—	1	7.9	19.1	2	—	2	0.9	1.0	3	8.7	20.1
GEF-3	1	1	1	3	14.8	32.4	1	—	1	0.2	0.3	4	15.0	32.7
GEF-4	—	1	3	4	15.9	42.5	—	2	2	2.0	4.6	6	17.9	47.0
GEF-5	—	—	1	1	6.4	30.0	—	—	—	—	—	1	6.4	30.0
Total	4	3	5	12	65.9	178.9	—	—	5	3.1	5.8	17	69.0	184.8

NOTE: C = completed; O = ongoing; P = in pipeline. Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

TABLE 4.8 Distribution of GEF Climate Change Projects in India

	National projects						Global/regional projects						All projects		
Period	C	O	P	Total	GEF grant (mil. $)	Cofinancing (mil. $)	C	O	P	Total	GEF grant (mil. $)	Cofinancing (mil. $)	No.	GEF grant (mil. $)	Cofinancing (mil. $)
Pilot	4	—	—	4	40.5	435.7	1	—	—	1	0.8	0.3	5	41.3	436.0
GEF-1	2	—	—	2	14.2	41.8	1	—	—	1	15.2	90.0	3	29.4	131.8
GEF-2	1	1	—	2	6.2	4.7	1	—	—	1	0.2	0.3	3	6.4	5.0
GEF-3	—	4	—	4	61.9	319.7	1	2		3	2.8	3.1	7	64.8	322.7
GEF-4	1	7	3	11	65.8	567.7	—	—	1	1	0.9	2.7	12	66.7	570.4
GEF-5	—	—	8	8	62.9	1,116.2	—	—	—	—	—	—	8	62.9	1,116.2
Total	8	12	11	31	251.6	2,485.9	4	2	1	7	19.9	96.4	38	271.4	2,582.3

NOTE: C = completed; O = ongoing; P = in pipeline. Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

TABLE 4.9 Distribution of GEF Chemicals Projects in India

	National projects						Global/regional projects				All projects		
Period	C	O	P	Total	GEF grant (mil. $)	Cofinancing (mil. $)	O	Total	GEF grant (mil. $)	Cofinancing (mil. $)	No.	GEF grant (mil. $)	Cofinancing (mil. $)
GEF-3	—	—	—	—	—	—	—	1	0.8	0.9	4	0.8	0.9
GEF-4	1	1	1	3	28.1	67.7	1	—	—	—	—	28.1	67.7
GEF-5	—	—	1	1	10.3	40.0	—	—	—	—	1	10.3	40.0
Total	1	1	2	4	38.4	107.7	1	1	0.8	0.9	5	39.2	108.5

NOTE: C = completed; O = ongoing; P = in pipeline. Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

TABLE 4.10 **Distribution of GEF Multifocal Projects in India**

	National projects						Global/regional projects				All projects		
Period	C	O	P	Total	GEF grant (mil. $)	Cofinancing (mil. $)	C	Total	GEF grant (mil. $)	Cofinancing (mil. $)	No.	GEF grant (mil. $)	Cofinancing (mil. $)
GEF-2	—	—	—	—	—	—	1	1	0.2	0.3	1	0.2	0.3
GEF-3	1	—	—	1	0.2	0.1	—	—	—	—	1	0.2	0.1
GEF-4	—	5	—	5	25.4	313.9	—	—	—	—	5	25.4	313.9
GEF-5	—	—	1	1	20.5	115.0	—	—	—	—	1	20.5	115.0
Total	1	5	1	7	46.1	428.9	1	1	0.2	0.3	8	46.4	429.2

NOTE: C = completed; O = ongoing; P = in pipeline. Data include allocations or estimated allocations for the country components of the regional and global projects in which India has participated. Because GEF-5 is still ongoing, it is likely that funding approval for projects during this phase will increase.

4.5 Small Grants Programme

The SGP was launched globally in 1992 to complement other GEF grants by supporting the activities of NGOs and CBOs in developing countries. It is implemented by UNDP on behalf of the GEF partnership. The GEF SGP began in India in 1996–97 and is executed through the Centre for Environment Education. To date, the SGP has supported more than 250 NGOs implementing 319 small grants in India, with total funding of $8.2 million and estimated cofinancing of $12.1 million. It has provided grants for small-scale community-based activities addressing concerns in the GEF focal areas (table 4.11). The SGP does not have a geographical focus in India. As a result, grants provided by the program are fairly evenly distributed across the country.

TABLE 4.11 **India's Small Grants Programme Portfolio Funding by Replenishment Period and Focal Area**

SGP phase	Biodiversity		Climate change		International waters		Land degradation		Chemicals		Multifocal		Total	
	#	$	#	$	#	$	#	$	#	$	#	$	#	$
OP 1	9	140,093	6	111,825	—	—	1	8,430	1	23,349	6	74,951	23	358,648
OP 2	76	1,733,458	20	503,756	1	20,785	16	388,971	3	90,177	18	423,120	134	3,160,267
OP 3	30	647,944	16	483,634	1	33,954	14	372,800	6	164,304	12	305,879	79	2,008,515
OP 4	41	1,158,199	31	1,077,063	—	—	1	31,808	—	—	10	362,415	83	2,629,485
Total	156	3,679,694	73	2,176,277	2	54,739	32	802,009	10	277,830	46	1,166,365	319	8,156,914

NOTE: OP = operational phase. Pilot phase: June 1992–December 1996; OP1: January 1997–February 1999; OP2: March 1999–February 2005; OP3: March 2005–June 2007; OP4: July 2007–June 2011.

5. Results, Effectiveness, and Sustainability of GEF Support to India

This chapter discusses the results, effectiveness, and sustainability of activities supported by the GEF in India, including generation of global environmental benefits; broader adoption of promoted practices, technologies, and approaches; contributions to the legal, policy, and regulatory framework; and contributions to knowledge generation, information sharing, and capacity development.

The GEF M&E Policy (GEF EO 2010) defines **results** as "direct project outputs, short- to medium-term outcomes, and progress toward longer term impact including global environmental benefits, replication effects, and other local effects." It defines **effectiveness** as "the extent to which an objective has been achieved or how likely it is to be achieved" and **sustainability** as "the likely ability of an intervention to continue to deliver benefits for an extended period of time after completion."

Overall, the GEF portfolio in India has performed well in terms of achievement of outcomes at the point of completion. In the postcompletion period, several projects have shown significant progress toward their long-term impacts; and broader adoption of the promoted practices, technologies, and approaches has been reported. Changes in the legal, policy, and regulatory framework are difficult to attribute to GEF support, given the presence of multiple factors and actors. It is similarly difficult to link efforts aimed at knowledge generation, information sharing, and capacity development with the generation of global environmental benefits. Nonetheless, evidence indicates that the GEF has made significant contributions in these areas.

5.1 Key Results and Effectiveness

OUTCOME AND PROGRESS TO IMPACT RATINGS

The Evaluation Office rates project outcome achievements at the point of project completion through its terminal evaluation review process. Of the 22 completed projects in the India portfolio, the GEF Evaluation Office has provided outcome ratings for 11. The remainder have not been rated either because (1) their terminal evaluations were submitted before fiscal year 2005, which is when the GEF Evaluation Office began providing outcome ratings; or (2) they were enabling activities that involved less than $500,000 in GEF funding, for which size and type of project the Office does not provide outcome ratings. For the 11 projects for which the GEF Evaluation Office had not assessed outcome achievements, the India CPE team undertook desk reviews to rate performance using an approach consistent with that followed in the preparation of the terminal evaluation reviews.

The evaluation team also undertook desk reviews for all 22 completed projects to assess progress to impact at the point of project completion. Progress was rated using a rating scale described in table 5.1. The progress toward impact ratings for 10 of these projects were updated through field-based ROtI assessments. Table 5.2 presents the outcome achievements and progress toward impact of these completed projects.

TABLE 5.1 **Progress to Impact Rating Scale**

Score	Rating	Explanation
4	**High progress** to impact (intended global environmental benefits)	Either a or b (or both) are being met: a. Removal of threats and/or improvement of environmental status, at the highest level targeted by the project b. There is evidence that all of the following three conditions have been met: • Threat removal at the highest level targeted by the project has begun • Intermediate states (usually associated with medium-term outcomes) in the impact chain of causality have been reached and are durable • Effective and lasting mechanisms for stress reduction are in place
3	**Significant progress** to impact (intended global environmental benefits)	There is evidence that there has been significant movement to the achievement of the following conditions: • Threat removal at the highest level targeted by the project has begun • Intermediate states (usually associated with medium-term outcomes) in the impact chain of causality have been reached and are durable • Effective and lasting mechanisms for stress reduction are in place
2	**Moderate progress** to impact (intended global environmental benefits)	There is evidence that short-term outcomes of the project in the impact chain of causality have been achieved fully or significantly
1	**Low or negligible progress** to intended global environmental benefits	There is evidence that achievements in terms of short-term outcomes are low; major expected short-term outcomes have not been achieved
UA	Unable to assess	Available evidence is not sufficient to determine progress to impact

Of the 11 projects that were rated by the GEF Evaluation Office through its terminal evaluation review process, the outcomes of 10 have been rated in the satisfactory range, 5 were rated as having moderately satisfactory outcomes, and 5 as having satisfactory outcomes. One project—the NIP development project—was rated as having moderately unsatisfactory outcomes. Of the 11 projects that had not been rated previously by the GEF Evaluation Office, the evaluation team was able to rate 8 based on the information available for the desk review. The outcomes of all eight were rated in the satisfactory range. Thus, of 19 rated projects, the outcomes of 18 (95 percent) were rated in the satisfactory range. Across the GEF's global portfolio, the outcomes of 83 percent of completed projects have been rated in the satisfactory range. The performance of the India portfolio clearly exceeds the global average.

Based on desk review, completed projects were rated in terms of progress to impact made at the point of project completion. Of the 22 completed projects, the evaluation team was able to assess the performance of 13 projects. Some projects could not be rated because of a lack of adequate information. Others were not rated because they focused entirely on creating an enabling environment, which, although important for future work, is difficult to link directly to long-term environmental impacts. Of the 13 rated projects, 12 were assessed as having made moderate progress to impact at the point of completion. The remaining project, the NIP development project, was—based on the information available for desk review—rated as having achieved low or negligible progress at the point of project completion.

Field verifications were undertaken for 10 completed projects, including 7 for which progress to impact ratings at project completion had been assessed based on desk reviews. Field verification involved physical verification of the activities, interviews, and focus group discussions with key stakeholders. The verifications helped the team plug information gaps and gather additional

TABLE 5.2 **Outcome and Progress to Impact Ratings for Completed GEF India Projects**

GEF ID	Project name	Outcome rating	Progress to impact rating	
			Desk review	Field verification*
11	Enabling Activities for the Preparation of India's Initial Communication to the UNFCCC	HS	—	—
76	Alternate Energy Project*	S	M	S
84	India Eco-Development*	MS	M	S
112	Photovoltaic Market Transformation Initiative (India component)	MS	—	M
236	First National Report to CBD	S	—	—
251	National BD Strategy and Action Plan	—	—	—
325	Coal Bed Methane Capture and Commercial Utilization*	MS	M	M
370	Development of High Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions*	S	M	S
383	Selected Options for Stabilizing Greenhouse Gas Emissions for Sustainable Development	—	—	—
385	Asia Least-Cost Greenhouse Gas Abatement Strategy (ALGAS)	S	—	—
386	Optimizing Development of Small Hydel Resources in Hilly Areas*	MS	M	S
404	Energy Efficiency*	S	M	M
1224	Conservation and Sustainable Management of Below-Ground Biodiversity (Phase 1)*	S	—	M
1340	Promoting Industrial Energy Efficiency through a cleaner Production/ Environmental Management System Framework*	S	M	—
1378	Assessment of Soil Organic Carbon Stocks and Change at National Scales*	MS	M	—
1520	Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)	MU	L	—
1599	Development of a Strategic Market Intervention Approach for Grid-Connected Solar Energy Technologies (EMPower)	HS	M	—
1628	Capacity Building for Implementation of the Cartagena Protocol*	S	M	—
2092	Coastal Resilience to Climate Change: Developing a Generalizable Method for Assessing Vulnerability and Adaptation of Mangroves and Associated Ecosystems	S	M	—
2216	National Capacity Self-Assessment (NCSA) for Global Environment Management[a]	—	—	—
2342	Conservation and Sustainable Management of Below-Ground Biodiversity (Phase 2)	S	—	M
4215	Low Carbon Campaign for Commonwealth Games 2010 Delhi*	MS	M	M

NOTE: — = unable to assess or not assessed. *Outcome ratings:* HS = highly satisfactory; S = satisfactory; MS = moderately satisfactory; MU = moderately unsatisfactory; U = unsatisfactory; HU = highly unsatisfactory. *Progress to impact ratings:* S = significant; M = moderate; L = low or negligible. Outcome ratings for projects denoted with an asterisk (*) were provided by the GEF Evaluation Office through its terminal evaluation review process.

a. The project was an enabling activity with $200,000 in GEF funding. Given the small size of the GEF grant, no terminal evaluation was required for this project.

information regarding the postproject completion period. Four projects were assessed as having made significant progress during the postcompletion period. The ratings for these four projects were updated to significant progress to impact. The remainder were found to have made moderate progress. The high percentage of GEF projects rated in the satisfactory range and multiple projects demonstrating significant progress to their intended long-term impacts during the postproject completion period reflect favorably on the quality of the GEF portfolio in India.

During the postcompletion period, GEF projects are able to make further progress to their long-term impacts by sustaining the gains made while the project was under implementation through mainstreaming, replication, and up-scaling. While such sustenance facilitates the achievement of long-term impacts at a scale that was directly targeted by the project, mainstreaming, replication, and up-scaling further facilitate the achievement of results at scales that were beyond original project boundaries or help intensify efforts at the targeted scale.

There are several examples within the India portfolio of technologies and approaches promoted by GEF projects being adopted. Two projects experiencing adoption at a higher scale are Coal Bed Methane Capture and Commercial Utilization and Optimizing Development of Small Hydel Resources in Hilly Areas. While attention to follow-up activities aids in broader adoption, projects may be able to overcome the reverse in some cases. The India Eco-Development project pioneered a community-based approach to protected area management. Due to restructuring, however, the project component on preparing future biodiversity projects was dropped. Some stakeholders felt this cancellation compromised the momentum built up during the period immediately following project completion (IEG 2007). But by the time the India CPE was conducted, the national stakeholders had overcome this obstacle, and the community-based approach to protected area management had been mainstreamed, gaining wider acceptance within the country.

LEGAL FRAMEWORK

The development of India's environmental legal framework is complex in nature, making the impact of GEF projects—given the overlapping and interacting contributions of several other actors and factors—difficult to isolate. Nonetheless, several GEF projects are perceived as having contributed to the development of India's legal, policy, and regulatory environment.

The major contributions that may be linked to GEF projects include changes reflected in the national planning documents, working plan codes, and legal framework. The eco-development strategy promoted by the India Eco-Development project was included in the 10th national Five-Year Plan. It also inspired an amendment (Amendment No. 38X, 2006) to the Wildlife Act making it mandatory for all tiger reserves in the country to establish a foundation for management of the reserve. The Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States project is reported to have provided inputs for the development of the National Working Plan Code, which is expected to address the management of medicinal plant resources in forest areas. Projects such as the NIP development project have similarly contributed to the development of national plans.

Another effect of GEF projects such as the Coal Bed Methane Recovery and Commercial Utilization project has been to increase the profile of the addressed concerns and to motivate the government in identifying nodal agencies and establishing mechanisms for further work on the issue. Another case in point is the Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal Biodiversity project, which established the Gulf of Mannar Biosphere Reserve Trust. This trust has been made a statutory body of the government of Tamil Nadu.

KNOWLEDGE MANAGEMENT AND LEARNING

Promoting effective learning and experience sharing is an important GEF objective. The performance of GEF activities in this area has been fairly strong in India, generally characterized by an effective information dissemination and communication mechanism. GEF projects have disseminated project experiences and lessons through publications, conferences, project websites, research papers, books, workshops, CDs, toolkits, and handbooks, among other devices. Of the 22 completed projects, information about communication and outreach was available for 11. Terminal evaluation reports for these 11 projects noted that they had supported activities focused at communication, outreach, experience sharing, publication, etc. Because it is difficult to track the long-term results of such activities, the effectiveness of these communication and outreach efforts has not been assessed.

Information gathered through field visits and interviews with stakeholders shows that the communication and outreach efforts and publications developed by some GEF projects have been effective. This includes materials developed for promoting environmentally friendly life styles (Low Carbon Campaign for Commonwealth Games 2010 Delhi project), documentation of biodiversity richness (Gulf of Mannar Biosphere Reserve project), establishment of long-term mechanisms including e-libraries for information sharing (Coal Bed Methane Capture and Commercial Utilization project), and publications to share good practices (SLEM Program). Final output documents from several GEF-supported enabling activities have become important base documents for the respective sector to build upon (e.g., the national communication reports and the data contained in them are widely referred to by practitioners and cited by academics).

Desk review of project proposal documents shows that older projects had weaker designs. Generally, in these projects, the intervention logic and causal pathways were not clearly elaborated. Outputs were not distinguished from outcomes, and indicators were often inappropriate. Beginning in GEF-4, there seems to be greater comparability across projects in terms of how information is presented. There is an increased focus on the discussion of the relevance of the given project to GEF strategies, national priorities, the regional development agenda, the global environmental framework, etc.

The desk reviews and interviews with national stakeholders indicate that new project proposals are incorporating lessons from past interventions. Several GEF projects and programs have been designed based on past experiences. For example, projects formulated within the framework of the Energy Efficiency initiative and SLEM Program draw on lessons from similar past interventions. However, the manner in which these lessons have been incorporated has not been described with clarity in project proposals.

There is also evidence that lessons from GEF projects are being incorporated by agencies in projects and activities that are not supported by the GEF. For example, the Institute of Industrial Productivity and the German Society for International Cooperation (GIZ) have funded and invested in demonstration projects in sectors that are not covered by GEF support, such as foundries, as a result of the awareness and interest generated by the GEF project on Financing Energy Efficiency at Micro, Small and Medium Enterprises. The Tea Board of the Indian government has taken up the lessons learned from the Energy Conservation in Small Sector Tea Processing Units in South India project and initiated a replication of the project in Assam under the government's 12th Five-Year Plan.

5.2 Results by GEF Focal Area

BIODIVERSITY

Of the 22 completed projects in the GEF's India portfolio, 7 are in the biodiversity focal area. Of

these, the outcome achievements of six were rated—three by the GEF Evaluation Office and three by the India CPE team. The outcome achievements of five of these were rated as satisfactory and of one as moderately satisfactory.

Of the seven completed biodiversity projects, progress toward impact was rated by the India CPE team for three. Based on the evidence available for desk reviews, all three projects were assessed as having made moderate progress to impact at the point of project completion.

Three completed biodiversity projects were selected for field ROtI assessment. One of these was the India Eco-Development project, which had been rated on progress to impact achieved at the point of project completion based on desk review. The additional evidence gathered through field visits and interviews of key stakeholders showed that, during the postcompletion period, the project had made further progress toward its long-term achievements; its progress to impact rating was thus upgraded to significant. The progress to impact of the other two projects subjected to RotI assessment—Conservation and Sustainable Management of Below Ground Biodiversity (Phases 1 and 2), which the evaluation team had been unable to rate based on desk review—was assessed to be moderate.

One of the most visible results of the biodiversity projects is establishing a link between the local communities and conservation, along with ensuring long-term sustainability. The India Eco-Development project made significant contributions in this regard; contributions were also made by the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project and the Gulf of Mannar Biosphere Reserve project.

The biodiversity projects have had policy-level results as well. For example, the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project is revising India's Working Plan Code. This demonstrates the influence GEF-supported projects have on the policies of the Indian government.

The establishment of trusts or similar institutions as a means to implement GEF support to biodiversity conservation also reflects the GEF's policy influence at various levels. For example, the foundation and trust established, respectively, by the India Eco-Development project and the Gulf of Mannar Biosphere Reserve project have provided successful demonstrations of biodiversity conservation, carrying forward the projects' objectives postcompletion and leading to the achievement of outcome sustainability.

Another clearly demonstrable result of India's biodiversity projects is their influence on institutional and individual capacity building. The most prominent example in this regard is the Conservation and Sustainable Management of Below Ground Biodiversity (Phases 1 and 2).

Most of the SGP grants in India address issues relevant to biodiversity conservation at the local scale. Given their relatively small scale, much of the evidence of contribution from the SGP sites is anecdotal. Nonetheless, the SGP is perceived as making major contributions in terms of developing environmental conservation models that are providing an inspiration to various government, nongovernment, and private sector organizations. Various SGP grant–supported activities and/or the NGOs executing these projects have won awards in recognition of their contributions (table 5.3).

CLIMATE CHANGE

Of 22 completed projects in GEF's India portfolio, 12 were from the climate change focal area. Of these 12 projects, the outcomes of 11 were rated. All outcomes were assessed to be in the satisfactory range: for two projects, they were rated as highly satisfactory; for five as satisfactory; and for four as moderately satisfactory.

Based on the desk reviews, the evaluation team rated progress to impact of the completed projects at the point of project completion. Such ratings were provided for 8 of the 12 completed projects; all were rated to have made moderate progress.

