GEF Country Portfolio Evaluation: Madagascar (1994–2007)

OCTOBER 2008

Conclusions et recommandations en français.

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GEF Country Portfolio Evaluation: Madagascar (1994–2007)

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

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Director of the GEF Evaluation Office: Robert D. van den Berg
Task Manager: Lee Alexander Risby, Evaluation Officer, GEF Evaluation Office
Evaluation Team: Christian Chatelain, Timothy Healy, and Alain Randriamaherisoa, consultants

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Avant-propos

Le présent rapport est le sixième d'une série d'examens de portefeuilles-pays (EPP) réalisés par le Bureau de l'évaluation du Fonds pour l'environnement mondial (FEM). Ces évaluations portent sur la totalité de l'aide du FEM au niveau d'un pays, tous programmes et Entités d'exécution confondus. Globalement, ces études visent à : 1) évaluer dans quelle mesure les activités financées par le FEM s'inscrivent dans le cadre des stratégies et priorités nationales et des grands défis écologiques au coeur de la mission de l'institution ; 2) évaluer le mode d'exécution et les résultats des activités financées par le FEM.

Les examens de portefeuilles-pays sont réalisés de manière indépendante par le Bureau de l'évaluation, si possible en partenariat avec les bureaux de l'évaluation des Entités d'exécution du FEM, les administrations nationales et les organisations non gouvernementales.

La présente évaluation fait partie d'une série d'examens de portefeuilles-pays qui portent sur l'aide que le FEM apporte à l'Afrique subsaharienne. Plusieurs critères ont présidé au choix de Madagascar, notamment sa longue association avec le FEM, son statut de réserve mondiale de biodiversité, le rôle du secteur de l'environnement dans son programme de développement durable, en particulier à travers la mise en œuvre de son programme environnemental, et le volume important des ressources qui sont allouées à la préservation de sa biodiversité au titre du Dispositif d'allocation des ressources.

Nous sommes parvenus à la conclusion que le FEM contribuait de manière positive à la préservation de la biodiversité d'importance mondiale qu'abrite le pays. L'action du Fonds a plus particulièrement permis d'accroître la superficie et la portée des aires protégées et a ralenti le déboisement dans ces zones. Elle a également permis à Madagascar de s'attaquer à d'autres questions environnementales telles que les polluants organiques persistants, l'atténuation du risque climatique et les mesures d'adaptation, et la dégradation des sols. En outre, l'aide du FEM correspond bien au caractère mondial du mandat de l'institution. Malgré ces aspects positifs, nous avons mis en lumière l'existence de plusieurs problèmes, à commencer par l'implication insuffisante du gouvernement dans le programme environnemental et les risques liés à