TABLE 5.3 **Biodiversity Focal Area Achievements of the Small Grants Programme in India**

Year	Award	Executing NGO
2005	World Bank Development Marketplace Recognition Award	Society for Community Involvement in Development
2006	WATER AWARDS	The Andhyodaya
2007	Nehru Yuvak Kendra appreciation award	New Junoon Khel Yuvak Kalyan Aiwam Samaj Kalyan Samiti
2007	1st Bihar Innovation Forum Award	NIDAN
2007	Selected as one of the best practices	The Covenant Centre for Development
2008	Asian Scientific and Technical Awards of WASWC	KRAPAVIS
2008	Dubai International Award for Best Practices	ADHAR
2008	Dr. Bhimrao Ambedkar Award	Dalit Sangh
2008	SEED Awards	JAGRITI
2008	World Award	JANHIT
2008	Social Entrepreneur of the Year Award	NIDAN
2008	ASHDEN Award	TIDE (Technology Informatics Design Endeavour)
2009	Kubera-Edelweiss Social Innovation Honours	IBTADA
2009	One World Award & Green Apple Environment Award	JANHIT
2009	Ryutaro Hashimoto APFED Awards	Peekay Tree Crops Development Foundation
2009	Ashoka Senior Fellowship Award	SAMBANDH
2009	Indira Priyadarshini Vriksha Mitra Award	Women's Organisation for Socio-Cultural Awareness
2010	Best NGO award for GEF UNDP SGP partner	CREED
2010	National Award for Child Welfare 2009-2010	Dalit Sangh
2010	Energy Cake	Energy Research Application
2010	India Water Digest Award	Society for Sustainable Development
2011	Project on "Energy Cake" selected	Energy Research Application
2011	Earth Care Award 2011	Energy Research Application
2011	1st Runner-Up for Outstanding Annual Report	IBTADA
2011	India World Bank Development Marketplace	SAMBANDH
2012	Rajashri Shahu Gaurav Puraskar	Yerala Projects Society
2012	National Bank for Agriculture and Rural Development	IBTADA

These ratings were updated for seven projects based on field verification; during the period from project completion to conduct of field verification, three were assessed to have moved to achievement of significant progress, while the remaining projects continued to show moderate progress.

Many of the GEF climate change projects in India were technology demonstration projects that have effectively shown the commercial viability of energy efficiency, energy conservation, and renewable energy technologies; in this regard, they achieved their intended short-term impacts. The projects gave considerable attention to institutional strengthening, capacity development, and raising awareness of key stakeholders on technologies hitherto untested in India. The technologies promoted by GEF climate change projects—photovoltaic, coal bed methane capture, and small hydel resources—achieved traction among the targeted entrepreneurs and government agencies.

The climate change mitigation projects in the GEF's India portfolio have contributed to a reduction in GHG emissions. Table 5.4 shows estimated CO_2e emissions reductions resulting from the

TABLE 5.4 **Estimated Carbon Dioxide Emissions Reductions by GEF Projects in India**

Project[a]	GEF grant (mil. $)	Total funding (mil. $)	Expected benefit at project start (million tCO_2e)			Benefit estimated at project completion (million tCO_2e)			Benefit estimated during CPE (million tonnes CO_2e)		
			Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
GEF ID 76	26.0	280.0	5,750	600	6,350	6,600	n.a.	>6,600	6,600	n.a.	>6,600
GEF ID 112[b]	15.0	50.0[c]	800	n.a.	>800	63	n.a.	>63	228	n.a.	>228
GEF ID 325	9.2	19.0	1,700	n.a.	>1,700	71	n.a.	>71	71	n.a.	>71
GEF ID 370	5.5	10.0	n.a.	n.a.	n.a.	236	n.a.	>236	236	n.a.	>236
GEF ID 386	7.5	14.6	3	192	195	2	2,418	2,420	2	2,418	2,420
GEF ID 404	5.0	37.0	1,520	n.a.	>1,520	6,700	2,730	9,430	6,700	2,730	9,430
GEF ID 4215	0.9	3.6	n.a.	n.a.	n.a.	—	—	—	1,463[d]	n.a.	>1,463[d]

NOTE: n.a. = not available (not estimated); tCO_2e = tonnes of CO_2e. Funding figures are as of project approval.

a. GEF ID 76 = Alternate Energy; GEF ID 112 = Photovoltaic Market Transformation Initiative; GEF ID 325 = Coal Bed Methane Capture and Commercial Utilization; GEF ID 370 = Development of High-Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions; GEF ID 386 = Optimizing Development of Small Hydel Resources in Hilly Areas; GEF ID 404 = Energy Efficiency Project; GEF ID 4215 = Low Carbon Campaign for Commonwealth Games 2010 Delhi.

b. Only the India component of this project is considered.

c. Estimated.

d. The carbon sequestration calculation is based on the assumption that 2,800 species of *Eucalyptus grandis* is planted in a 1-hectare area, resulting in 450 saplings surviving and a carbon sequestration of 580 tC/hectare over a 30-year period. A similar sequestration is obtained for *Tectona grandis* with 500 surviving saplings of 1,650 planted in a 1-hectare area and carbon sequestration of 348 tC/hectare over 30 years (Source: CDM Executive Board 2009). Other information sources of sequestration for various species indicate a range from 0.321 tCO_2e/sapling for Neem to 1.443 tCO_2e/sapling for Khmar. A sequestration of 0.76 tCO_2e/sapling is therefore representative of the plantations dedicated to Commonwealth Games 2010 Delhi.

individual GEF projects over a 30-year period. Lack of proper tracking of indirect benefits and complications in addressing attribution make cost-effectiveness comparisons across different categories of projects difficult. However, reporting on direct benefits by the executing agencies was fairly consistent with the independent estimates made by the evaluation team. Overall, it may be reported that it cost the GEF about $4.50 per tonne of CO_2e direct benefits.

For most of the projects, direct benefits were a fairly significant part of total climate change mitigation benefits. However, the small hydel resources project was an exception; its indirect benefits were considerably higher than its direct benefits. In this project, the GEF had primarily supported preparation of zonal plans for 13 hilly states. Several state agencies used the sites identified in the zonal plan study to invite a global call for site allotment to hydropower sites; many of these sites are now up and running. Based on the information gathered during field verification, it may be inferred that by June 2003, the project had contributed to the creation of an additional installed capacity of 543.30 megawatts of power in the hilly regions of India. Significant progress in the small hydropower sector was observed in Himachal Pradesh, Uttarakhand, and Arunanchal Pradesh—all areas targeted by the project.

Some of the projects that were nearing completion at the time of the evaluation were also making contributions to CO_2 emissions reduction. The technologies promoted by the Energy Conservation in Small Sector Tea Processing Units in South India project had been successfully implemented in 200 such units, and the estimated direct CO_2 mitigation due to reduction in GHG emissions of these units over the project period was 263,952 tonnes against a target of 56,925 tonnes. Some of these benefits may be due to the replacement of obsolete machinery at the end of is operational life; it is difficult to ascertain the extent to which replacement

was driven by GEF projects as opposed to obsolescence. For the Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector in India project, technology demonstrations and information dissemination efforts have been effective in facilitating the spread of the promoted technologies—despite some resistance from early adopters in sharing complete information on efficiency gains with potential adopters.

CHEMICALS

The GEF chemicals portfolio is relatively new, although it is fast emerging as a major focal area for the GEF. The implementation of the first project of this focal area began in 2007 in India. In all, five projects—four national and one global—have been approved to date. Of the four national projects, one has been completed, one is under implementation, and two are in the pipeline.

Two projects from the chemicals focal area were initially selected for field verification: one, the NIP development project, had been completed; the other, Environmentally Sound Management and Final Disposal of PCBs in India, was under implementation. Although it was ultimately decided for separate reasons (discussed elsewhere in this report) to not proceed with field verification of either project, a few interviews were conducted with some relevant stakeholders at the national level. From the information gathered from available project documents and interviews, it may be inferred that the chemicals projects in India's GEF portfolio have made contributions by helping the country prepare its NIP to address POPs and thereby enabling it to meets its obligations under the Stockholm Convention. The NIP has identified short-, medium-, and long-term priorities for India's implementation of the convention. There is also an increased focus on better management of hazardous chemicals, apart from the influence of relevant policies.

The terminal evaluation report for the NIP project also notes several weaknesses of the project. It assesses the quality of the NIP to be low due to poor selection of the applied methodologies, limited consultations, ineffective M&E, and slow progress on legislation targeting POPs. Given the lack of field verification coverage for this focal area, the evaluation team was not able to determine the extent to which expected (or reported) results were actually achieved.

OTHER FOCAL AREAS

Besides its projects in the biodiversity, climate change, and chemicals focal areas, India's GEF portfolio has two projects in the international waters focal area, one in land degradation, and eight multifocal area projects (seven FSPs, three MSPs, and one enabling activity). The scope of these 11 projects varies: 2 are global, 1 regional, and the rest national. Two projects have been completed, eight are under implementation, and one is in the pipeline.

The two completed projects were relatively small, each entailing less than $1.0 million in GEF support. The Assessment of Soil Organic Carbon Stocks and Change at National Scales (GEF ID 1378) project, completed in 2006, was a targeted research-related project. The National Capacity Self-Assessment for Global Environment Management project (GEF ID 2216), completed in 2009, was an enabling activity. Both projects addressed concerns related to knowledge and capacity gaps. However, these are difficult to link directly with environmental stress reduction and status change.

During the course of the evaluation, three ongoing projects from the land degradation and multifocal areas were selected for field verification. All three were approved under the SLEM programmatic approach. The activities undertaken as part of this program have helped build the capacities of the local community in adapting to changing surroundings. The programmatic approach has provided continuity, and the experiences gained through the initial projects of the program are feeding into future activities.

5.3 Small Grants Programme

The GEF has funded 319 small grants in India through its SGP. These grants have focused on the generation of global environmental benefits through support for local livelihoods and the strengthening of small NGOs and CBOs. The strategy has been vital in integrating conservation into a sustainable livelihoods approach.

To date, the SGP has supported more than 250 NGOs and CBOs and has provided a total of $8.2 million in grants. The SGP has generated cofinancing of $12.1 million, a significant part of which has been generated through contributions from participating local communities. These grants have enhanced the capacities of local NGOs and community members. The contributions of the GEF SGP grants, and of the NGOs and CBOs that have executed these grants, have been widely recognized. Nonetheless, given the local scale of intervention and fairly simple M&E practices they employ, much of the evidence on results of SGP projects is anecdotal in nature. Box 5.1 presents some examples of SGP results in India.

BOX 5.1 Results of the Small Grants Programme in India

- The Society for Rural and Urban Joint Activities (Srujan) NGO has used an SGP grant to promote local actions to ensure conservation and livelihoods. The grant covered 1,500 households in 8 tribal villages. Activities initiated under the project were aimed at restoring forests—specifically, community protection of 1,000 hectares of forest, planting 60,000 saplings, and a seed-sowing program covering 5,000 hectares of open forest patches. The grant also built capacities among community members, especially women, about nontimber forest products and alternative livelihoods (poultry, goats etc.).
- An SGP grant was used to organize the Green Haat Marketplace. This national exhibition aimed to emphasize the intrinsic link between forest ecosystems and livelihoods for the poor, and to showcase the poor's ability to obtain better incomes through the use of nontimber forest products. Fifty-three NGOs attended the event; over half of these were SGP GEF partners. Community members whose livelihood capacities have been improved through activities funded by SGP grants displayed and sold their products over the course of the five-day event.

5.4 Factors Affecting Outcome Achievements

Analysis of the data gathered through desk review and fieldwork indicates that several factors have played an important role in aiding or limiting the level of outcome achievements and progress to impact in GEF projects. Some of the factors that aided progress include successful demonstration of the technical and economic viability of promoted practices, technologies, and approaches; and establishment of durable institutional mechanisms that foster linkages among key stakeholders.

- Successful demonstration of the technical and economic viability of technologies often creates its own dynamic and facilitates broader adoption. For example, even though some of the demonstrations undertaken as part of the Coal Bed Methane Capture and Commercial Utilization project failed, successful demonstration of vertical drilling has encouraged stakeholders to use this technique to harness coal bed methane. Two projects—Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector in India, and Energy Conservation in Small Sector Tea Processing Units in South India—that are nearing completion have effectively demonstrated the financial viability of energy-efficient technologies, which has reportedly facilitated replication of the promoted technologies by other private businesses.
- Establishment of institutional mechanisms that sustain and foster linkages among key project stakeholders ensures greater follow-up of project activities. The India Eco-Development project,

for example, established the Periyar Foundation at the Periyar Tiger Reserve. Establishment of this foundation facilitated development of strong institutional linkages among the key stakeholders of the Periyar subproject and ensured support for follow-up activities long after project completion. Similarly, the Gulf of Mannar Biosphere Reserve project established a trust that is ensuring continued support for conservation activities in the reserve and facilitating the project's further progress to impacts.

- Linking project activities with key stakeholders in both the public and private sectors, and providing support for their interactions, strengthens their working relationships. As seen in the Industrial Energy Efficiency project (GEF ID 404), these interactions tend to sustain and create support for follow-up activities.
- In projects where community engagement is important, activities that generate and sustain community interest are vital and often translate into greater community ownership and commitment. The SGP has been effective in engaging local communities through small grants. Its activities have helped develop strong linkages among stakeholders and promoted follow-up of activities undertaken through small grants.
- Involvement of civil society organizations based on their comparative advantage may facilitate progress toward impact. During the course of its implementation, the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project encountered delays and difficulties in achieving results. It then actively courted the involvement of a civil society organization to engage local communities in its activities. Subsequent to the organization's involvement, project activities are now on track.

One of the reasons for the overall effectiveness of the GEF projects in India is that, in general, these projects have addressed the given environmental problem at an appropriate scale. While it is true that the total GEF support to India has been too small to affect the overall environmental situation in the country, the GEF has selected only a few environmental issues and has devoted sufficient amounts to addressing them. Of the 22 completed projects, information for 20 projects indicates that they have targeted environmental problems at an appropriate scale. Field verification of the sampled projects has also validated the fact that the actual scale of GEF projects implemented addresses environmental problems at an appropriate scale. This has helped in achieving progress at a minimum level at which other stakeholders could play an important role. Projects such as the Coal Bed Methane Capture and Commercial Utilization project and the Low Carbon Campaign for the Commonwealth Games 2010 Delhi project are good examples of GEF targeting given environmental concerns at an appropriate scale. The former targeted the entire coal bed methane capture market in India; the latter aimed at the greening of an international sports event and attained national coverage by using the sporting event platform. Another project, the Gulf of Mannar Biosphere Reserve, is moving toward enhancing its impact by addressing regional (transboundary) dimensions through replication within the Sri Lankan boundaries of the Gulf of Mannar.

Several factors limited the progress of GEF projects in achieving their long-term impacts, including the following:

- Noncontinuation of institutional arrangements for stakeholder engagement during, and lack of adequate exit planning for, the postproject completion period led to lower levels of follow-up by key stakeholders. Capacities developed and institutional arrangements established by a project cannot be sustained if they are not mainstreamed into the regular functioning of the executing agency. In such instances, gains are lost once GEF support ends.
- In some instances, a lack of alignment between the objectives of technology demonstrations

and the business interests of early adopters of promoted technologies proved to be a barrier to broader adoption. GEF projects with the private sector often entail demonstration activities in a defined number of model units—with an arrangement to allow other interested stakeholders to learn from the experiences at the model units and access their data. However, even though the demonstrations appeared to be highly successful, early adopters were often found to be reluctant to share reliable data on the performance of the new technologies with other potential adopters, hindering knowledge sharing and broader adoption. Such patterns were noted in the Steel Rerolling Mill Sector project.

- Several projects in India have experienced delays in start-up and completion of project activities. It was reported that for projects such as Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity and the Steel Rerolling Mill Sector in India, these delays have led to lower outcome achievements.

6. Relevance of GEF Support to India

This chapter discusses the relevance of GEF support to India, including the relevance of GEF support to the country's sustainable development agenda and environmental priorities, to the country's development needs and challenges, to national action plans within GEF focal areas, and to the achievement of global environmental benefits. It also discusses the GEF focal point mechanism in the country.

In GEF terms, **relevance** is understood as "the extent to which the activity is suited to local and national environmental priorities and policies and to global environmental benefits to which the GEF is dedicated" (GEF EO 2010). The GEF portfolio in India spans more than 20 years and is spread across six GEF replenishment periods (including the pilot phase). Therefore, it is imperative that the relevance of GEF projects be assessed within the context of GEF policies and of the country during the period in which the projects were designed and implemented.

6.1 Relevance of GEF Support to the Country's Sustainable Development Agenda and Environmental Priorities

GEF support to activities within the biodiversity, climate change, land degradation, chemicals, and multifocal areas is in line with India's sustainable development agenda and environmental priorities of supporting energy efficiency, biodiversity conservation and protected area management, and land and water ecosystem management activities.

The **biodiversity** projects in India's GEF portfolio are relevant to a number of laws, policies, and strategies, including the Forest Act of 1927, the Wildlife Protection Act of 1972, the National Environment Policy of 2006, the National Biodiversity Strategy and Action Plan of 2005, and the National Conservation Strategy, as well as the country's five-year plans. These projects are also relevant to the mandates of the National Medicinal Plant Board, the National Afforestation and Eco-Development Board, etc.

Most of the **climate change** focal area projects in India's GEF portfolio are particularly relevant with respect to the National Action Plan on Climate Change and its various missions, such as the National Mission for Enhanced Energy Efficiency, the Jawaharlal Nehru National Solar Mission, etc. These projects are also relevant to many of the subsequent country five-year plans (notably the 10th, 11th, and 12th).

The Bureau for Energy Efficiency, within the Ministry of Power, has a mandate to promote energy efficiency in India. The GEF-supported climate change projects that address energy efficiency are congruent with the bureau's objectives. In addition, GEF projects are also relevant with regard to numerous legal acts and policies enacted by India, such as the Energy Conservation Act of 2001, the National Urban Transport Policy of 2006, and the Integrated Energy Policy of 2006. Table 6.1 provides a list of the policies, acts, and missions that GEF-supported climate change projects in India are relevant to with respect to the country's

TABLE 6.1 **Relevance of GEF Support to India's Sustainable Development Agenda and Environmental Priorities, by Focal Area**

Focal area	National sustainable development agenda and development needs and challenges
Biodiversity	National Conservation Strategy
	Policy Statement on Environment and Development (1992)
	Conservation of Medicinal Aromatic Plants (mandates of National Medicinal Plant Board, State Medicinal Plants Boards)
	The Panchayats (Extension to the Scheduled Areas) Act, 1996
	National Biodiversity Strategy and Action Plan (2005)
	Tenth Five-Year Plan (2002–2007), the Planning Commission
	Mandates of National Afforestation and Eco-Development Board
	National Policy and Macro-level Action Strategy on Biodiversity recognizes the national significance of medicinal plants, 1999
	Eleventh Five-Year Plan of India (2002–2007)
Climate change	Jawaharlal Nehru National Solar Mission
	India's Ninth Five-Year Plan (1997–2002)
	National Programme on Energy Recovery from Urban, Municipal and Industrial Wastes
	National Action Plan on Climate Change
	India's Tenth Five-Year Plan (2002–2007)
	National Mission for Enhanced Energy Efficiency/National Mission on Renewable Energy
	India's existing policy(ies) on energy eficiency at the national level
	National Electricity Policy and Mission 2012: Power for All
	Partnership for Excellence
	Energy Conservation Act 2001
	Jawaharlal Nehru National Urban Renewal Mission, December 2005
	Bureau of Energy Efficiency programs on SME Efficiency (Working Group on Power for 11th Five-Year Plan (2007–2012), Sub-Group 5)
	Integrated Energy Policy Report of the Planning Commission, 2006
	National Urban Transport Policy, April 2006
	Low Carbon Programmatic Framework for Energy Efficiency
	Eleventh Five-Year Plan (2007–2012) (Energy Section)
	Ministry of Power Energy Efficiency Agenda
	The Bureau of Energy Efficiency agenda
	Mandate of Energy Conservation Building Code
	Integrated Energy Policy
	National Medium-Term Priority Framework (2009–2012)
	India's Initial National Communicatio
International waters	Millennium Development Goals related to eradication of extreme poverty (#1a), eradication of extreme hunger (#1b), and ensuring environmental sustainability (#7)
Land degradation	Eleventh Five-Year Plan (2007–2012)
	India's National Policy on Agriculture
	XIth National Development Plan
Chemicals	National Health Policy
	National Rural Health Mission

sustainable development agenda and environmental priorities.

India has participated in two GEF-supported **international waters** projects: the Bay of Bengal Large Marine Ecosystem (GEF ID 1252) regional project and the Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships Ballast

Water (GloBallast Partnerships) (GEF ID 2261) global project. The Bay of Bengal project addresses concerns such as overexploitation of living marine resources (particularly illegal, unreported, and unregulated resources) and the destruction of critical habitat—both of which are priority areas for India. The objectives of the GloBallast Partnerships project are difficult to link to explicitly articulated national priorities. Nonetheless, it is implicitly aligned with the larger national priority of environmental safety.

GEF support to **land degradation** projects in India is in line with India's National Policy on Agriculture, the National Action Plan to Combat Desertification, and India's National Communication to the UNFCCC, among others.

GEF-supported **chemicals** projects in India are relevant to the country's National Health Policy and the National Rural Health Mission, as well as to the various pollution control laws enacted by the country. These laws include the Water (Prevention and Control of Pollution) Act of 1974, the Air (Prevention and Control of Pollution) Act of 1981, Bio-medical Waste (Management and Handling) (Second Amendment) Rules of 2000, and the Infection Management and Environment Plan for Reproductive and Child Health Programme Phase II.

6.2 Relevance of GEF Support to the Country's Development Needs and Challenges

Although the GEF tries to take into account relevant social and development issues during the project appraisal process, it does not have a mandate to focus on these. The link between the GEF and its focus on global environmental benefits and India's socioeconomic development needs is difficult to establish. The notable exception to this premise is the SGP, because social development links are addressed in detail in most of the program's grants. In general, the evaluation found that the GEF contributions supported activities that addressed India's sustainable development needs and challenges, including gender development. Most of the projects in the GEF India portfolio have a capacity-building component. This component is generally relevant to meeting both the objectives of the support and the development needs of the country.

The quality of projects in India's GEF portfolio has improved over the GEF replenishment periods. Over the years, lessons drawn from project execution and implementation, cross-Agency learning, the national portfolio formulation exercise, etc., have enabled development of a more systematic and structured approach to project design. Recent projects tend to be more explicit in demonstrating their congruence with national development plans and priorities, making it easier to relate the relevance of GEF support to the country.

6.3 Relevance of GEF Support to National Action Plans within GEF Focal Areas

A timeline of GEF projects vis-à-vis the development of India's national action plans across the various GEF focal areas is presented in figure 3.1. A number of these action plans were developed in conjunction with GEF support to India under the framework of various international conventions. These correlations provide some corroborative evidence of links of GEF support to these developments. However, GEF support needs to be seen as one of several factors that may have led to these developments.

India's national communications to the UNFCCC are an example of GEF support being linked to national plans to address environmental concerns. As a result of the GEF-supported preparation of India's Initial and Second National Communications, many policies and action plans in climate change are being developed in the country.

Similar experiences have been reported for other focal areas. In the case of biodiversity, many GEF-supported projects have focused on biodi-

versity conservation–related concerns that, while important, had not received adequate attention from national stakeholders. For example, the two sequential Below Ground Biodiversity projects brought below-ground biodiversity-related concerns to the attention of both academics and policy makers. Table 6.2 provides a detailed list of the national action plans that demonstrate relevance to GEF focal area support.

The 2005 Paris Declaration on Aid Effectiveness reflects the shift in focus of international aid architecture from donor-driven decision making to empowering recipient governments and other stakeholders (civil society, the private sector, etc.) to take ownership of development policies and aid programs and projects over the last decade. This shift was reaffirmed by the Accra and Busan Forums in 2008 and 2011, respectively. Country ownership is often highlighted as a critical factor needed to underpin sustainable and effective development. It features prominently as a development principle in most donor organization–country recipient relationships. GEF support in India compares well to the international benchmarks promoted by the Paris Declaration.

Given its unique mandate as a financial instrument for multilateral environmental agreements, the GEF has a strong legal basis to support countries in bringing their national priorities in line with global obligations. Thus, from a donor

TABLE 6.2 **Relevance of GEF Support to National Action Plans, by Focal Area**

Focal area	National environmental framework, agenda, priorities
Biodiversity	India's Environmental Action Plan, 1993
	National Wildlife Action Plan, 1983
	Contribution to national BSAP and other national and state action plans
	Commitment of submission of report to CBD
	Legal provisions (Forest Act 1927, Wildlife Protection Act 1972, Forest Conservation Act 1980, Environment Protection Act 1986,Tamil Nadu Forest Act 1887, Tamil Nadu Marine Fishing Regulation Act 1983, Water Prevention and Control of Pollution Act 1974, Maharashtra Marine Fisheries Act 1981)
	Policies (Environment Action Programme 1993, National Conservation Strategy and Policy Statement on Environment and Development 1992, Air Prevention and Control of Pollution Act 1974)
	National Biotechnology Strategy 2006
	National Environment Policy
	Guidelines (rDNA Safety Guidelines, 1990; rDNA Safety Guidelines and Regulations, 1990; Revised Guidelines for Safety in Biotechnology, 1994; Revised Guidelines for Research in Transgenic Plants, 1998; Guidelines for Generating Preclinical and Clinical Data for rDNA Vaccines, Diagnostics and Other Biologicals, 1999)
	National Action Plan on Climate Change
	Coastal Regulation Zone Notification (1986)
	MoEF's National Environmental Action Program (1993)
	India's National Conservation Strategy
	CBD and its guidance from the Conference of the Parties
	Joint Forest Management
	Sustainable Forest Management
	National Biodiversity Strategy and Action Plan
	International Treaty on Plant Genetic Resources for Food and Agriculture
	National Environment Policy (2006)
	National Biodiversity Action Plan, 2008
	National Wildlife Action Plan (2002–2016)
	National Biotechnology Development Strategy (2007); National Environment Policy (2006); National Seeds Policy (2005); National Farmer's Policy (2007); Food Safety and Standards Act (2006)
	Biological Diversity Act, 2002

(continued)

TABLE 6.2 **Relevance of GEF Support to National Action Plans, by Focal Area** *(continued)*

Focal area	National environmental framework, agenda, priorities
Climate change	National Environmental Action Plan
	UNFCCC
	Climate Change Agenda for Delhi 2009–2012
	National Biodiversity Action Plan
	Energy Conservation Act, 2001
	Mandate of Bureau of Energy Efficiency
	India's National Communication
	National Action Plan on Climate Change, National Mission on Energy Efficiency, National Mission on Renewable Energy
	Eleventh Five Year Plan (2007–2012)
	Air emission standards for brick kilns, 1996
	UNFCCC Kyoto Protocol
	Bureau of Energy Efficiency programs on SME Efficiency (Working Group on Power for 11th Five-Year Plan (2007–2012), Sub-Group 5)
	Integrated Energy Policy Report of the Planning Commission, 2006
	Montreal Protocol
	Indian Green Building Council in 2001 – Leadership in Energy and Environmental Design
	National Energy Policy Document
	GoI National Coastal Protection Project
	Draft National Biodiversity Action Plan (August 2007)
Int'l waters	CBD
Land degradation	National Environmental Program
	India's Initial National Communication to UNFCCC
	National Action Plan to Combat Desertification (UNCCD-NAP, 2001)
	National Environment Policy (2006)
	India SLEM Program
	India's National Environmental Policy of 2006
	India's National Policy and Macro-level Action Strategy on Biodiversity
	National Forest Policy
	National Wildlife Action Plan
Chemicals	Environment Protection Act, 1986 i. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and amendments made thereunder ii. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 and amendments made thereunder iii. Hazardous Wastes (Management and Handling) Rules, 1989 and amendments made thereunder iv. Public Liability Insurance Act, 1991 and Rules v. National Environment Tribunal Act, 1995 vi. The Environment (Protection) Rules, 1986
	The Insecticides Act, 1968
	Water (Prevention and Control of Pollution) Act 1974
	The Air (Prevention and Control of Pollution) Act, 1981
	Stockholm Convention on POPs
	Basel Convention
	Biomedical Waste (Management and Handling) (Second Amendment) Rules, 2000
	Infection Management and Environment Plan for Reproductive and Child Health Program, Phase II

perspective, overall GEF support to India has been provided in a manner that promotes country ownership.

Over the course of the development of the GEF portfolio in India, country ownership has increased. Prior to GEF-4, the national government was relatively passive regarding its involvement in GEF activities. However, since GEF-4, the national government's role in planning and shaping the portfolio has grown. Following adoption of the RAF in GEF-4, the government undertook a consultation exercise for planning the country's GEF portfolio. This self-initiated effort was further strengthened during the GEF-5 cycle.

Increased involvement is not restricted to the national government. State governments, civil society organizations, and the private sector are also becoming more involved in shaping the GEF portfolio in India. GEF activities in the country have generated substantial cofinancing commitments from various government agencies, indicating a high level of country involvement and ownership. This is particularly true for large climate change projects as well as for the SGP. Over and above the GEF funding for the SGP in India, the Indian government has provided substantial additional resources, indicating solid support of the program.

Generally speaking, involvement of civil society institutions in the development and execution of GEF projects in India is limited. There have been very few instances where civil society organizations have executed a GEF project. This lack of participation may be due to issues related to scale and comparative advantage. Several GEF projects do involve civil society institutions as subcontractors to executing agencies. Further, SGP grants are executed exclusively by NGOs and CBOs.

6.4 Relevance of GEF Support to the Achievement of Global Environmental Benefits

An assessment of the GEF-supported projects in India reveals that a majority are relevant to the international conventions and regional treaties within the GEF focal areas. Project design, as well as subsequent approval, takes into account a project's relevance to the GEF mandate and strategies, operational principles and objectives of interest, and a focus on global environmental issues. Discussion of the various international conventions and treaties relevant to GEF projects is presented in chapter 3. Table 6.3 lists the GEF focal area strategies and operational programs relevant to the GEF projects in India.

GEF funding in India has contributed to increased public awareness regarding environmental concerns in biodiversity, climate change, international waters, land degradation, and chemicals. It has helped address environmental issues at various levels, from the central government to local communities, through national institutional and capacity-building support. Involvement of youth and schoolchildren—especially through the SGP—has helped fulfill the communication and outreach objectives of GEF support.

Increased environmental awareness at various levels has contributed to enhanced stakeholder involvement in GEF global environmental issues. Although these efforts have supported India's compliance and linkage with various international conventions, laying the foundation for the country's contribution to global environmental benefits, implementation and sustainability remain challenges.

6.5 The GEF Focal Point Mechanism in India

In line with the GEF guidelines for the focal point mechanism, India has two focal points: an operational focal point and a political focal point. In India, the operational focal point is hosted by the MoEF, and the political focal point by the Department of Economic Affairs within the Ministry of Finance. The operational focal point is responsible for in-country program coordination of GEF projects and related activities; the political focal

TABLE 6.3 **Relevance and Linkages with GEF Agencies' National Strategies/Frameworks**

Focal area	National strategies/frameworks
Biodiversity	World Bank's Reaching the Rural Poor Strategy of 2003
	UNDP Country Programme (2003–07)
	UNDAF theme of strengthening decentralization and its subtheme of capacity development for promoting effective community management
	Globally Significant Medicinal Plants (part of UNDP mandates)
	GEF-funded Critical Ecosystem Partnership Fund
	UNEP environment mandate
	UNDP India's Country Cooperation Framework for India: Environment Support Programme
Climate change	World Bank Country Assistance Strategy 2004
	UNDP Agenda 21
	World Bank 2nd Line of Credit
	Millennium Development Goal 7: Ensuring Environmental Sustainability
	UNDP Multi-Year Funding Framework (MYFF) for 2004–07, goal 3: energy and environment for sustainable development
	UNDP MYFF 2004–07 service line 3.1: Frameworks and strategies for sustainable development
	UNDP subgoals in India: • Environment and energy for livelihoods • Regional and global instruments that promote environmentally sustainable development of the Strategic Results Framework of UNDP
	UNDP's Country Cooperation Framework (1997–2002)
	UNDP India energy and environment mandate, climate change and GHG reduction mandate, energy efficiency and energy conservation agenda
	UNDP India's Country Cooperation framework
	UNDP MYFF 2004–07
	UNDP MYFF 2004–07 service line 3.3: Access to Sustainable Energy Services
	Technology, Industry and Economics sub-programmes on energy and economics of UNEP
	World Bank's Country Strategy for India (FY09–12)
	World Bank's Transport Business Strategy for 2008–12
	UNDP Country Programme Action Plan 2008–12
Land degradation	World Bank's Country Assistance Strategy
	UNDP Country Programme
Chemicals	UNIDO's commitment to assist its developing country member states in accordance with Article 12 of the Stockholm Convention
	UNEP thematic priority on environmental management – UNIDO; sub-programme 5 (Hazardous Substances and Hazardous Waste)

point is responsible for GEF governance and policy-related issues. Within the country, the operational focal point is the main point of contact for stakeholders at the national level, the GEF Agencies, the GEF Secretariat, and the GEF Evaluation Office.

In India, an institutional mechanism for coordination of GEF-supported activities is in place, consisting of the GEF Empowered Committee and the GEF Cell. With a mandate to meet quarterly, the committee functions as an empowered body to determine national priorities; streamline eligibility checks, approvals, and endorsements of GEF proposals; monitor project implementation; and formulate the country's position for meetings of the

GEF Assembly and the GEF Council. Chaired by the MoEF Secretary, the committee is comprised of members from the thematic divisions of the MoEF, the Department of Economic Affairs, the Ministry of External Affairs, the Planning Commission, and individual experts. Special invitees include representatives from concerned central/state governments, GEF Agencies, and project proponents on an as-needed basis. The GEF Cell assists the operational focal point in coordinating GEF activities in India.

The endorsement procedure for a GEF project in India is initiated with the development of a concept note, which may originate directly from a project proponent or in consultation with the thematic divisions of MoEF/line ministries or GEF Agencies. Following preliminary screening at the GEF Cell, if deemed eligible, a concept note may be revised and subsequently developed into a project proposal. The GEF Cell next seeks comments from the thematic divisions/state governments for ownership and cofinancing commitments. The proposal undergoes several revisions at all stages of its development. After consideration, discussion, and acceptance of the project proposal by the GEF Empowered Committee, it is endorsed to the GEF Agencies by the GEF operational focal point.

The national consultation process in India focuses on the identification of priorities and ensuring country drivenness and ownership in GEF-supported activities. The consultation process is conducted by the GEF Empowered Committee, chaired by the MoEF Secretary. It includes identification of national priorities with incremental costs to be funded by the GEF, possible cofinancing at the national level, a national executing agency, the lead GEF Agency on the basis of Agency comparative advantage, and focal points/contact persons.

The PIF preparation and endorsement process in India includes development of a baseline through situational gap analysis, identification of project outputs and outcomes and of tentative GEF funding and cofinancing for incremental costs, identification of an institutional mechanism for effective implementation and monitoring, cofinancing commitments from central/state governments (and other donors/partners), review and approval of the PIF by the relevant GEF Agency, and review and endorsement of the PIF by the GEF operational focal point.

The operational focal point is expected to ensure that the grant accessed by the country is utilized in accordance with national and GEF priorities. Building upon the ongoing monitoring efforts of the GEF Agencies, the GEF Cell focuses on monitoring project performance from GEF and national perspectives, at different stages of the project cycle; developing a knowledge management strategy; linking performance of individual GEF projects with the overall performance of the portfolio within its results-based management framework; and making GEF investments in India sustainable and strategic in meeting the overall goal of national development.

The operational focal point's office does not perform M&E activities at the project level, but does perform portfolio-level monitoring. It conducts three portfolio monitoring meetings annually as well as an annual site visit. The GEF Cell regularly attends project steering committee meetings and maintains linkages with project staff. The GEF Cell tracks projects under implementation through quarterly reports and PIRs, although the extent to which these reporting devices is candid remains an area of concern.

7. Efficiency of GEF-Supported Activities in India

This chapter discusses the efficiency of GEF-supported activities in India. The GEF defines **efficiency** as "the extent to which results have been delivered with the least costly resources possible" (GEF EO 2010).

7.1 Time, Effort, and Financial Resources for Project Processing

This section presents a review of the efficiency of GEF-supported activities in India, as measured by the time and financial resources required to process a project through the GEF activity cycle. The analysis refers to the project preparation and implementation stages in the GEF activity cycle approved by the GEF Council in June 2007. The stages of the cycle are presented in figure 7.1. The first half of this analysis focuses on the pre-implementation phase, covering project preparation costs and the time taken to move from one stage to the next within the GEF activity cycle. The second half of the analysis focuses on the implementation phase, covering the time taken for project implementation and associated delays. Estimates between activity cycle stages are limited by the lack of full and reliable information for several projects.

PREPARATION COSTS

The GEF places considerable emphasis on the quality of project design, as it links it with quality of implementation and M&E, and effectiveness in achieving results. Much of the effort required in the preparation and development of a project proposal is borne by the project proponents. Depending on the nature of the project, the project context, and the availability of relevant data for preparing a project baseline, project preparation costs may vary. In some instances, the project proponents may request additional support for project preparation.

During the pilot phase, the GEF did not provide support for project preparation. Subsequently, as the need for this became apparent, it began providing such support through project development facility (PDF) grants. After 2007, such support was provided as project preparation grants (PPGs), although their intent is the same. This section discusses the support provided by the GEF for the preparation of projects in India.

The cost of preparing a GEF project has been derived from multiple sources, including the PMIS data set, project documents, and validation by GEF Agencies. It includes the cost of a PDF or PPG (for projects approved after 2007). Annex G lists all the projects in the GEF India portfolio that have used PDFs/PPGs, along with other details on project preparation support provided by the GEF.

Of the 55 national projects in the GEF's India portfolio, 12 are completed, 20 are ongoing, and 23 are in the pipeline. Of these, 23 projects have received a PDF or PPG from the GEF for their development: 21 FSPs (49 percent of the FSPs in the national portfolio) and 2 MSPs (33 percent of the MSPs in the national portfolio). By focal area, projects in the biodiversity (6 of 12 projects) and

chemicals (4 of 4 projects) areas were more likely to receive project preparation support than were projects in the climate change (12 of 31 projects) or multifocal areas (1 of 7 projects).

By GEF Agency, 83 percent of the projects implemented through UNIDO (5 of 6 projects), 50 percent of those implemented through either UNDP (14 of 28) or UNEP (1 of 2), and 6 percent of those implemented through the World Bank (1 of 16) have received project preparation support. A major reason for this is that several of the World Bank projects had been implemented during the earlier phases when the GEF did not provide such support. Additionally, many of the GEF grants implemented through the World Bank were for projects embedded in larger World Bank initiatives, which reduced the incremental effort required in the preparation of the GEF project.

In general, projects that involve greater amount of GEF funding are more likely to receive GEF support for project preparation than are those involving smaller amounts.

Total GEF funding for preparation of projects in India amounts to $4.84 million, with PDF/PPG grants averaging $210,373: $228,028 for FSPs and $25,000 for MSPs. The total amount provided in PDF/PPG support represents 3.0 percent of the total grants made for the 23 projects to which the GEF has provided PDF/PPG support. Considering the entire portfolio of 55 national projects, PDF/PPG grants for GEF-supported projects account for 1.2 percent of total GEF funding in India.

Even though it received a relatively large PDF grant of $330,000 for its Biodiversity Conservation and Rural Livelihoods Improvement project (GEF ID 2444), the World Bank has the smallest percentage of projects receiving PDF/PPG grants. Consequently, it receives the smallest amount relative to the size of the whole portfolio (0.3 percent). UNDP and UNIDO perform similarly, with grants close to 3.0 percent of project size and total contribution of over 2.0 percent of their portfolio; amounts for UNEP, which has only two projects, are lower.

During the consultations and interviews conducted for this evaluation, many respondents reported that the total cost incurred in the formulation of a quality project proposal (in terms of hiring the best quality consultants and experts, etc.) far exceeded the amount provided by the GEF PDF/PPG. In India, many GEF projects have generated PDF/PPG cofinancing from the government as well as from the GEF Agencies. These respondents maintained, however, that even the combined GEF PDF/PPG and cofinancing were insufficient. It is not clear whether this reported gap in support for project preparation is linked to the quality of the project proposal or whether it forces agencies to focus available resources on more important elements of project preparation.

ACTIVITY CYCLE

The time taken to achieve major GEF activity cycle milestones—especially milestones related to project preparation—has been an ongoing area of concern for the GEF partnership at the global level. The Joint Evaluation of the GEF Activity Cycle and Modalities (GEF EO 2007) presented an in-depth analysis of time lags at various stages of the cycle. The evaluation concluded that the lag time for proposals awaiting approval had become unacceptably long and recommended a "radical redrawing of the cycle." Taking note of the evaluation findings and recommendations, a new project cycle was approved by the GEF Council in June 2007. Figure 7.1 presents the project cycle that was in effect before 2007; figures 7.2 and 7.3 illustrate the current cycles used for FSPs and MSPs, respectively.

Different projects take different lengths of time to move from one stage to another in the GEF activity cycle; tables I.1, I.2, and I.3 in annex I present the average length of time required for implementation of FSPs, MSPs, and enabling activities, respectively, in the India portfolio. The analysis presented here pertains only to the 49 national projects in India's GEF portfolio that had been approved by April 2012. Of these, 14 projects had

FIGURE 7.1 **GEF Activity Cycle Prior to 2007 Revision**

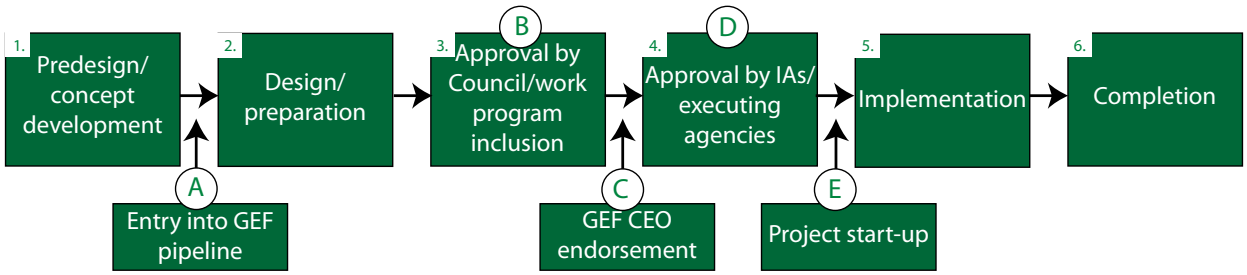


FIGURE 7.2 **GEF Current Full-Size Project Cycle**

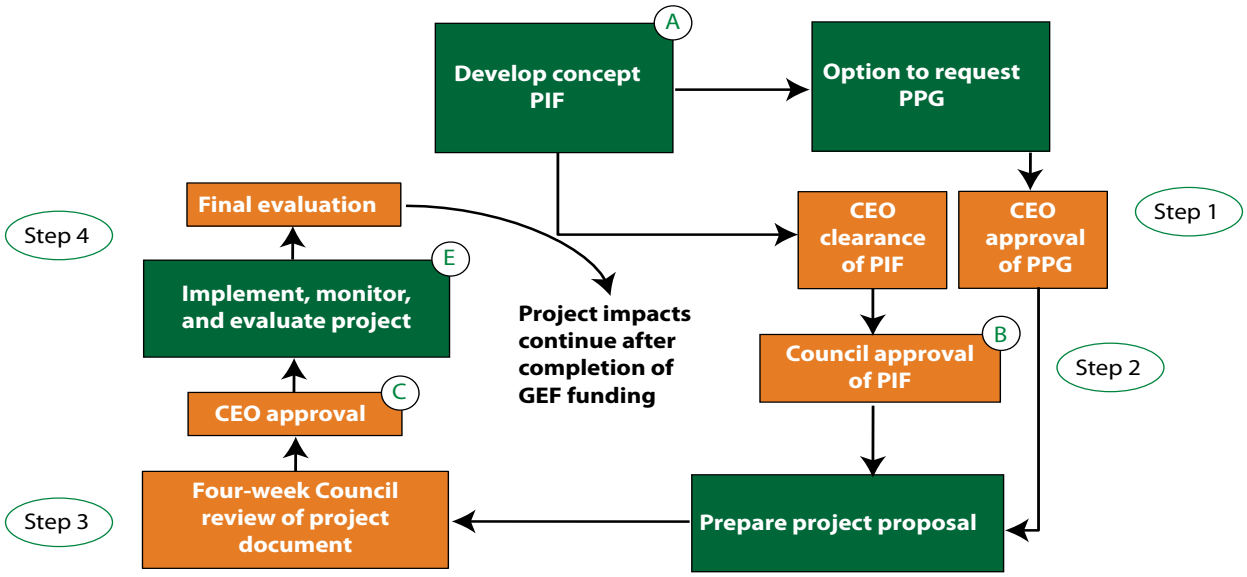
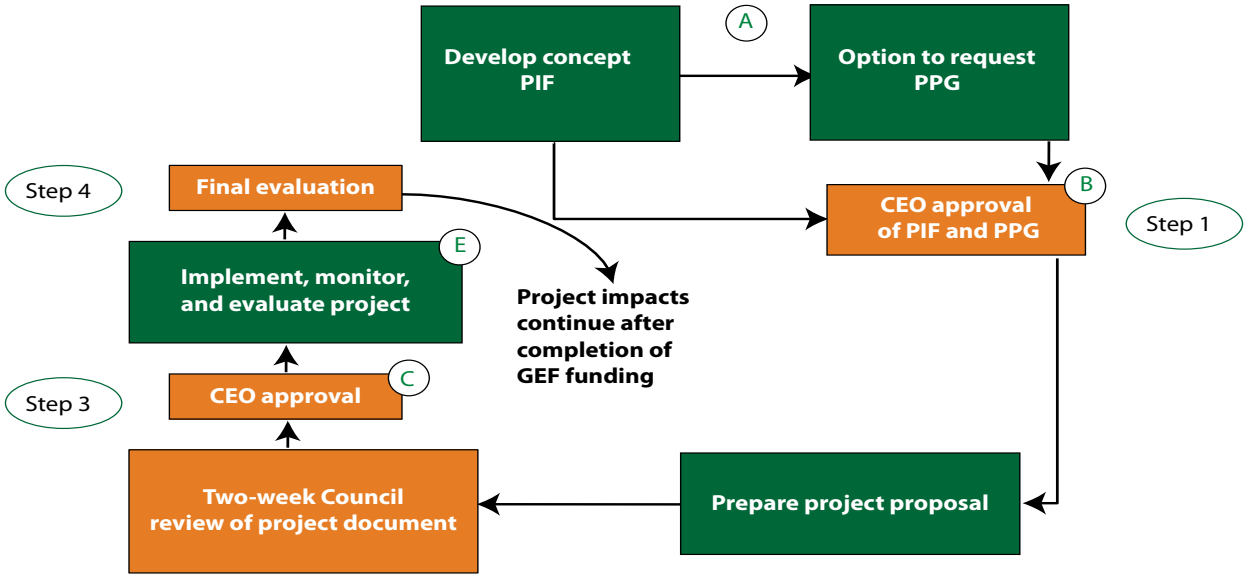


FIGURE 7.3 **GEF Current Medium-Size Project Cycle**



been completed, 22 were ongoing, and 13 were in the pipeline. Although regional and global projects go through the same steps in the GEF activity cycle, their preparation is more complex—and presumably takes longer—as they are subject to extensive international consultations. Further, the cycle for regional and global projects differs, as the detailed design at the country level is undertaken after appraisal, and therefore requires additional planning after approval. The regional and global projects that pertain to the India portfolio have not been covered in the analysis of the activity cycle.

Figure 7.4 and tables 7.1 and 7.2 show the average time needed for Indian FSPs, MSPs, and enabling activities, respectively, to move from entry into the pipeline to project start-up. For the FSPs, 13 of the 22 projects entering the pipeline have taken more than two years to obtain CEO approval. Of the 14 projects that have completed the activity cycle, 10 took more than two years to do so. The FSP that took the longest to move through the cycle was the Removal of Barriers to

TABLE 7.1 **Average Time Needed to Develop and Approve Medium-Size Projects in the India GEF Portfolio**

	Number of projects				
Months	A→B	B→C	C→E	A→C	A→E
< 6	1	3	2	1	1
7–12	—	—	2	—	—
13–18	1	—	1	1	—
19–24	—	—	—	1	—
> 24	1	—	—	3	2

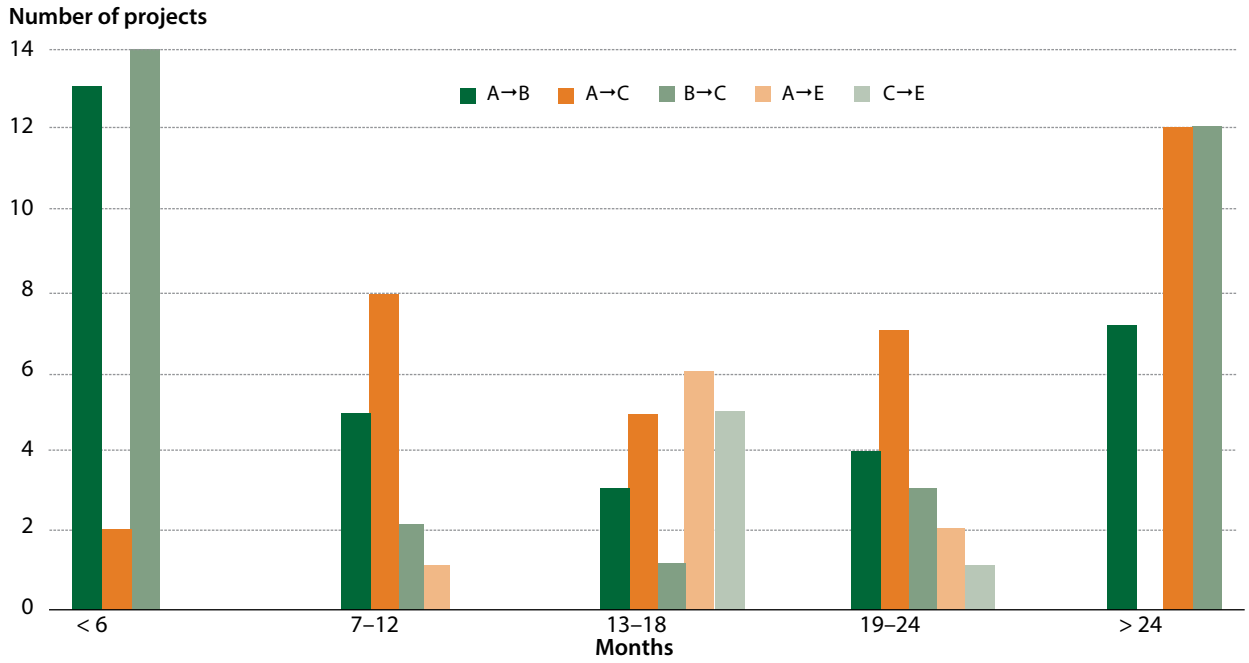
NOTE: — = not available. See figure 7.1 for stages of the GEF activity cycle A–E.

TABLE 7.2 **Average Time Needed to Develop and Approve Enabling Activities in the India GEF Portfolio**

	Number of projects	
Months	B→C	A→C
7–12	2	1
> 24	1	—

NOTE: — = not available. See figure 7.1 for stages of the GEF activity cycle A–E.

FIGURE 7.4 **Average Time Needed to Develop and Approve Full-Size Projects in the India GEF Portfolio**



NOTE: SEE figure 7.1 for stages of the GEF activity cycle A–E.

Biomass Power Generation, Part I (GEF ID 1199) project; it took almost five years from entry into the GEF pipeline to start-up.

Among the MSPs in the national portfolio, four of the six projects have taken more than two years to move from pipeline entry to CEO approval. Both of the MSPs for which data are available and that have completed the GEF activity cycle took more than two years to move to project start-up. Not surprisingly, given its time-restricted implementation plan, the Low Carbon Campaign for the Commonwealth Games 2010 Delhi moved the most swiftly of all MSPs through the cycle, with only six months (182 days) elapsed between its entry into the GEF pipeline and when it started implementation.

Both of the country's enabling activities have taken between 7 and 12 months to move from work program inclusion to CEO endorsement.

In interviews, many stakeholders expressed their concern that it takes a long time to prepare GEF projects. They noted issues such as long processing periods, which lead to correspondingly higher transaction costs in terms of financial and human resource inputs. A lack of clarity and information relating to delays further aggravates the problem.

Although the number of observations is not sufficient to draw robust conclusions, it appears that the time lags in preparing GEF projects in India are less than those seen in other countries.

From GEF-4 onwards, the manner in which project proposals GEF-wide are developed and prioritized has changed due to the GEF's adoption of the RAF, the enhanced role of the GEF operational focal point in the national-level programming of GEF resources, and the streamlining of the GEF project cycle. Although the number of observations is too small to indicate a trend in terms of reduction in project preparation time, some stakeholders believe that, overall, the time required for project preparation has been reduced.

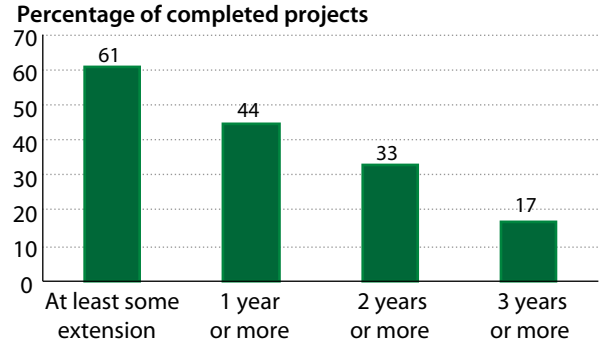
IMPLEMENTATION TIME AND EXTENSION OF COMPLETION DATES

Out of the 22 completed projects, data on project extensions were available for 18. Eleven FSPs and MSPs required extensions varying from a few days to three years or more (figure 7.5). Of the seven completed FSPs for which data on extension of completion date are available, five required extensions; four of these required an extension of two years or more.

The project requiring the longest extension was the UNDP-implemented Development of High-Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions; it was completed seven years later than the proposed completion date.

Project delays were analyzed for 21 projects, all of which were field verified; 11 of these were completed projects, and 10 were under implementation. Only four of the completed projects had been completed within the original time frame; the other seven had experienced some delay. Among the ongoing projects, seven experienced delays or were expected to be delayed in their completion, one was suspended midway, and two others were at an initial phase of implementation. Reasons for delay vary, and include slow start-up, delayed funds flow, overly optimistic estimation of the time required

FIGURE 7.5 **Duration of Extensions Required for Project Completion**



NOTE: $n = 18$.

for a particular project activity, inadequate support from stakeholders or suppliers, and issues related to inter- or intra-Agency coordination. Delay in processing within the GEF pipeline is another reason; in extreme cases, such delay can render a project irrelevant in the context of a country's changing priorities. The following examples illustrate some of the causes and consequences of delay:

- The Gulf of Mannar Biosphere Reserve project, during its initial stages, was not executed as per project design. Consequently, it was not able to meet its defined timelines. Although the problems created by the lack of congruence between project design and actual execution were subsequently addressed by the executing agency, it took time to bring project activities back on track. The project thus experienced a two-year start-up delay. The executing agency had to seek an extension to complete project activities.
- The Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project was in the GEF pipeline for eight years. During this time, the scale of the project was affected by foreign currency fluctuations and inflationary pressures, leading to a reduction in the number of planned project sites. Originally, nine states were considered for project interventions during the design phase; the project now covers three states.

TRENDS IN DROPPED OR CANCELED PROJECTS

The total number of India projects or proposals listed in the PMIS is 130. Of these, 71 have been allocated GEF resources (at least PIF approved), 51 have been dropped or canceled, and the remaining 8 are in the pre–PIF approval stage.

The available data show that, from GEF-2 onwards, there has been a decline in the number of project proposals that were dropped or canceled.[1] Much of this improvement could be linked to the national portfolio planning effort led by India since GEF-4, complemented by the GEF's adoption of the RAF, whose indicative allocations to countries enable them to better plan their portfolios. Table 7.3 presents data on implemented versus approved projects by GEF replenishment period. (Data are not available for either the pilot phase or GEF-1, because at that point the GEF did not track proposals that were eventually dropped.) The percentage of dropped and canceled projects may increase for the GEF-4 and GEF-5 periods as the projects progress further in the cycle, and figures for GEF-5 may change as it is still under implementation. Nonetheless, it is highly unlikely that the rate of dropped/canceled projects will be as high as in earlier periods.

TABLE 7.3 **Distribution of Approved Projects by Replenishment Period**

	Number of approved projects			Dropped/ canceled
Period	Total	Implemented	Dropped/ canceled	projects as % of total
GEF-2	22	7	15	68
GEF-3	35	14	35	60
GEF-4	37	28	9	24
GEF-5	16	11	5	31

7.2 Cofinancing

The GEF considers cofinancing to be an indicator of a project's sustainability, country ownership, and the mainstreaming of GEF activities; it also sees cofinancing as a way to mobilize additional resources for the global environment. The GEF Council working paper on cofinancing defines it as

[1] PMIS information for the pilot phase and GEF-1 is not complete, because these periods precede operationalization of the PMIS, and in several cases, information on project proposals that were dropped or canceled was not uploaded to the database. As a result, analysis of dropout and cancellation rates is accurate only from GEF-2 onwards.

> ...project resources that are committed by the GEF agency itself or by other non-GEF sources and which are essential for meeting the GEF project objectives. Typically, such resources are committed as part of the initial financing package, but in some cases part of the cofinancing may actually be mobilized subsequently (GEF 2002).

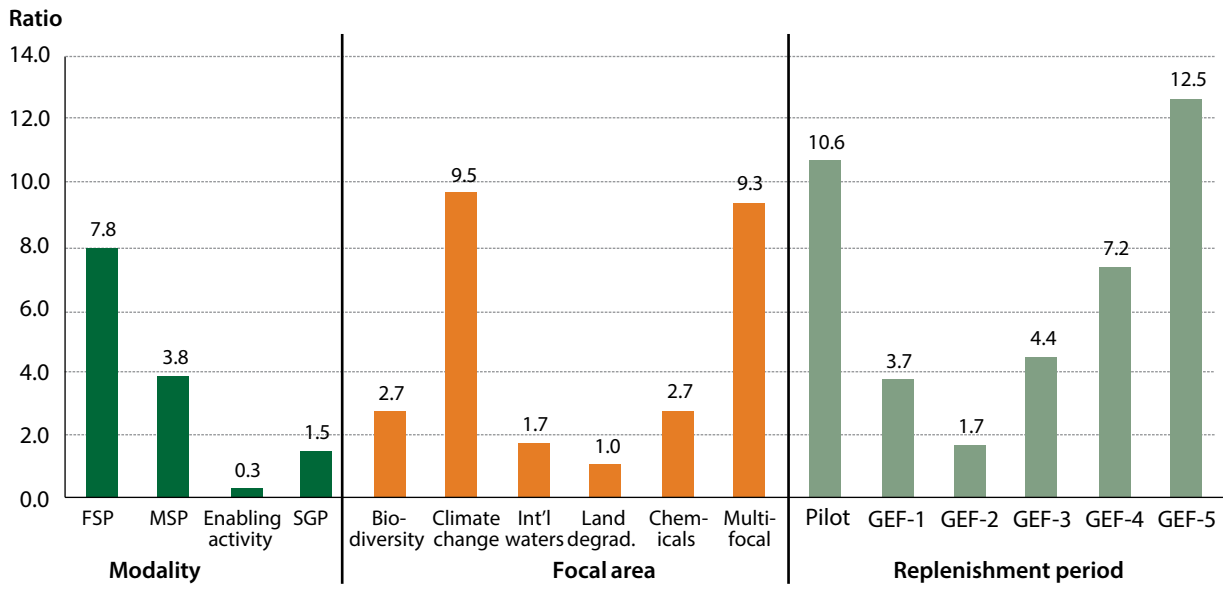
Despite the existence of this agreed-upon definition for cofinancing, there is considerable variation across projects in terms of what is accounted for and reported as cofinancing. The CPE team did not verify the congruence of reported cofinancing with the official definition of the term. Rather, it has used the figures reported by the Agencies to discern trends and patterns.

The GEF portfolio in India has generated high levels of cofinancing. For the $429.0 million in GEF support for 71 projects in the India portfolio (excluding the SGP), cofinancing amounts to $3.3092 billion, for a ratio of $7.70 in cofinancing per dollar of GEF grant. This ratio exceeds the global GEF portfolio average ratio of 5.3. A major reason for this high ratio seems to be a higher proportion of GEF funding in India for climate change activities, which tend to attract relatively greater amounts of cofinancing.

An analysis of the cofinancing data shows that FSPs (by modality) and climate change and multi-focal area projects (by focal area) tend to have high cofinancing ratios (figure 7.6). Across the GEF replenishment periods, the highest cofinancing ratio was achieved during GEF-5. The cofinancing ratio for GEF projects in India during the pilot phase (10.6) is considerably higher than the average ratio for the GEF global portfolio (3.9) during the corresponding period. The patterns seen in the GEF India portfolio in terms of high cofinancing ratios for FSPs and climate change projects are consistent with patterns in the global portfolio.

Although a majority of cofinancing is provided in cash (primarily through loans from multilateral development banks), these contributions are concentrated in a few projects implemented by the development banks. For most projects, contributions by partner institutions are in the form of in-kind cofinancing (as personnel costs for technical support and infrastructure rental costs). Project management has little direct oversight of the activities supported through such cofinancing. While in-kind contributions are important in facil-

FIGURE 7.6 **Cofinancing Ratios for India by Modality, Focal Area, and GEF Replenishment Period**



itating the delivery of project outputs, they obviously may not be used for activities that require in-cash expenditure. Some respondents noted that cash cofinancing may facilitate greater progress in project results. For example, they cited the role of cash contributions in enhancing the results of projects such as Energy Conservation in Small Sector Tea Processing Units in South India and the Low Carbon Campaign for Commonwealth Games 2010 Delhi.

In general, timely availability of cofinancing has been noted in India's GEF portfolio. For all but one project, timely availability of cofinancing was reported. The sole exception was the UNDP-implemented SLEM Thar desert ecosystem project. Project management's inability to leverage cofinancing from the state government was one of the reasons the project stalled midway, along with fiduciary irregularities found by the GEF Agency.

7.3 Project Administrative Budget

The majority of executing agencies in India report that the administrative budget of GEF projects is sufficient to ensure quality in project execution. Discussions with key stakeholders at the eight GEF projects visited for field verification indicate that, barring a few instances, the administrative budget is sufficient to provide for the administrative costs incurred in project execution. This is especially true for projects where the GEF administrative budget is supplemented with cofinancing from the corresponding executing agencies (government ministries or departments).

In one instance, an inadequate administrative budget was reported. The budget's inadequacy reportedly limited the number of supervisory visits the project management staff could undertake and reduced the scope of M&E activities.

In 2009, an internal audit was undertaken to assess the quality of the SGP country programs in terms of their business processes. The audit, which was undertaken by Deloitte and Touche LLP, rated the India SGP country program as the 5th best of 130 country programs. Table 7.4 lists some of the practices of the India SGP country program that were considered exemplary; one of these best practices is that a low percentage of the GEF grant is spent in meeting the program's administrative costs.

7.4 Coordination among Stakeholders

In India, there is good coordination among the various partners involved in the implementation of GEF-supported projects. This coordination is facilitated through regular workshops, stakeholder consultations, monitoring meetings, and other similar platforms. Through such mechanisms, ideas, progress, and challenges are regularly shared among the project partners.

The overall coordination of project implementation and the monitoring of GEF-supported projects is handled by the project steering committee and the project management unit. The committee includes representatives of the GEF Agency, the executing agency, other concerned government department(s), academic or research institutions, and NGOs, among others. Its quarterly or semiannual meetings ensure that the entire team is apprised of the project's implementation progress, achievements, and difficulties faced at regular intervals. It also enables decision making with regard to the project's future course of action as well as allowing for changes to be made to the project design or implementation plan, if required. For example, the GEF-supported Initial National Communication (GEF ID 11) and Second National Communication (GEF ID 2608) projects in India involved a multitude of partner organizations, including several central government ministries, various government academic and research institutions, universities, research laboratories, other government agencies, private entities, and NGOs. In spite of the challenges, an effective coordination mechanism was established to enable interactions between and among the various partners and to

TABLE 7.4 **Best Practices of the India Small Grants Programme**

Area	Impact element	Condition/comments on practice
Grantee qualification criteria	Governance	The country program has 10 criteria for NGOs and CBOs in order to be "grant eligible;" six of these criteria are mandatory (registered as organization for three years, audited financial statements, experience with GEF thematic areas, etc.); as well as four criteria ranging from desirable to highly desirable. While such precision may not be appropriate for other country program offices, it provides India comprehensive criteria designed to ensure that reputable grantees are selected.
Guidance to grantees	Program management	The country program office provides detailed guidance to grantees on critical areas such as cofinancing and knowledge management in the form of an India-specific country office program manual.
Use of interns	Program management	Extensive use of interns was noted in India with as many as five to six interns a year used at the Delhi location and more at each of seven field offices; the interns get paid a nominal amount to enhance their commitment and defray commuting/travel costs.
Detailed NSC meeting minutes	Program management	The NSC minutes of India are the most detailed of any country program audited, at times exceeding 180 pages with annexes. Detailed project discussion comments, input from NSC members, evidence of approval of the country program strategy, evidence of approval of use of RAF funds, and other critical NSC activities are all fully and very well documented.
Composition of NSC	Governance	The NSC is comprised of 40% women. India's program guidance has gender sensitivity and expertise in gender issues as a mandatory requirement of NGOs and CBOs in order to be eligible for grants. This combination of gender focus at both the NSC level and the program level is excellent.
Level of administrative costs	Program management	With $85,937 in administrative costs as compared to $720,000 in grants, administrative costs would appear to be a low 11.9% of grants; as the SGP also administers grants provided by UNDP, the actual administrative ratio is even less. This compares favorably with most all other country programs audited.

SOURCE: Adapted from Deloitte and Touche LLP 2009.

NOTE: NSC = national steering committee.

allow for synergistic implementation of the project. Each of the partner institutions was well aware of each other's role within the project, their responsibilities, and the outputs achieved. In the Third National Communication (GEF ID 4673), which is presently in the design phase, there are plans for broadening the scope and involvement of an even greater number of project partners—of course, with simultaneous establishment of an effective coordination mechanism.

Generally, the coordination mechanisms established within the framework of the various GEF projects seem to be effective. The mechanisms also seem to be effective in encouraging the participation of local communities and in clearly defining the roles and responsibilities of each partner organization. Particularly effective mechanisms were observed for the biodiversity projects, including the Gulf of Mannar Biosphere Reserve project, the India Eco-Development project, and the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project; in all of these, local communities have been involved in the conservation of their area's biodiversity. Strong community participation has enabled each of these projects to implement their activities effectively, ensure sustainable use of local natural resources, and achieve desired results and impacts.

Another significant example of effective coordination among project partners is the implementation of the SGP in India. With more than 319 small grants implemented under the program, it has facilitated the involvement of more than 250 NGOs and CBOs. In several cases, a number of local government agencies and institutions are also

involved in these projects, so as to enable connection with existing government schemes and programs. Although the scale of the projects is small, the funds limited, and the geographical spread of the SGP portfolio immense, effective transmission of learning and coordination among the various project partners is observed in the program's implementation in India.

At a broader level, an institutional mechanism for coordination of GEF-supported activities is in place, consisting of the GEF Empowered Committee and the GEF Cell. The roles and responsibilities of these entities are described in chapter 6.

7.5 Synergies: Cross-Agency Learning

As opposed to the effective coordination observed among the various project partners of GEF-supported activities in India, there is a lack of synergy among the GEF Agencies. In general, although there has been observed sharing and cross-learning within the different GEF-supported projects implemented by the same GEF Agency, the same is not true between Agencies. Monthly meetings, regular informal interactions among staff, and other platforms seem to facilitate the sharing of lessons learned and experiences within the organization. Generally, experience sharing across the GEF Agencies is found to be lacking.

However, with the design of umbrella programs within the GEF portfolio in recent times such as the SLEM Program and the Energy Efficiency Program, inter-Agency synergy has improved to a great extent. The involvement of different Agencies within the same umbrella program has helped provide a number of platforms for regular interaction and synergistic cross-learning among the various Agencies.

7.6 Monitoring and Evaluation

MONITORING OF THE NATIONAL PORTFOLIO

Monitoring of the GEF portfolio at the country level is performed by the GEF operational focal point. Monitoring at this level mostly involves maintenance of basic data on the projects constituting the national portfolio. These data include information on project title, implementing and executing agencies, focal area, type, GEF grant and cofinancing, activity cycle dates, etc. The operational focal point also reviews the information provided by the PIRs, midterm reviews, terminal evaluations, etc.

While reporting in midterm reviews and terminal evaluation reports seems to be fairly candid, the PIRs seems to be overly optimistic—a phenomenon that is quite pervasive across the GEF's global portfolio and that has been reported as a concern (GEF EO 2008). An example of this problem was observed for the UNDP-implemented Thar desert ecosystem project. Even though UNDP was aware of implementation problems, these were not reported in the PIRs submitted to the GEF. The Agency did take appropriate corrective measures, and the problems were resolved; nonetheless, not relaying concerns observed on the ground through the PIRs poses a risk to the GEF portfolio, as it prevents the GEF and other stakeholders from having a realistic picture of the a project's—and thus the portfolio's—health.

There is much variance in the M&E approaches adopted by the different GEF Agencies, including in the formats for PIRs, midterm reviews, terminal evaluations, and other M&E tools. As a result, there is a lack of compatibility and comparability across various documents and outputs, which makes national-level aggregations difficult. On the other hand, while a uniform approach might make an overall portfolio-level comparison easier, it might make for a more onerous exercise for the Agencies that already have well-established

reporting systems; changing these exclusively for GEF projects might entail a significant additional burden.

More substantive portfolio monitoring will be extremely useful in documenting environmental achievements and their relationship to national goals, Millennium Development Goals, and GEF strategic targets. It would also prevent duplication of efforts by other donors and government agencies, identify implementation challenges and reasons for delays, support adaptive management of projects, and contribute to reporting on a global level.

Regarding the SGP portfolio in India, although the individual grant-level monitoring is weak due to limited resource availability and capacities, an effective monitoring mechanism seems to be in place at the national program level. Regular field visits and other monitoring mechanisms are applied at the portfolio level to ensure its success and effectiveness. Since the organizations involved in implementation of SGP projects are small and locally based, they are provided "hand-holding" support and continuous capacity building.

MONITORING AND EVALUATION AT THE PROJECT LEVEL

The desk reviews undertaken as part of the India CPE assessed the quality of indicators used to track results. Of the 14 completed projects for which there was sufficient information to allow such an assessment, 8 were found to have not used appropriate indicators to track results, given the project objectives and activities. This appraisal is consistent with ratings provided by the GEF Evaluation Office through its terminal evaluation report review process. Of the seven completed GEF projects in India for which the GEF Evaluation Office provided ratings, the quality of M&E in only three projects was assessed to be in the satisfactory range.

There is some evidence that the quality of M&E arrangements may be improving. The M&E design of projects that are under implementation or in the pipeline was assessed as relatively better than in the past. The M&E system of most of the pipeline projects is satisfactory. Appropriate performance and impact indicators have been included, along with corresponding means of verification. There is an appropriate level of emphasis on reporting requirements, external evaluations, and the inclusion of M&E costs in the project budget.

Several examples demonstrate that effective M&E has led to adaptive management and the development of new strategies within the project design itself to overcome hurdles in implementation. For instance, the M&E aspect of the Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity project was determined to be weak at the project level. To address this, a private company was hired to train all key project stakeholders and enhance their capabilities in M&E.

EVALUATION GAP FOR THE CHEMICALS FOCAL AREA

To report on project results and Agency performance, the GEF Evaluation Office not only relies on the information reported by the GEF Agencies but also on independent verification carried out by the GEF Evaluation Office in the field. The GEF M&E Policy (GEF EO 2010) requires that the GEF Agencies respond promptly and fully to requests from the Office for information or support relating to the M&E of GEF activities.

During the course of the evaluation, the team was not able to conduct field verification for two UNIDO-implemented and MoEF-executed chemicals projects: the completed NIP development project and the ongoing PCB management and disposal project. The evaluation team had first contacted the executing agency for the PCB project in July 2012, informing it of the selection of these two projects for fieldwork along with submitting a request for support in conducting the field visits. The executing

agency refused to provide access to the project sites, as the contract between UNIDO and the MoEF did not require the latter to provide support to and facilitate GEF Evaluation Office evaluations.

In November 2012, after intervention from the GEF operational focal point, the executing agency agreed to facilitate field verification. The Director of the GEF Evaluation Office requested that UNIDO and the MoEF expedite the field visits as the fieldwork component of the evaluation would be closed by early December. In an email dated December 11, 2012, the executing agency informed the evaluation team that it could undertake the visits, but imposed the condition that representatives from UNIDO and the executing agency would be present during the visits to "oversee" the evaluation.[2] This condition was unacceptable, because it compromised the independence of the evaluation.

Although the team could have requested another intervention from the GEF operational focal point to persuade the executing agency to drop the condition, it ultimately decided to cancel the field verification for these two projects because the evaluation had been delayed for too long. Consequently, the GEF Evaluation Office is unable to report on the chemicals focal area projects based on data collected through fieldwork. All the reporting presented here on chemicals projects is based on desk review of available information and interviews of the national stakeholders.

While the GEF has had a long engagement in the biodiversity and climate change focal areas, its engagement with chemicals is relatively new in India. In general, GEF support is being implemented in the country with a spirit of collaboration and partnership. The problems faced in evaluating the chemicals portfolio might be because the executing agency was not aware of the full nature of the relationship between the GEF and India. However, if this gap in understanding were to continue, it would prevent the GEF partnership from learning from experience in the chemicals focal area. There is a need to find ways to implement GEF support to chemicals as smoothly as it is being implemented in the other focal areas.

[2] UNIDO subsequently clarified that this condition was put in place by the executing agency without its consultation and that UNIDO does not endorse such a condition as it is inconsistent with its own M&E policy.

Annex A. Terms of Reference

This annex presents the terms of reference for the India Country Portfolio Evaluation approved by Rob D. van den Berg, Director, GEF Evaluation Office, on June 5, 2012. Minor edits have been made for consistency.

A.1 Background

The country portfolio evaluation is one of the main streams of work of the GEF Evaluation Office.[1] By capturing aggregate portfolio results and performance of the GEF at the country level, it provides useful information for both the GEF Council and the countries. Its purpose is to provide an assessment of how GEF-supported activities are implemented at the country level, the results of these activities, and how these are linked to the GEF mandate and national priorities. CPEs' relevance and utility will increase in GEF-5 with the increased emphasis on country ownership and portfolio development at the country level.

With an area of 3.29 million square kilometers, India is the seventh largest country in the world. It has a population of more than 1.2 billion, which makes it the second most populous country. India has experienced rapid economic growth over the last 20 years and is rapidly emerging as a major economic power. It has a very wide range of ecosystems and habitats, and is known for its rich biodiversity. Rapid population growth, gaps in institutional capacities, and trade-offs made for rapid economic development have, however, put India's significant natural resources under pressure. Given the size of its geographical area and population, and its economic growth, India is important to any global strategy for climate change mitigation and adaptation.

Since its inception, the GEF has therefore been supporting projects in India to generate global environmental benefits. Up to April 2012, the GEF had allocated $340 million through 49 approved national projects in India. Fourteen (29 percent) of these national projects have been completed, and 22 (45 percent) are under implementation. India is also a participant in 16 regional and global projects supported by the GEF. All the GEF focal areas—other than ozone-depleting substances—are represented in the India portfolio; climate change mitigation accounts for 41 percent of the GEF funding.

India has been selected for a CPE because its GEF project portfolio is relatively large, mature, and diverse; and because it has not yet been adequately covered by the Evaluation Office through its work.

This document presents the country-specific terms of reference for the India CPE. It is based on the standard terms of reference for GEF CPEs approved by the Director of the GEF Evaluation

[1] CPEs have been completed for Nicaragua, the Organisation of Eastern Caribbean States countries, Moldova, Turkey, Syria, Cameroon, Egypt, South Africa, Benin, Madagascar, Samoa, the Philippines, and Costa Rica. Ongoing CPEs are being conducted in Brazil and Cuba. In addition, country portfolio studies, which are of less intensity than CPEs, have been undertaken in El Salvador, Jamaica, and Timor-Leste.

Office in September 2010. The standard terms of reference may be accessed at http://www.thegef.org/gef/sites/thegef.org/files/documents/EO_CPE_STORs_ENG.pdf. The country-specific terms of reference for India incorporate inputs received from the key stakeholders during the prescoping and scoping mission undertaken by the Office. However, care has been taken to ensure that the country-specific terms of reference for India are consistent with the standard terms of reference to allow comparisons across countries.

The India CPE is being conducted fully and independently by the GEF Evaluation Office through a national firm. The Office is ensuring the quality of the evaluation through a national quality assurance panel (see annex K). The Office is drawing on the support of the GEF focal points for India (both political and operational) and the GEF Agencies in implementation of this evaluation.

A.2 Objectives

The purpose of the GEF India CPE is to provide the GEF Council with an assessment of how GEF-supported activities are implemented in India, a report on results from projects, and an assessment of how these projects are linked to national environmental and sustainable development agendas as well as to the GEF mandate of generating global environmental benefits within its focal areas. The India CPE would contribute to the shared objectives of the CPEs:

- Independently evaluate the *relevance* and *efficiency*[2] of GEF support in a country from several points of view: environmental frameworks and decision-making processes, the GEF mandate and the achievement of global environmental benefits, and GEF policies and procedures
- Assess the *effectiveness* and *results*[3] of completed projects aggregated at the focal area
- Provide additional evaluative evidence to other evaluations conducted or sponsored by the 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 or collaboration with the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF-funded projects and activities

The India CPE will aim to bring to the attention of the Council different experiences and lessons on how the GEF is implemented in India. The India CPE is not aimed at evaluating the performance of GEF Agencies, national entities (agencies/departments, national governments, or involved civil society organizations), or individual projects.

A.3 Key Evaluation Questions

The India CPE will be guided by the following key questions that should be answered based on the analysis of the evaluative information and perceptions collected during the evaluation exercise:

Effectiveness, Results, and Sustainability

- Are GEF-supported projects and activities effective in producing short-term outcomes, attainment of intermediary stages, and long-term impacts at the project, focal area, and country levels?

[2] *Relevance:* the extent to which the objectives of the GEF activity are consistent with beneficiary requirements, country needs, global priorities, and partner and donor policies; *efficiency:* a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.

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

- What has been the effect and contribution of GEF activities on the legal framework, policies, and regulatory environment of India?
- What are the factors that are aiding and/or hindering achievement of results? What are the mechanisms (such as replication, up-scaling, mainstreaming, and/or market transformation) through which long-term impacts are being achieved?
- Is GEF support effective in producing results that last over time and continue after project completion? To what extent are follow-up actions that would build on GEF-supported activities being supported by other actors?
- Is the scale of GEF support adequate to make any significant impact on the country's efforts?
- Is GEF support effective in producing results related to the dissemination of lessons learned in GEF projects and with partners?

Relevance

- Is GEF support relevant to the national sustainability development agenda and environmental priorities?
- Is GEF support relevant to the existing country development needs and emerging challenges?
- How are GEF projects and programs conceived and developed? How do Agencies identify proposals and develop them?
- Is GEF support relevant to national action plans?
- Is GEF support in the country relevant to the objectives linked to the different global environmental benefits in the biodiversity, climate change, international waters, land degradation, and chemicals focal areas?
- Are the GEF and its Agencies supporting environmental and sustainable development prioritization, country ownership, and the decision-making process of the country?
- To what extent have GEF-supported activities also received support from the country and from other donors?

Efficiency

- How much time, effort, and financial resources does it take to formulate and implement projects, by type of GEF support modality? How have time delays, if any, affected project activities and deliverables?
- Is the administrative budget of projects sufficient to ensure quality in project implementation?
- How important is cofinancing, how well is it integrated in projects, and what is the extent and what are the ways in which it is actually materializing? Is cofinancing a deterrent in conceiving good projects? What are the trade-offs being made to meet the cofinancing requirement of the GEF?
- What are the roles and types of engagement and coordination among different stakeholders during various stages of the project cycle?
- Are there synergies among GEF Agencies, national institutions, and GEF support and other donors, in GEF programming and implementation?
- What role does M&E play in increasing project adaptive management and overall efficiency?
- How efficiently is the GEF support for communication and outreach being utilized, and are related policies being complied with?

Each of these questions is complemented by indicators, potential sources of information, and methods in an evaluation matrix. A standard version of the CPE evaluation matrix is included in annex B.

A.4 Scope and Limitations

The CPE will cover all types of GEF-supported activities in the country at different stages of the

project cycle (pipeline, ongoing, and completed) and implemented by all GEF Agencies in all focal areas, including applicable GEF corporate activities such as the Small Grants Programme and a selection of regional and global programs that are of special relevance to the country. However, the main focus of the evaluation will be the projects implemented within the country boundaries—i.e., the national projects, be these full or medium size, or enabling activities.[4]

The stage of a project will determine the expected focus of its assessment (see table A.1).

The GEF does not establish country programs that specify expected achievements through programmatic objectives, indicators, and targets. However, since 2010, the GEF has started supporting countries in undertaking national portfolio formulation exercises on a voluntary basis. These exercises serve as a priority-setting tool for countries and as a guide for GEF Agencies as they assist recipient countries. India completed its portfolio formulation exercise in 2011 (http://www.thegef.org/gef/sites/thegef.org/files/documents/document/India_NPFD.pdf). The priorities laid out in the document prepared after the portfolio formulation exercise in India will serve as a framework to assess the relevance of various recent projects to national priorities. However, for past projects, some degree of retrofitting may be required. The India CPE will also be conducted taking note of relevant national and GEF Agency strategies, country programs, and/or planning frameworks as a basis for assessing the aggregate results, efficiency, and relevance of the GEF country portfolio.

GEF support is provided through partnerships with many institutions operating at many levels, from local to national and international levels. It is therefore challenging to consider GEF support separately. The India CPE will not attempt to provide a direct attribution of development results to the GEF, but will address the contribution of GEF support to the overall achievements, i.e., to establish a credible link between GEF-supported activities and their implications. The evaluation will address how GEF support has contributed to overall achievements in partnership with others through questions on roles and coordination, synergies and complementarities, and knowledge sharing.

The assessment of results will be focused, where possible, at the level of outcomes and impacts rather than outputs. Project-level results will be measured against the overall expected impacts and outcomes from each project. Progress toward impact of completed projects that are sufficiently mature (i.e., completed since at least two years), and where direct or proximate indirect impacts may be expected, will be looked at through field ROtI studies. In all, four such ROtI assessments are planned. The implementation progress for projects under implementation will be field verified for a sample of projects. Desk reviews will be undertaken for all completed, under imple-

[4] The review of selected regional projects will feed into the aggregate assessment of the national GEF portfolio described above.

TABLE A.1 **Focus of Evaluation According to Stage of Project**

	Focus			
Project status	**Relevance**	**Efficiency**	**Effectiveness (short-term outcomes)**	**Long-term impacts and intermediary stages**
Completed	Full	Full	Full	Full/partial/likelihood[a]
Ongoing	Full	Partially	Likelihood	Likelihood
Pipeline	Expected	Processes	Not applicable	Not applicable

a. Depending on the time lag after completion, nature of a project and contextual conditions, the extent to which long-term impacts and/or achievement of intermediary stages may be assessed for a project may differ. The focus of inquiry would also, therefore, change.

mentation, and in pipeline projects that have been approved by the GEF Council. For specific analysis, dropped, canceled, and submitted proposals may also be included.

Expected impacts at the focal area level will be assessed in the context of GEF objectives and indicators of global environmental benefits. Outcomes at the focal area level will be primarily assessed in relation to catalytic and replication effects, institutional sustainability and capacity building, and awareness. The inclusion of regional and global projects increases the complexity of this type of evaluation since these projects are developed and approved under a different context (i.e., regional or global policies and strategies) than are national ones. However, a representative number of regional and global projects will be included based on criteria such as the relevance of the regional project to the country, the implementation unit's being located in the country, among others.

The context in which these projects were developed, approved, and are being implemented constitutes another focus of the evaluation. This includes a historic assessment of national sustainable development and environmental policies, strategies, and priorities; the legal environment in which these policies are implemented and enforced; GEF Agencies' country strategies and programs; and GEF policies, principles, programs, and strategies.

A.5 Methodology

The India CPE is being conducted by staff of the GEF Evaluation Office and a national firm. The evaluation team is led by a task manager from the GEF Evaluation Office, who is supported by a national quality assurance panel to ensure the quality of evaluation processes and products. The team includes technical expertise on national environmental and sustainable development strategies, evaluation methodologies, and GEF focal areas. The selected firm qualifies under the GEF Evaluation Office ethical guidelines, and its undertaking the evaluation does not raise concerns related to conflict of interest. The operational focal point of India and his team is a resource in facilitating the CPE process by identifying interviewees and source documents and in organizing interviews, meetings, and field visits.

The methodology includes a series of components using a combination of qualitative and quantitative evaluation methods and tools. The expected sources of information include the following:

- *Project level:* project documents, project implementation reports, terminal evaluations, midterm reviews, terminal evaluation reviews, reports from monitoring visits, and any other technical documents produced by projects
- *Country level:* national sustainable development agendas, environmental priorities and strategies, GEF-wide focal area strategies and action plans, and global and national environmental indicators
- *Agency level:* country assistance strategies and frameworks and their evaluations and reviews
- Evaluative evidence at the country level from other evaluations implemented either by the Office, by the independent evaluation offices of GEF Agencies, or by other national or international evaluation departments
- Interviews with GEF stakeholders, including the GEF operational focal point and all other relevant government departments, bilateral and multilateral donors, civil society organizations and academia (including both local and international NGOs with a presence in the country), GEF Agencies, the SGP, and the national UN convention focal points
- Interviews with GEF beneficiaries and supported institutions, municipal governments and associations, and local communities and authorities
- Surveys with GEF stakeholders in the country

- Field visits to selected project sites, using methods and tools developed by the Office such as the Guidelines for Terminal Evaluation Reviews or the *Review of Outcomes to Impact (ROtI) Practitioners Handbook*
- 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 (i.e., linkages with national priorities, time and cost of preparing and implementing projects, etc.) and to measure GEF results (i.e., progress toward achieving global environmental impacts) and the performance of projects (such as implementation and completion ratings). Available statistics and scientific sources, especially for national environmental indicators, will also be used.

The evaluation team will use standard tools and protocols for the CPEs and adapt these to the national context. These tools include a project review protocol to conduct the desk and field reviews of GEF projects and interview guides to conduct interviews with different stakeholders.

The CPE will include visits to project sites. The criteria for selecting the sites will be finalized during the implementation of the evaluation, with emphasis placed on both ongoing and completed projects. The evaluation team will decide on specific sites to visit based on the initial review of documentation and balancing needs of representation as well as cost-effectiveness in conducting the field visits.

Quality assurance on evaluation methods, tools, and processes used will be performed at key stages of the process (terms of reference development, draft and final CPE reports) by two renowned independent national experts who are familiar with the GEF, its activities, and the country-specific context of India.

A.6 Process and Outputs

The CPE commences once the country is selected and has agreed to undergo the CPE and other preparatory work and preliminary data gathering have been undertaken. Some of the steps involved in the CPE process have already been completed. The steps involved in the full process are as follows.

- *Prescoping:* secure government support, in particular from GEF operational focal points. The operational focal point was requested to provide support to the evaluation such as identification of key people to be interviewed; support to organize interviews, field visits, and meetings; and identification of main documents. His agreement on the implementation structure of the evaluation and on the national quality assurance panel was obtained. The operational focal point has expressed support for the evaluation, and his team has been helping the evaluation team in moving forward with the evaluation.
- *Scoping of the evaluation:* the scope of the evaluation has been defined through consultations with national stakeholders on key issues that need to be included in the analysis. A stakeholder consultation workshop was conducted to present the standard terms of reference for the evaluation and to receive comments to develop country-specific terms of reference; individual meetings were also conducted with some of the key stakeholders for consultations.

  The revised country-specific terms of reference, with an annexed evaluation matrix, have been shared with the quality assurance panel for feedback. The final terms of reference for the India CPE, after its approval by the GEF Evaluation Office Director, will be shared with the stakeholders and disclosed publicly.
- Launch the evaluative phase, collect information, and review literature to extract existing reliable evaluative evidence.

- Prepare specific inputs to the CPE, including
  - the GEF portfolio database, which describes all GEF support activities within the country, basic information (GEF Agency, focal area, implementation status), project cycle information, GEF and cofinancing financial information, major objectives and expected (or actual) results, key partners per project, etc.;
  - the country environmental legal framework, which provides a historical perspective of the context in which GEF projects have been developed and implemented and is based on information on environmental legislation, environmental policies of each government administration (plans, strategies, and similar), and the international agreements signed by the country presented and analyzed through time so as to be able to connect with particular GEF support; and
  - the 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 STAR (biodiversity, climate change, and land degradation) and others used in project documents.
- Prepare desk reviews for all the completed, under implementation, and Council-approved projects.
- Conduct field verification of a representative sample of projects that are under implementation.
- Conduct intensive field studies (field ROtIs) of completed national projects.
- Conduct interviews, discussions, surveys, a literature review, and stakeholder workshops to gather information on specific issues covered through the CPE.
- Conduct the evaluation analysis and triangulation of collected information and evidence from various sources, tools, and methods. This will be done during a second mission in the country by Office staff to consolidate the evidence gathered so far and fill in any eventual information and analysis gaps before getting to findings, conclusions, and preliminary recommendations. During this mission, additional analysis, meetings, document reviews, and/or fieldwork might be undertaken as needed.
- Conduct a national stakeholder consultation workshop for government and national stakeholders, including project staff, donors, and GEF Agencies, to present and gather stakeholder feedback on the main CPE findings, conclusions, and preliminary recommendations to be included in an aide-mémoire. The workshop will also be an opportunity to verify eventual errors of fact or analysis in case these are supported by adequate additional evidence brought to the attention of the evaluation team.
- Prepare and circulate to stakeholders and peer reviewers a draft CPE report, which incorporates comments received at the national stakeholder consultation workshop.
- Consider the eventual incorporation of comments received to the draft report and prepare the final CPE report, and submit it to the quality assurance panel for its feedback before finalization.[5]

A.7 Key Milestones

The evaluation process commenced in October 2011. It is expected to be complete in January 2013. The key milestones of the evaluation are presented in table A.2.

[5] The GEF Evaluation Office will bear full responsibility for the content of the report.

TABLE A.2 **Evaluation Milestones**

Milestone	Expected date of completion
Preparatory work, preliminary data gathering	Completed
Scoping mission	Completed
Drafting country-specific terms of reference/evaluation matrix	Completed
Quality control/peer review, finalization and disclosure of terms of reference	June 2012
Launching evaluation phase, literature review, data gathering	May 2012
Finalization of the GEF country portfolio database	June 2012
Country environmental legal framework	July 2012
Global environmental benefits assessment	Completed
Field studies	August 2012
Data collection/interviews and project review protocols	August 2012
Consolidation and triangulation of evaluative evidence, additional analysis	August–September 2012
Presentation of key preliminary findings in a national consultation workshop	October–November 2012
Draft CPE report sent out to stakeholders and peer reviewers for comment	November–December 2012
Incorporation of comments received in a final CPE report	December 2012
Final CPE report	December 2012
Country response to the CPE	January 2013

Annex B. Evaluation Matrix

This annex presents the evaluation matrix used in the India Country Portfolio Evaluation. Minor edits have been made for consistency.

Key question	Indicators/basic data	Sources of information	Methodology
Effectiveness, results, and sustainability			
Are GEF-supported projects and activities effective in producing short-term outcomes, attainment of intermediary stages, and long-term impacts at the project, focal area, and country levels?	• Outcomes, intermediary states, and impacts (including unintended impacts) achievements at project, focal area, and country levels • Factors that have aided and/or hindered progress toward impact and achievement of impact	• Project staffs and beneficiaries, national and local government representatives • Key stakeholders and other knowledgeable individuals • ROtI studies • Project-related documentation, other studies, and independently conducted evaluations by others	• Focus group discussions and individual interviews • ROtI methodology • Desk reviews
	• Ratings on achievement of project outcomes (i.e., self-ratings and independent ratings)	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.)	• Desk reviews, project review protocols • GEF portfolio aggregate analysis
	• Changes in global benefit indexes and other global environmental indicators	• Evaluative evidence from projects and donors, global environmental benefits assessment	• Literature review, meta-analysis of evaluation reports
What has been the effect and contribution of GEF activities on the legal framework, policies, and regulatory environment of India?	• Accomplishments in terms of influence on legal framework, policies, and regulatory environment • GEF contributions within the context of other actors • Enablers and choke points	• Project staffs, national and local government representatives • Key stakeholders and other knowledgeable individuals • Relevant studies and independently conducted evaluations by others	• Focus group discussions and individual interviews • ROtI methodology • Literature review

Key question	Indicators/basic data	Sources of information	Methodology
What are the factors that are aiding and/or hindering achievement of results? What are the mechanisms through which long-term impacts are being achieved?	• Prevalence and extent processes replication, mainstreaming, up-scaling, market change, and sustenance are facilitating achievement of long-term impacts • Factors that have aided and/or hindered progress toward impact and achievement of impact	• Project staffs and beneficiaries, national and local government representatives • Key stakeholders and other knowledgeable individuals • ROtI studies	• Focus group discussions and individual interviews • ROtI methodology
Is GEF support effective in producing results that last over time and continue after project completion? To what extent are follow-up actions that would build on GEF-supported activities being supported by other actors?	• Risks to sustenance of results achieved at the local and national levels • Prevalence of follow-up actions by other actors that build on GEF achievements	• Project staffs and beneficiaries, national and local government representatives • Key stakeholders and other knowledgeable individuals • ROtI studies	• Focus group discussions and individual interviews • ROtI methodology
Is the scale of GEF support adequate to make any significant impact on the country's efforts?	• Actual scale versus desired scale to problems through GEF projects • Intensity at which problems are addressed by the GEF projects • Assumed and actual role of other actors including follow-up actions	• Project staffs and beneficiaries, national and local government representatives • Key stakeholders and other knowledgeable individuals • ROtI studies • Field verifications	• Focus group discussions and individual interviews • ROtI methodology • Field verifications
Is GEF support effective in producing results related to the dissemination of lessons learned in GEF projects and with partners?	• GEF projects incorporate lessons from preceding GEF projects • Lessons from GEF projects and activities are being incorporated by GEF Agencies in projects and activities that are not supported by the GEF • Knowledge-sharing publications by the Evaluation Office and the Secretariat are deemed as useful by the GEF partners	• Project staffs and beneficiaries, national and local government representatives • Key stakeholders and other knowledgeable individuals, especially in Agencies	• Focus group discussions and individual interviews

Key question	Indicators/basic data	Sources of information	Methodology
		Relevance	
Is GEF support relevant to the national sustainability development agenda and environmental priorities?	• GEF support is within the country's sustainable development agenda and environmental priorities • Level of GEF funding compared to other official development assistance in the environmental sector • GEF support has country ownership and is country based (i.e., project origin, design, and implementation)	• Relevant country-level sustainable development and environmental policies, strategies, and action plans • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agencies' project databases • Available databases (international, e.g., World Bank, Organisation for Economic Co-operation and Development, etc.; and national, e.g., department of statistics, other) • Government officials, Agency staff, donor and civil society representatives • Country legal environmental framework	• Desk review; GEF portfolio analysis by focal area, Agency, modality, and project status (national) • Stakeholder consultation (focus groups, individual interviews) • Literature review, timelines, historical causality, etc.
Is GEF support relevant to the existing country development needs and emerging challenges?	• The GEF supports development needs (i.e., income generating, capacity building) and reduces challenges • The GEF's various types of modalities, projects, and instruments are coherent with country needs and challenges • Effect of federal structure of the country on GEF operations and result achievement	• Relevant country-level sustainable development and environmental policies, strategies, and action plans • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases • Government officials, Agency staff, donor and civil society representatives • Country legal environmental framework	• Desk review; GEF portfolio analysis by focal area, Agency, modality, and project status (national) • Stakeholder consultation (focus groups, individual interviews) • Literature review, timelines, historical causality, etc.
How are GEF projects and programs conceived and developed? How do Agencies identify proposals and develop them?	• Project and program development process • Role of Agencies and focal point, and other actors	• Agency staff, government officials, focal point and past focal points, civil society organizations • Field verifications	• Interviews, discussions, and consultations • Field verifications
Is GEF support relevant to national action plans?	• GEF support linked to the national environmental action plan; national communications to the UNFCCC; national POPs; national capacity self-assessment; adaptation to climate change (national adaptation plan of action), etc.	• GEF-supported enabling activities and products (national capacity self-assessment, national environmental action plan, national adaptation plan of action, national communications to UN conventions, etc.) • Stakeholder consultation (focus groups, individual interviews)	• Interviews, discussions, and consultations • Desk review

Key question	Indicators/basic data	Sources of information	Methodology
Is GEF support in the country relevant to the objectives linked to the different global environmental benefits in the biodiversity, climate change, international waters, land degradation, and chemicals focal areas?	• Project outcomes and impacts are related to the RAF and STAR global benefit index (for biodiversity and climate change and land degradation) and to other global indicators for chemicals and international waters • GEF support linked to national commitments to conventions	• National convention action plans, RAF, STAR, biodiversity scorecard, etc. • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases • Government officials, Agency staff, donor and civil society representatives • Global environmental benefits assessment	• Desk review, project field visits, project review protocols • Literature review, timelines, historical causality, etc. • GEF portfolio analysis by focal area, Agency, modality, and project status (national) • Stakeholder consultation (focus groups, individual interviews) • Literature review
Are the GEF and its Agencies supporting environmental and sustainable development prioritization, country ownership, and the decision-making process of the country?	• GEF Agencies' support to national environmental and sustainable development prioritization, country ownership, and country decision-making process	• GEF Secretariat staff and technical staff from GEF Agencies • Government officials, Agency staff, donor and civil society representatives • GEF Instrument, Council decisions, focal area strategies, GEF-4 programming strategy, GEF Agency country strategies and plans • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases	• Stakeholder consultation (focus groups, individual interviews) • Desk review, GEF portfolio analysis by focal area, Agency, modality, and project status (national)
To what extent have GEF-supported activities also received support from the country and from other donors?	• GEF activities, country commitment, and project counterparts support the GEF mandate and GEF focal area programs and strategies	• GEF Instrument, Council decisions, focal area strategies, GEF-4 programming strategy • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases • Government officials, Agency taff, donor and civil society representatives • GEF Secretariat staff and GEF Agency technical staff • Global environmental benefits assessment • Country legal environmental framework	• Desk review, GEF portfolio analysis by focal area, Agency, modality, and project status (national) • Stakeholder consultation (focus groups, individual interviews) • Literature review, timelines, historical causality, etc.

Key question	Indicators/basic data	Sources of information	Methodology
How innovative are GEF projects?	• Ability to promote new ideas • Willingness to support projects that entail higher risks of failure	• Present and past focal points, Agencies, civil society organizations, and other key stakeholders	• Interviews and stakeholder consultation
		Efficiency	
How much time, effort, and financial resources does it take to formulate and implement projects, by type of GEF support modality? How have time delays, if any, affected project activities and deliverables?	• Process indicators: processing timing (according to project cycle steps), preparation and implementation cost by type of modality, etc. • Incidence, causes, and consequences of delays • Project drop-outs from PDF and cancellations	• Project-related documentation (project documents and logframes, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases, RAF pipeline • GEF Secretariat and Agency staff and government officials • National and local government officials, donors, NGOs, beneficiaries	• Desk review, GEF portfolio analysis, timelines • Interviews, field visits, project review protocols
Is the administrative budget of projects sufficient to ensure quality in project implementation?	• Sufficiency of budget to meet project administration costs—trade-offs being made by executing agencies to work within the provided support for administrative costs • Level of independence, quality, and timeliness of external evaluations • Project and program compliance with GEF and GEF Agency M&E policies	• National and local government officials, donors • Executing agencies • Field verifications • National and local government officials, donors, NGOs, beneficiaries • Evaluations of other donor-funded projects	• Interviews and focus group discussion • Field verifications • Meta-analysis of evaluation reports
How efficiently is GEF support for communication and outreach being utilized, and are related policies being complied with?	• Cost-effective utilization of the communication and outreach component of GEF projects • Level of compliance with GEF policies on GEF visibility	• Government officials • Agency staff • Project staff	• Interviews of key stakeholders • Field verification of projects under implementation

Annex C. Interviewees

Srinivasan Iyer, Assistant Country Director and Head – Energy & Environment Unit, UNDP India, April 12, 2012

Sunil Arora, Programme Officer, UNDP, April 12 and 16, 2012

Gireesh Madan, Manager Monitoring & Evaluation, Project Management Cell, UNDP-GEF Project (Steel), April 16, 2012

Prem N. Mathur, South Asia Coordinator, Sub-regional Office for South Asia, Asia, the Pacific and Oceania Region, Bioversity International, Office for South Asia, National Agricultural Science Centre, April 17, 2012

Bhuwon Sthapit, Regional Project Coordinator, In-situ Conservation Specialist, Diversity for Livelihoods Programme, Bioversity International, Office for South Asia, National Agricultural Science Centre, April 17, 2012

Maninder Kaur, Programme Assistant, Diversity for Livelihoods Programme, Bioversity International, Office for South Asia, National Agricultural Science Centre, April 17, 2012

Hugo A. H. Lamers, Associate Scientist, Socio-economic & Marketing, Diversity for Livelihoods Programme, Bioversity International, Office for South Asia, National Agricultural Science Centre, April 17, 2012

Ruchi Pant, Programme Analyst, UNDP, August 8, 2012

Abdul Kareem, Foundation for Revitalization of Local Health Traditions, August 8, 2012

Shantanu Goel, Project Monitoring and Information Officer, UNDP, August 8, 2012

Prabhjot Sodhi, National Coordinator, GEF-UNDP-Centre for Environment Education SGP, August 8, September 1, October 10, November 20 and 29, 2012

Anil Arora, Senior Project officer, GEF-UNDP-Centre for Environment Education SGP, August 8, September 1, October 10, November 20, 2012

R. Ambalavanan, Executive Director, Tea Board of India, August 9, 2012

S. Manigandan, Project officer, TIDE-UPASI Lab, August 9, 2012

Sameer Maithel, Evaluation Consultant, August 9, 2012

Er. Marcial T. Ocampo, International Evaluation Consultant (Philippines), August 9, 2012

M. Surendra Mohan, Manager, Havukal Tea and Produce Company Private Limited, August 9, 2012

R. Vijaya Raju, Chief Operating Officer, CTRD Trust, August 10, 2012

R. S. Ranganathen, Executive Director, CTRD Trust, August 11, 2012

Svati Bhogle, TIDE, August 11, 2012

S. N. Srinivas, Programme Officer, UNDP, August 11, September 3, October 12, 2012

Chitra Narayanswamy, Programme Associate, UNDP, August 11, 2012

Narendra Singh Bisht, Project Associate, SMPB Uttarakhand, August 23, 2012

Archana Chauhan, Director, Chatrasal Seva Sansthan, August 25, 2012

Kuldeep Yadav, Chatrasal Seva Sansthan, August 25, 2012

A. P. Srivastava, National Coordinator, National Agricultural Innovation Project, Indian Council for Agricultural Research, August 30, 2012

R. P. Misra, Principal Scientist (Training), Indian Council for Agricultural Research, August 30, 2012

K. G. Saxena, Professor, Jawaharlal Nehru University (JNU), August 31, 2012

Pradip Das, GEF-UNDP-Centre for Environment Education SGP, September 1, 2012, November 20, 2012

Manisha Sanghani, Programme Associate, UNDP, September 3, October 12, 2012

Lianchawii, Programme Analyst, UNDP, September 3, 2012

Sandeep Garg, Programme Specialist, UNDP, September 3, 2012

Veerendra Veer Singh, Principal Scientist, Central Marine Fisheries Research Institute – Mumbai Research Centre, September 11, 2012

Arun Pande, Head – TCS Innovation Labs Mumbai, September 11, 2012

Dineshkumar Singh, Program Manager – mKRISHI, TCS Innovation Labs Mumbai, September 11, 2012

Vrushali Chintawar, TCS Innovation Labs Mumbai, September 11, 2012

Sujit Shinde, TCS Innovation Labs Mumbai, September 11, 2012

Priyanka Sadanand Vichare, Senior Research Fellow, Central Marine Fisheries Research Institute – Mumbai Research Centre, September 11, 2012

U. M. Chandrashekara, Scientist-in-charge, Kerala Forest Research Institute, Sub Centre Nilambur, September 13, 2012

E. C. Baiju, Assistant Professor, KKTM Government College, September 13, 2012

P. V. Abdulla Koya, Secretary and Chief Functionary, The Serve India, September 16, 2012

K. P. Shashidharan, The Serve India, September 16, 2012

Velaurdhan, The Serve India, September 16, 2012

K. Subramanyam, Resident Manager – South, PMU UNDP-GEF Project (Steel), National Institute of Secondary Steel Technology, September 18, 2012

C. V. S. Murthy, Director, ARS Metals Ltd., September 18, 2012

V. Nadanasabapathy, Chairman, Centre for Rural Education and Economic Development (CREED), September 20, 2012

Meenakshi Sundaram, Centre for Rural Education and Economic Development (CREED), September 20, 2012

V. Deepak Samuel, Programme Specialist, UNDP, September 21, 22, 23, and 24, 2012

T. Anbalagan, Programme Officer – Biodiversity, GOMBRT, September 21 and 23, 2012

Sudhir Kumar Singh, Energy & Environment Specialist, UNIDO South Asia Regional Office, September 28, October 10, November 5, 7, and 12, 2012

Tonilyn Lim, Industrial Development Officer, Regional Office for South Asia, UNIDO, September 28, 2012

Ayumi Fujino, UNIDO Representative for India and Regional Director for South Asia, UNIDO, September 28, October 10, November 5, 7, and 12, 2012

Rajiv Kumar, Deputy General Manager, SIDBI, October 8, 2012

Umesh Chandra Gaur, General Manager, SIDBI, October 8, 2012

Manoj Kumar Gautam, Assistant General Manager, SIDBI, October 8, 2012

Vishal Aggarwal, Energy & Environment Specialist – SME, BEE-GEF-World Bank Program, October 8, 2012

Bhavesh Swami, Manager (Media Awareness), BEE-GEF-World Bank Program, October 8, 2012

A. V. Sahay, General Manager (Geology), Coalbed Methane Cell, Central Mine Planning & Design Institute, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 8, 2012

Tapas K. Samanta, General Manager, Human Resources Development, Central Mine Planning & Design Institute Limited, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 8, 2012

Rajiw Lochan, Chief Manager (Geology), Coalbed Methane Cell, Central Mine Planning & Design Institute, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 8 and 9, 2012

B. N. Prasad, General Manager, Coalbed Methane Cell, India CMM/CBM Clearing House, Central Mine Planning & Design Institute Limited, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 9, 2012

P. K. Roy, Chief Manager, CBM Cell, CBM Lab, Central Mine Planning & Design Institute, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 9, 2012

R. P. Saini, Head, Alternate Hydro Energy Centre, IIT Roorkee, Roorkee, October 9, 2012

M. K. Singhal, Senior Scientific Officer, Alternate Hydro Energy Centre, IIT Roorkee, Roorkee, October 9, 2012

V. A. Mendhe, Scientist, Central Institute of Mining and Fuel Research, Dhanbad, Jharkhand, October 10, 2012

Amlendu Sinha, Director, Central Institute of Mining and Fuel Research, Dhanbad, Jharkhand, October 10, 2012

A. K. Singh, Scientist and Head, Methane Emissions & Degasification, Central Institute of Mining and Fuel Research, Dhanbad, Jharkhand, October 10, 2012

B. K. Mondal, Methane Emissions & Degasification, Central Institute of Mining and Fuel Research, Dhanbad, Jharkhand, October 10, 2012

R. N. Jindal, Additional Director, Ministry of Environment and Forests, Government of India, October 10, November 5, 7, 12, and 20, 2012

Ashwani Sharma, Assistant Project Coordinator, GEF-UNIDO POPs Project, October 10, November 5, 7, 12, and 20, 2012

Sujata Soni Bali, Miran Productions, October 12, 2012

Nutan, All Time Productions, October 12, 2012

Arun Kumar, CSO, Alternate Hydro Energy Centre, IIT Roorkee, Roorkee, October 21, 2012 (via e-mail conversation)

D. V. Satya Kumar, Managing Director, Shri Shakti Alternative Energy Ltd., Hyderabad, Andhra Pradesh, November 2, 2012

Ajay Tyagi, Joint Secretary, Ministry of Environment and Forests, Government of India, November 5, 2012

David Rodgers, Senior Energy Specialist, GEF Secretariat, November 5, 2012

Hierold Juergen, UNIDO GEF-Coordinator, UNIDO Secretariat, November 5, 2012

Golopilz, Advisor, Brahma Kumaris, Shanti Van, Abu Road, Rajasthan, November 14, 2012

Anupam Joshi, Senior Environmental Specialist, World Bank, November 15, 2012

Bipin Rakesh, Legal Consultant, Ministry of Environment and Forests, Government of India, November 20, 2012

Praveen Saxena, Director (SHP), Ministry of New and Renewable Energy, and Director, Indian Renewable Energy Development Agency, November 23, 2012

B. V. Rao, General Manager (Technical Services), Indian Renewable Energy Development Agency, November 23, 2012

Debjani Bhatia, Assistant General Manager, Indian Renewable Energy Development Agency, November 29, 2012

K. P. Philip, Manager, Indian Renewable Energy Development Agency, November 29, 2012

Harish Hande, SELCO Solar Light Pvt. Ltd., Bangalore, December 1, 2012

Surabhi Rajagopal, Principal Analyst, SELCO Foundation, Bangalore, December 1, 2012

Sanjayan Kumar, Deputy Director, Periyar East Division, December 3 and 4, 2012

Sunil C. G., Assistant Nature Education Officer, Periyar Foundation, December 3 and 4, 2012

Amitabh Sharma, Director, A. Power Himalayas, Manali, December 3, 2012

K. L. Thakur, Executive Engineer (Small Hydro), HIMURJA, Shimla, December 4, 2012

Balasubramanian, Conservation Biologist, Periyar Foundation, December 4, 2012

M. P. Singh, Joint Director, Punjab Energy Development Agency, Chandigarh, December 5, 2012

Balkar Singh, Senior Manager, Punjab Energy Development Agency, Chandigarh, December 5, 2012

Surinder Singh, Director, Punjab Genco. Ltd., Chandigarh, December 5, 2012

Kulbir Singh, Manager, Punjab Energy Development Agency, Chandigarh, December 6, 2012

Gurjinder Singh Kabbay, Engineer, Haibowal Biogas Power Plant, Ludhiana, December 6, 2012

Chhanda Chowdhury, Director, Ministry of Environment and Forests, Government of India, December 11, 2012

T. P. Singh, Assistant Director-General, Forests & Climate Change, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Pratap Narian, Consultant – Land Management, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Rashmi Bajaj, Consultant – Policy, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Ram Babu, Consultant – M&E, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Alka Srivastava, Consultant, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Lalit Kumar Sharma, Consultant – Communication, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

Nivedita Thapliyal, Junior Consultant, SLEM TFO, Indian Council for Forestry Research and Education, MoEF, GoI, December 14, 2012

M. Chandrasekaran, Asst. Manager (Electrical), Tamil Nadu Newsprint and Papers Limited, Devarakulam, Tirunelveli District, Tamil Nadu, December 17, 2012

S. J. Vardarajan, Asst. General Manager (Projects), Tamil Nadu Newsprint and Papers Limited, Kagithapuram, Karur District, Tamil Nadu, December 17 and 18, 2012

S. Udayasankar, General Manager (Projects), Tamil Nadu Newsprint and Papers Limited, Kagithapuram, Karur District, Tamil Nadu, December 18, 2012

R. Arumugam, Senior Manager (Electrical), Offsites & Windfarms, Tamil Nadu Newsprint and Papers Limited, Karur District, Kagithapuram, Tamil Nadu, December 18, 2012

P. M. Joshi, Asst. General Manager, Offshore Business, Suzlon Energy Ltd, Race Course, Coimbatore, December 21, 2012

M. Savari Anantham, Deputy General Manager (Windfarm), Dalmia Cements (Bharat) Ltd., Muppundal, Aralvaimozhy, Kanyakumari District, Tamil Nadu, December 22, 2012

J. Thirumeni, Manager (Electrical), Windfarms, Dalmia Cements (Bharat) Ltd., Muppundal, Aralvaimozhy, Kanyakumari District, Tamil Nadu, December 23, 2012

Mahendra Agarwal, Director, Mahendra Sponge & Power Ltd, Raipur, December 19, 2012

Munish Mahajan, Director, Mahendra Sponge & Power Ltd, Raipur, December 19, 2012

B. K. Bandhopadhyay, CPI–National Agricultural Innovation Project, Central Soil and Salinity Research Institute, Canning Town, Kolkata, December 31, 2012

N. J. Maitra, RK Mission Centre, Kolkata, December 31, 2012

P. K. Ghosh, Central Institute for Backwater Fisheries, CMFRI Midnapur Field Centre, December 31, 2012

S. Dam Roy, Director, Central Agricultural Research Institute (CARI), Indian Council for Agricultural Research, Port Blair, Andaman and Nicobar Islands, January 7 and 8, 2013

A. Velmurugan, CCPI–National Agricultural Innovation Project, Central Agricultural Research Institute (CARI), Indian Council for Agricultural Research, Port Blair, Andaman and Nicobar Islands, January 7 and 8, 2013

T. Subramani, Co-PI–National Agricultural Innovation Project, Central Agricultural Research Institute (CARI), Indian Council for Agricultural Research, Port Blair, Andaman and Nicobar Islands, January 7, 2013

Tapan Biswas, Senior Research Fellow (SRF), Central Agricultural Research Institute (CARI), Indian Council for Agricultural Research, Port Blair, Andaman and Nicobar Islands, January 7 and 8, 2013

Prabhakaran, Senior Research Fellow (SRF), Central Agricultural Research Institute (CARI), Indian Council for Agricultural Research, Port Blair, Andaman and Nicobar Islands, January 7 and 8, 2013

Annex D. Sites Visited

Havukal Tea Estate, Havukal Tea and Produce Company Private Limited, Kotagiri, Conoor, Nilgiris, Tamil Nadu, August 9, 2012

SGP sites at Village Kadalakolly, Village Mongodu, Block Gudalur, District Nilgiri, Tamil Nadu, August 10, 2012

Nursery site for the UNDP-SMPB Medicinal Plants Project, Mohan, District Almora, Uttarakhand, August 23, 2012

Medicinal Plant Conservation Area site, Mohan, District Almora, Uttarakhand, August 24, 2012

Project sites at Village Baudmalla, Tok Kapsuli, UNDP-SMPB Medicinal Plants Project, Mohan, District Almora, Uttarakhand, August 24, 2012

SGP sites at Block Tarikhet, District Almora, Uttarakhand, August 25, 2012

Rural Resource Centre, Alibaug, Central Marine Fisheries Research Institute (CMFRI), Mumbai Research Centre (MRC), Mumbai, Maharashtra, September 11, 2012

Project sites at Village Mandwa, Village Sasuwane and Village Bodni, Alibaug, District Raigad, Maharashtra, September 11, 2012

Project sites for six types of land-use systems of the 13 covered under the Belo Ground Biodiversity (BGBD) project (semi-evergreen forest, traditional home garden, Areca nut-Coconut mixed plantation, Areca nut with annual crop, teak plantation, leguminous cover crop systems), Nilambur, District Mallapuram, Kerala, September 13, 2012

SGP sites at Village Kadavur, District Kozhikode, Kerala, September 16, 2012

ARS Metals Ltd., SIPCOT Industrial Estate, Gummidipoondi, Chennai, Tamil Nadu, September 18, 2012

SGP sites at Village T. S. Pettai, Pichavaram Mangrove Forest Area, Chidambaram, District Cuddalore, Tamil Nadu, September 20, 2012

EDC shops at Thangachimadam (Xavier Nagar), MGR Nagar, Victoria Nagar, District Ramanathapuram, Tamil Nadu, September 22, 2012

Community hall, pay-and-use toilets, Solar fish drier at EDC Federation at Thangachimadam, District Ramanathapuram, Tamil Nadu, September 22, 2012

Village Knowledge Centre, MS Swaminathan Foundation, Victoria Nagar, District Ramanathapuram, Tamil Nadu, September 22, 2012

Marine Interpretation Centre, GOMBRT, Kunthakal, District Ramanathapuram, Tamil Nadu, September 22, 2012

EDC Toni Turai (Glass Bottom Boat), District Ramanathapuram, Tamil Nadu, September 22, 2012

EDC Meeting at village Kunjarvalsai, District Ramanathapuram, Tamil Nadu, September 22, 2012

Anti-poaching watcher shed, Krusadai Island, Core Area, Gulf of Mannar Marine National Park, Ramnathapuram, Tamil Nadu, September 23, 2012

Sathya Hospital and Balaji Laparoscopy Centre (Nursing Vocational Training Centre), District Ramanathapuram, Tamil Nadu, September 24, 2012

Alternate Hydro Energy Centre (AHEC), IIT Roorkee, Roorkee, October 9, 2012

Central Mine Planning & Design Institute Ltd, Gondwana Place, Kanke Road, Ranchi, Jharkhand, October 8, 9 &10, 2012

Central Institute of Mining and Fuel Research, Dhanbad, Jharkhand, October 10, 2012

Project sites at Moonidih Coal Mines, Bharat Coking Coal Limited, Dhanbad District, Jharkhand, October 10, 2012

Shri Shakti Alternative Energy Ltd., Hyderabad, Andhra Pradesh, November 2, 2012

SELCO Solar Light Pvt. Ltd., Bangalore, December 1, 2012

Periyar Foundation, Periyar Tiger Reserve, Thekkady, District Idukki, Kerala, December 3, 2012

Tribal Trekkers'-cum-Guide EDC (Professional Group EDC), Periyar Tiger Reserve, Thekkady, District Idukki, Kerala, December 3, 2012

Vanchivayal EDC, Vellakkadavu range, Periyar National Park Buffer area, Thekkady, District Idukki, Kerala, December 3, 2012

Solang Hydro Electricity Project, A Power Himalayas, Manali, December 3, 2012

Ski Himalayas Centre, Manali, December 3, 2012

HIMURJA meeting, Shimla, December 4, 2012

Punjab Energy Development Agency (PEDA) meeting, Chandigarh, December 5, 2012

Haibowal Biogas Power Plant, Ludhiana, December 6, 2012

Mahendra Sponge & Power Ltd., Raipur, December 19, 2012

Project sites of wind farm projects at Tamil Nadu Newsprint and Papers Limited, Devarakulam, Tirunelveli District, Tamil Nadu, December 17 & 18, 2012

Tamil Nadu Newsprint and Papers Limited, Kagithapuram, Karur District, Tamil Nadu, December 17 & 18, 2012

Chouldhari, South Andaman, Andaman & Nicobar Islands, January 7 & 8, 2013

CARI–Indian Council for Agricultural Research Demonstration Site, Chouldhari, South Andaman, Andaman & Nicobar Islands, January 8, 2013

Annex E. Workshop Participants

E.1 Scoping Workshop

The following stakeholders participated in the Scoping Workshop held April 11, 2012, at Hotel Ambassador, New Delhi.

A. P. Srivastava, National Coordinator, National Agricultural Innovation Project, Indian Council for Agricultural Research, New Delhi

Alexandra Solovieva, Deputy Country Director, New Delhi

Ashwani Sharma, Consultant, Ministry of Environment and Forests, New Delhi

Ayumi Fujino, UNIDO Representative for India and Regional Director for South Asia, New Delhi

B. D. Save, Deputy General Manager, IDBI Bank Limited, Mumbai

Bhavesh Swami, Manager, Media Awareness, Bureau of Energy Efficiency, New Delhi

Bhuwon Sthapit, Regional Project Coordinator, Conservation Specialist, Diversity for Livelihoods Programme, National Agriculture Science Center, New Delhi

C. Thomson Jacob

Chhanda Chowdhury, Director, Ministry of Environment and Forests, New Delhi

Girish Sethi, Director, Industrial Energy Efficiency, The Energy and Resources Institute, New Delhi

Hem Pande, Joint Secretary, MoEF, and GEF Operational Focal Point, Government of India

Kinsuk Mitra, President, InsPIRE Network for Environment, New Delhi

Kirit Parikh, Integrated Research and Action for Development (IRADE), New Delhi

L. M. Palni, Director, G B Pant Institute of Himalayan Environment and Development, Almora

Lianchawii, Programme Analyst, Energy and Environment Unit, UNDP, New Delhi

M. S. Rana, Chief Conservator of Forest & Project Director, Madhya Pradesh Forest Department

M. S. Rathore, Jal Bhagirathi Foundation, Jaipur

Mohammad Aatish Khan, Program Officer, InsPIRE Network for Environment, New Delhi

Nayanika Singh, GEF Consultant, Ministry of Environment and Forests, New Delhi

Neeraj Negi, Senior Evaluation Officer, GEF Evaluation Office, Washington, DC

P. S. Dutt, Chief Scientist and Head Business Development and Technology Transfer Division, CSIR – National Environmental Engineering Research Institute, Nagpur

Prabhjot S. Sodhi, National Coordinator, UNDP/GEF Small Grants India Program, New Delhi

P. Thomas Jacob, Joint Director, Central Power Research Institute, Bangalore

Prem N. Mathur, National Project Manager, Bioversity International, National Agricultural Science Centre, New Delhi

Rajiv Kumar, Deputy General Manager, Energy Efficiency Centre, SIDBI, New Delhi

Rajiv Mishra, Consultant, Ministry of Environment and Forests, New Delhi

S. Balaji, Chief Conservator of Forests & Trust Director, Gulf of Mannar Biosphere Reserve Trust, Ramanathapuram

S. K. Lohia, OSD (MRTS), Ministry of Urban Development, New Delhi

S. V. Govardhan Das, National Project Manager, Bharati Integrated Rural Development Society, Hyderabad

Satya Priya, National Program Coordinator, Land and Water Program, New Delhi

Saurabh Yadav, Knowledge Management Specialist, BEE-GEF-World Bank Program, Bureau of Energy Efficiency (BEE), New Delhi

Srinivasan Iyer, Assistant Country Director and Head, Energy & Environment Unit, UNDP, New Delhi

Sunpreet Kaur, Program Officer, InsPIRE Network for Environment, New Delhi

Suwlar Ramanathun, Deputy Director, Ministry of Environment and Forests, New Delhi

Tonilyn Lim, Industrial Development Officer, Regional Office for South Asia, UNIDO, New Delhi

Vinod B. Mathur, Dean, Faculty of Wildlife Sciences, Wildlife Institute of India, Chandrabani, Dehradun, Uttarakhand

Vishal Agarwal, Energy and Environment Specialist – SME, BEE-GEF-World Bank Program, Bureau of Energy Efficiency (BEE), New Delhi

E.2 National Consultation Workshop

The following stakeholders participated in the National Consultation Workshop held November 7, 2012, at Hotel The Lalit, New Delhi; several other participants whose names are not recorded also participated in the workshop.

Ashwani Sharma, Consultant, Ministry of Environment and Forests, New Delhi

Ayumi Fujino, UNIDO Representative for India and Regional Director for South Asia, New Delhi

Hem Pande, Joint Secretary, MoEF, and GEF Operational Focal Point, Government of India

Kinsuk Mitra, President, InsPIRE Network for Environment, New Delhi

Mohammad Aatish Khan, Program Officer, InsPIRE Network for Environment, New Delhi

Nayanika Singh, GEF Consultant, Ministry of Environment and Forests, New Delhi

Neeraj Negi, Senior Evaluation Officer, GEF Evaluation Office, Washington, DC

Prabhjot S. Sodhi, National Coordinator, UNDP/GEF Small Grants India Program, New Delhi

Anil Arora, Centre for Environment Education, New Delhi

Sunpreet Kaur, Program Officer, InsPIRE Network for Environment, New Delhi

Robert D. van den Berg, Director, GEF Evaluation Office, Washington, DC

Carlo Carugi, Senior Evaluation Officer, GEF Evaluation Office, Washington, DC

S. Balaji, Chief Conservator of Forests & Trust Director, Gulf of Mannar Biosphere Reserve Trust, Ramanathapuram

Klas Sanders, Natural Resource Coordinator, World Bank, Washington, DC

Sudhir Kumar Singh, Energy & Environment Specialist, UNIDO South Asia Regional Office

R. N. Jindal, Additional Director, Ministry of Environment and Forests, Government of India

Anupam Joshi, Senior Environment Specialist, World Bank, New Delhi

Juergen Hierold, UNIDO GEF Coordinator, Vienna

Thomas Paramanandan, Joint Director, DMD, CPRI, Bangalore

Mariyam N. Fuller, UNEP, Nairobi

P. R. K. Sobhan Babu, InsPIRE Network for Environment, New Delhi

Shankar Haldhar, InsPIRE Network for Environment, New Delhi

Veerendra Veer

Deepak Samuel Vijay Kumar

G. R. Viswanath

Ravi Shankar

Svati Bhogle

Ravi Srivastava

Annex F. GEF Portfolio in India, 1991–2012

GEF ID	Project name	Focal area	Type	GEF Agency	GEF phase	Status	GEF grant (million $)	Cofinancing (million $)
		National projects						
10	Biomass Energy for Rural India	CC	FSP	UNDP	GEF-2	I	4.2	4.6
11	Enabling Activity for the Preparation of India's Initial Communication to the UNFCCC	CC	EA	UNDP	GEF-2	C	2.0	0.1
76	Alternate Energy	CC	FSP	WB	Pilot	C	26.0	424.0
84	India Eco-Development	BD	FSP	WB-UNDP	GEF-1	C	20.0	54.0
236	First National Report to the CBD	BD	EA	UNDP	GEF-1	C	0.0	0.0
251	National Biodiversity Strategy and Action Plan	BD	EA	UNDP	GEF-1	C	1.0	1.0
325	Coal Bed Methane Capture and Commercial Utilization	CC	FSP	UNDP	GEF-1	C	9.2	9.8
370	Development of High Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions	CC	FSP	UNDP	Pilot	C	5.5	4.5
383	Selected Options for Stabilizing Greenhouse Gas Emissions for Sustainable Development	CC	EA	UNDP	Pilot	C	1.5	0.1
386	Optimizing Development of Small Hydel Resources in Hilly Areas	CC	FSP	UNDP	Pilot	C	7.5	7.1
404	Energy Efficiency	CC	FSP	WB	GEF-1	C	5.0	32.0
634	Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal Biodiversity	BD	FSP	UNDP	GEF-2	I	7.9	19.1
1156	Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States	BD	FSP	UNDP	GEF-3	I	5.3	6.5
1199	Removal of Barriers to Biomass Power Generation, Part I	CC	FSP	UNDP	GEF-3	I	5.7	33.5
1240	Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector	CC	FSP	UNDP	GEF-3	I	7.0	25.2

GEF ID	Project name	Focal area	Type	GEF Agency	GEF phase	Status	GEF grant	Cofinancing
							million $	
1520	Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)	CH	FSP	UNIDO	GEF-4	C	3.4	7.2
1628	Capacity Building for Implementation of the Cartagena Protocol	BD	MSP	WB	GEF-3	C	1.0	2.1
2216	National Capacity Self-Assessment (NCSA) for Global Environment Management	MF	EA	UNDP	GEF-3	C	0.2	0.1
2444	Biodiversity Conservation and Rural Livelihoods Improvement	BD	FSP	WB	GEF-3	E	8.5	23.9
2500	Energy Conservation in Small Sector Tea Processing Units in South India	CC	MSP	UNDP	GEF-4	I	1.0	1.1
2608	Enabling Activities for Preparing India's Second National Communication to UNFCCC	CC	FSP	UNDP	GEF-3	I	3.8	3.0
2844	Energy Efficiency Improvements in the Indian Brick Industry	CC	MSP	UNDP	GEF-4	I	0.7	2.0
2946	Coal Fired Generation Rehabilitation Project	CC	FSP	WB	GEF-3	I	45.4	258.0
3024	SLEM - Sustainable Participatory Management of Natural Resources to Promote Ecosystem Health and Resilience in the Thar Desert Ecosystem	MF	MSP	UNDP	GEF-4	I	0.9	14.7
3152	Achieving Reduction in GHG Emissions through Advanced Energy Efficiency Technology in Electric Motors	CC	MSP	UNDP	GEF-4	I	0.3	1.1
3241	Sustainable Urban Transport Project	CC	FSP	WB-UNDP	GEF-4	I	23.1	332.7
3468	SLEM/CPP – Institutional Coordination, Policy Outreach and M&E Project under Sustainable Land and Ecosystem Management Partnership Program	LD	MSP	WB	GEF-4	I	1.0	1.0
3469	SLEM/CPP – Sustainable Land Management in Shifting Cultivation Areas of Nagaland for Ecological and Livelihood Security	MF	FSP	UNDP	GEF-4	I	3.6	25.4
3470	SLEM/CPP – Sustainable Rural Livelihood Security through Innovations in Land and Ecosystem Management	MF	FSP	WB	GEF-4	I	7.3	88.0
3471	SLEM/CPP – Sustainable Land Water and Biodiversity Conservation and Management for Improved Livelihoods in Uttarakhand Watershed Sector	MF	FSP	WB	GEF-4	I	7.5	90.0
3472	SLEM/CPP – Integrated Land Use Management to Combat Land Degradation in Madhya Pradesh	MF	FSP	UNDP	GEF-4	I	6.1	95.8
3551	Financing Energy Efficiency at Micro, Small and Medium Enterprises (MSMEs)	CC	FSP	WB	GEF-4	I	11.3	52.3

GEF ID	Project name	Focal area	Type	GEF Agency	GEF phase	Status	GEF grant	Cofinancing
							million $	
3552	Chiller Energy Efficiency Project – under the Programmatic Framework for Energy Efficiency	CC	FSP	WB	GEF-4	I	6.3	93.0
3553	Promoting Energy Efficiency and Renewable Energy in Selected Micro SME Clusters in India – under the Programmatic Framework for Energy Efficiency	CC	FSP	UNIDO	GEF-4	E	7.3	26.3
3554	Improving Energy Efficiency in the Indian Railway System – under the Programmatic Framework for Energy Efficiency	CC	FSP	UNDP	GEF-4	E	5.2	21.0
3555	Energy Efficiency Improvements in Commercial Buildings – under the Programmatic Framework for Energy Efficiency	CC	FSP	UNDP	GEF-4	I	5.3	16.0
3751	Capacity Building on Biosafety for Implementation of the Cartagena Protocol – Phase II under the Biosafety Program	BD	FSP	UNEP	GEF-4	E	2.7	6.0
3775	Environmentally Sound Management and Final Disposal of PCBs in India	CH	FSP	UNIDO	GEF-4	I	14.5	29.7
3801	Strengthening the Implementation of the Biological Diversity Act and Rules with Focus on its Access and Benefit Sharing Provisions	BD	FSP	UNEP	GEF-4	E	3.6	6.4
3803	Environmentally Sound Management of Medical Wastes in India	CH	FSP	UNIDO	GEF-4	E	10.3	30.8
3936	Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Godavari River Estuary in Andhra Pradesh State	BD	FSP	UNDP	GEF-4	I	6.1	18.1
3941	Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Malvan Coast, Maharashtra State	BD	FSP	UNDP	GEF-4	E	3.4	12.0
4134	Market Development and Promotion of Solar Concentrators based Process Heat Applications in India	CC	FSP	UNDP	GEF-4	E	4.5	19.5
4215	Low Carbon Campaign for Commonwealth Games 2010 Delhi	CC	MSP	UNDP	GEF-4	C	1.0	2.7
4536[a]	Climate Resilient Coastal Protection and Management	CC	FSP	ADB	GEF-5	A	1.8	54.7
4612	Development and Promotion of Non-POPs alternatives to DDT	CH	FSP	UNIDO-UNEP	GEF-5	A	10.3	40.0
4673	Preparation of Third National Communication (3NC) to the UNFCCC and Strengthening Institutional and Analytical Capacities on Climate Change	CC	FSP	UNDP	GEF-5	A	7.9	39.7
4743	Developing an effective multiple use management framework for conserving biodiversity in the mountain landscapes of the High Ranges, Western Ghats	BD	FSP	UNDP	GEF-5	A	6.4	30.0

GEF ID	Project name	Focal area	Type	GEF Agency	GEF phase	Status	GEF grant	Cofinancing
							million $	
4788	Promoting Business Models for Increasing Penetration and Scaling up of Solar Energy	CC	FSP	UNIDO	GEF-5	A	4.4	21.8
4893	Promoting Industrial Energy Efficiency through Energy Management Standard, System Optimization and Technology Incubation	CC	FSP	UNIDO	GEF-5	P	4.5	27.4
4901[a]	India: Sustainable Livelihoods and Adaptation to Climate Change (SLACC)	CC	FSP	WB	GEF-5	P	8.0	234.0
4918	Partial Risk Sharing Facility for Energy Efficiency	CC	FSP	WB	GEF-5	P	18.0	594.3
4921	Efficient and Sustainable City Bus Services	CC	FSP	WB	GEF-5	P	9.2	85.0
4927	Facility for Low Carbon Technology Deployment	CC	FSP	WB	GEF-5	P	9.0	59.3
4942	Integrated Biodiversity Conservation and Ecosystem Services Improvement	MF	FSP	WB	GEF-5	P	20.5	115.0
	Regional projects							
385	Asia Least-Cost Greenhouse Gas Abatement Strategy (ALGAS)	CC	EA	UNDP	Pilot	C	9.5	3.5
1252	Bay of Bengal Large Marine Ecosystem	IW	FSP	FAO-WB	GEF-3	I	12.1	18.9
2430	Conservation and Sustainable Use of Cultivated and Wild Tropical Fruit Diversity: Promoting Sustainable Livelihoods, Food Security and Ecosystem Services	BD	FSP	UNEP	GEF-4	I	4.0	7.1
	Global projects							
112	Photovoltaic Market Transformation Initiative	CC	FSP	WB/IFC	GEF-1	C	15.2	90.0
1224	Conservation and Sustainable Management of Below Ground Biodiversity, Phase I	BD	FSP	UNEP	GEF-2	C	5.0	9.0
1340	Promoting Industrial Energy Efficiency through a Cleaner Production/Environmental Management System Framework	CC	MSP	UNEP	GEF-2	C	1.0	1.8
1378	Assessment of Soil Organic Carbon Stocks and Change at National Scales	MF	MSP	UNEP	GEF-2	C	1.0	1.0
1599	Development of a Strategic Market Intervention Approach for Grid-Connected Solar Energy Technologies (EMPower)	CC	MSP	UNEP	GEF-3	C	1.0	1.0
1685	Fuel Cells Financing Initiative for Distributed Generation Applications (Phase 1)	CC	FSP	WB/IFC	GEF-3	I	6.6	9.0
1802	Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury	CH	FSP	UNDP	GEF-3	I	11.1	13.0
2092	Coastal Resilience to Climate Change: Developing a Generalizable Method for Assessing Vulnerability and Adaptation of Mangroves and Associated Ecosystems	BD	MSP	UNEP	GEF-3	C	1.0	1.0

GEF ID	Project name	Focal area	Type	GEF Agency	GEF phase	Status	GEF grant	Cofinancing
							million $	
2123	Conservation & Management of Pollinators for Sustainable Agriculture through an Ecosystem Approach	BD	FSP	UNEP	GEF-4	I	8.5	19.6
2261	Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)	IW	FSP	UNDP	GEF-4	I	6.4	17.7
2342	Conservation and Sustainable Management of Below Ground Biodiversity, Tranche 2	BD	FSP	UNEP	GEF-2	C	4.0	7.4
2939	Solar Water Heating Market Transformation and Strengthening Initiative, Phase 1	CC	FSP	UNDP-UNEP	GEF-3	I	12.0	11.8
3882	Reversing Environmental Degradation and Rural Poverty through Adaptation to Climate Change in Drought Stricken Areas in Southern India: A Hydrological Unit Pilot Project Approach (under India: SLEM)	CC	MSP	FAO	GEF-4	E	0.9	2.9

NOTE: BD = biodiversity; CC = climate change; CH = chemicals; IW = international waters; LD = land degradation; MF = multifocal; EA = enabling activity; IFC = International Finance Corporation; WB = World Bank; A = Council approved; C = closed; E = CEO endorsed; I = under implementation; P = PIF approved. □ = field verified; ■ = ROtI assessment conducted.

a. Funded under the Special Climate Change Fund.

Annex G. SGP Projects Covered by the Evaluation

Project name	Executing NGO	Focal area	Status	SGP grant ($)	Source of funds	Cofinancing ($)
Community – led Biodiversity Conservation of Mangrove Forest Ecosystem in Pitchavaram Institutionalizing Organic Approach in Land up gradation to optimize livelihood of poor families	Centre for Rural Education and Economic Development	BD	C	32,208	GEF SGP	229,173
Promoting renewable energy through Bio-gas units in tribal villages of Gudalur Block of Nilgiri District	Centre for Tribal and Rural Development Trust	CC	I	49,870	RAF	62,392
Bio diversity conservation through apiculture for sustainable livelihood of the poor tribal communities	The Serve India	BD	C	23,477	RAF	19,857
Promotion of Community led approaches towards non-conventional energy & management of land resources to reduce GHG emissions and desertification/deforestation in Kumaon Himalaya (Ranikhet region)	Chatrasal Seva Sansthan	CC	C	17,890	GEF SGP	63,136
Tarikhet Non-Conventional Energy Project	Chatrasal Sewa Sansthan	CC	C	28,200	GEF SGP	31,967

NOTE: BD = biodiversity; CC = climate change. C = completed; I = under implementation.

Annex H. Project Preparation Costs

GEF ID	Project name	GEF project grant (million $)	GEF PDF/ PPG ($)	Total GEF grant (million $)	Preparation cost as % of total GEF grant
	National projects				
10	Biomass Energy for Rural India	4.017	196,000	4.213	4.65
634	Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal BD	7.650	218,000	7.868	2.77
1156	Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States	4.935	345,000	5.280	6.53
1240	Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector	6.750	280,000	7.030	3.98
1520	Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)	3.074	317,000	3.391	9.35
2444	Biodiversity Conservation and Rural Livelihoods Improvement	8.140	330,000	8.470	3.90
2500	Energy Conservation in Small Sector Tea Processing Units in South India	0.950	25,000	0.975	2.56
2608	Enabling activities for Preparing India's Second National Communication to UNFCCC	3.500	349,000	3.849	9.07
2844	Energy Efficiency Improvements in the Indian Brick Industry	0.696	25,000	0.721	3.47
3241	Sustainable Urban Transport Project	22.500	575,000	23.075	2.49
3472	SLEM/CPP – Integrated Land Use Management to Combat LD in Madhya Pradesh	5.763	340,000	6.103	5.57
3553	Promoting Energy Efficiency and Renewable Energy in Selected Micro SME Clusters in India – under the Programmatic Framework for Energy Efficiency	7.173	100,000	7.273	1.37
3554	Improving Energy Efficiency in the Indian Railway System - under the Programmatic Framework for Energy Efficiency	5.200	100,000	5.300	1.89
3555	Energy Efficiency Improvements in Commercial Buildings – under the Programmatic Framework for Energy Efficiency	5.200	90,000	5.290	1.70
3775	Environmentally Sound Management and Final Disposal of PCBs in India	14.100	350,000	14.450	2.42

GEF ID	Project name	GEF project grant (million $)	GEF PDF/ PPG ($)	Total GEF grant (million $)	Preparation cost as % of total GEF grant
3801	Strengthening the Implementation of the Biological Diversity Act and Rules with Focus on its Access and Benefit Sharing Provisions	3.561	50,000	3.611	1.38
3803	Environmentally Sound Management of Medical Wastes in India	10.000	250,000	10.250	2.44
3936	Mainstreaming Coastal and Marine BD Conservation into Production Sectors in the Godavari River Estuary in Andhra Pradesh State	6.024	100,000	6.124	1.63
4134	Market Development and Promotion of Solar Concentrators based Process Heat Applications in India	4.400	100,000	4.500	2.22
4612	Development and Promotion of Non-POPs alternatives to DDT	10.000	330,000	10.330	3.20
4673	Preparation of Third National Communication (3NC) to the UNFCCC and strengthening institutional and analytical capacities on CC	7.680	200,000	7.880	2.54
4743	Developing an effective multiple use management framework for conserving biodiversity in the mountain landscapes of the High Ranges, Western Ghats	6.275	88,600	6.364	1.39
4788	Promoting Business Models for Increasing Penetration and Scaling up of Solar Energy	4.365	80,000	4.445	1.80
Subtotal		151.953	4,838,600	161.792	2.99
	Regional and global projects				
112	Photovoltaic Market Transformation Initiative	30.000	375,000	30.375	1.23
1224	Conservation and Sustainable Management of Below Ground BD, Phase I	5.023	273,000	5.296	5.16
1252	Bay of Bengal Large Marine Ecosystem	12.082	699,800	12.782	5.47
1599	Development of a Strategic Market Intervention Approach for Grid-Connected Solar Energy Technologies (EMPower)	0.975	25,000	1.000	2.50
1685	Fuel Cells Financing Initiative for Distributed Generation Applications (Phase 1)	6.550	25,000	6.575	0.38
1802	Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury	10.326	724,948	11.051	6.56
2092	Coastal Resilience to CC: Developing a Generalizable Method for Assessing Vulnerability and Adaptation of Mangroves and Associated Ecosystems	0.975	25,000	1.000	2.50
2123	Conservation & Management of Pollinators for Sustainable Agriculture through an Ecosystem Approach	7.811	700,000	8.511	8.22
2261	Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)	5.688	699,840	6.388	10.96
2430	Conservation and Sustainable Use of Cultivated and Wild Tropical Fruit Diversity: Promoting Sustainable Livelihoods, Food Security and Ecosystem Services	3.662	326,000	3.988	8.18
2939	Solar Water Heating Market Transformation and Strengthening Initiative, Phase 1	12.000	285,000	12.285	2.32
Subtotal		95.092	4,158,588	99.250	4.20

Annex I. Duration of Activity Cycle

TABLE I.1 **Duration of the Activity Cycle for GEF-Supported Full-Size Projects in India**

		Duration between stages (days)							
GEF ID	Project name	A→B	B→C	C→D	D→E	A→C	B→D	B→E	C→E
10	Biomass Energy for Rural India	0	447	76	0	447	523	523	76
76	Alternate Energy				128		365		
84	India Eco-Development		459	30	115		489	604	145
325	Coal Bed Methane Capture and Commercial Utilization		301	38	0		339	339	38
370	Development of High Rate Bio-Methanation Processes as Means of Reducing Greenhouse Gas Emissions				0		685		
386	Optimizing Development of Small Hydel Resources in Hilly Areas				0		835		
404	Energy Efficiency		124	419	218		543	761	637
634	Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal Biodiversity		612	394	0		1,006	1,006	394
1156	Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States		2830	66	77		2,896	2,973	143
1199	Removal of Barriers to Biomass Power Generation, Part I	380	796	587	0	1,176	1,383	1,383	587
1240	Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector		271	63	0		334	334	63
1520	Development of a National Implementation Plan in India as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs)	1735	84			1,819			60
2444	Biodiversity Conservation and Rural Livelihoods Improvement	882	1,171	39		2,053	1210		
2608	Enabling activities for Preparing India's Second National Communication to UNFCCC	662	253	55	0	915	308	308	55
2946	Coal Fired Generation Rehabilitation Project	292	1,021			1,313			305
3241	Sustainable Urban Transport Project	395	733			1,128			139
3469	SLEM/CPP – Sustainable Land Management in Shifting Cultivation Areas of Nagaland for Ecological and Livelihood Security	60	497	54	0	557	551	551	54
3470	SLEM/CPP – Sustainable Rural Livelihood Security through Innovations in Land and Ecosystem Management	20	614			634			155
3471	SLEM/CPP – Sustainable Land Water and Biodiversity Conservation and Management for Improved Livelihoods in Uttarakhand Watershed Sector	51	268	53	104	319	321	425	157
3472	SLEM/CPP – Integrated Land Use Management to Combat Land Degradation in Madhya Pradesh	117	360	300	366	477	660	1,026	666

GEF ID	Project name	Duration between stages (days)							
		A→B	B→C	C→D	D→E	A→C	B→D	B→E	C→E
3551	Financing Energy Efficiency at Micro, Small and Medium Enterprises (MSMEs)	335	539	–20	153	874	519	672	133
3552	Chiller Energy Efficiency Project – under the Programmatic Framework for Energy Efficiency	164	375			539			200
3553	Promoting Energy Efficiency and Renewable Energy in Selected Micro SME Clusters in India – under the Programmatic Framework for Energy Efficiency		735						
3554	Improving Energy Efficiency in the Indian Railway System – under the Programmatic Framework for Energy Efficiency	442	813			1,255			
3555	Energy Efficiency Improvements in Commercial Buildings – under the Programmatic Framework for Energy Efficiency	441	772			1,213			
3751	Capacity Building on Biosafety for Implementation of the Cartagena Protocol – Phase II under the Biosafety Program	151	934			1,085			
3775	Environmentally Sound Management and Final Disposal of PCBs in India	141	338	13	5	479	351	356	18
3801	Strengthening the Implementation of the Biological Diversity Act and Rules with Focus on its Access and Benefit Sharing Provisions	285	639			924			
3803	Environmentally Sound Management of Medical Wastes in India	631	472			1,103			
3936	Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Godavari River Estuary in Andhra Pradesh State	82	636	–142	273	718	494	767	131
3941	Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Malvan Coast, Maharashtra State	223	246			469			
4134	Market Development and Promotion of Solar Concentrators based Process Heat Applications in India	171	645	–174		816	471		
4536	Climate Resilient Coastal Protection and Management	183							
4612	Development and Promotion of Non-POPs alternatives to DDT	183							
4673	Preparation of Third National Communication (3NC) to the UNFCCC and Strengthening Institutional and Analytical Capacities on Climate Change								
4743	Developing an effective multiple use management framework for conserving biodiversity in the mountain landscapes of the High Ranges, Western Ghats	91							
4788	Promoting Business Models for Increasing Penetration and Scaling up of Solar Energy	75					14		
	Average time taken (days)	315.08	620.17	108.88	79.94	923.32	680.81	801.87	207.80
	Average time taken (years)	0.86	1.70	0.30	0.22	2.53	1.87	2.20	0.57

NOTE: A = entry into GEF pipeline; B = approval by Council/work program inclusion; C = GEF CEO endorsement; D = Agency approval; E = project start-up. Values presented as negative numbers indicate that Agency approval occurred before GEF CEO endorsement (usual practice is that Agency approval occurs after CEO endorsement).

TABLE I.2 Duration of the Activity Cycle for GEF-Supported Medium-Size Projects in India

GEF ID	Project name	Duration between stages (days)							
		A→B	B→C	C→D	D→E	A→C	B→D	B→E	C→E
1628	Capacity Building for Implementation of the Cartagena Protocol	477	34	34		511		68	
2500	Energy Conservation in Small Sector Tea Processing Units in South India	796	23			819			208
2844	Energy Efficiency Improvements in the Indian Brick Industry					936	1,374		438
3024	SLEM – Sustainable Participatory Management of Natural Resources to Promote Ecosystem Health and Resilience in the Thar Desert Ecosystem					1428	1,667		239
3152	Achieving Reduction in GHG Emissions through Advanced Energy Efficiency Technology in Electric Motors			148	0	728			148
3468	SLEM/CPP – Institutional Coordination, Policy Outreach and M & E Project under Sustainable Land and Ecosystem Management Partnership Program				60			273	
4215	Low Carbon Campaign for Commonwealth Games 2010 Delhi	47	127	2	6	174	182		8
	Average time taken (days)	440.00	61.33	61.33	22.00	766.00	1,074.33	170.50	208.20
	Average time taken (years)	1.21	0.17	0.17	0.06	2.10	2.94	0.47	0.57

NOTE: A = entry into GEF pipeline; B = approval by Council/work program inclusion; C = GEF CEO endorsement; D = Agency approval; E = project start-up.

TABLE I.3 Duration of the Activity Cycle for GEF-Supported Enabling Activities in India

GEF ID	Project name	Duration between stages (days)					
		A→B	B→C	C→D	D→E	B→D	B→E
11	Enabling Activity for the Preparation of India's Initial Communication to the UNFCCC		219	72	0	291	291
236	First National Report to the CBD			63	0		
251	National Biodiversity Strategy and Action Plan		301	134	0	435	435
383	Selected Options for Stabilizing Greenhouse Gas Emissions for Sustainable Development		1,809	51	0	1,860	1,860
2216	National Capacity Self-Assessment (NCSA) for Global Environment Management						
	Average time taken (days)		776.33	80.00	0.00	862.00	862.00
	Average time taken (years)		2.13	0.22	0.00	2.36	2.36

NOTE: A = entry into GEF pipeline; B = approval by Council/work program inclusion; C = GEF CEO endorsement; D = Agency approval; E = project start-up.

Annex J. Country Response

शशि शेखर
SHASHI SHEKHAR, IAS

सत्यमेव जयते

अपर सचिव
पर्यावरण एवं वन मंत्रालय
(भारत सरकार)
Additional Secretary
Ministry of Environment and Forests
(Government of India)

D. O. No. 4 (1)/8/2011 – IC (GEF)

Dated: 11th July 2013

Dear Mr Berg,

This is with reference to the email from GEF EO (dated: 1st July 2013) sharing the final version of India Country Portfolio Evaluation report with us for comments.

The final version of the report and the audit trail has been reviewed. Our earlier comments have been duly incorporated in this version of the report. We concur with this version of the report.

Regards.

Yours sincerely,

(Shashi Shekhar) 11/7/13

Mr Robert van den Berg
Director
GEF Evaluation Office
Washington DC

जहाँ है हरियाली।
वहाँ है खुशहाली।।

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Annex K. Statement by the Quality Assurance Panel

The quality assurance panel for the GEF's India Country Portfolio Evaluation (India CPE) confirms that it has reviewed the evaluation products and the process at several stages of the evaluation. Its feedback to the evaluation team on quality of evaluation products and processes was adequately addressed. In the opinion of the panel:

- India CPE report has satisfactorily addressed the terms of reference for the evaluation.
- The evaluation used an appropriate methodological approach and tools, consistent with the needs of the evaluation.
- The evaluation report has adequately addressed the feedback received from the national stakeholders.
- The evaluation findings and conclusions are fair and reflective of the evidence gathered during the evaluation.
- The recommendations of the evaluation are based on the findings and conclusions that emerge from the evaluative work undertaken during the course of the India CPE.

Dr. Kirit Parikh Dr. Vinod Mathur

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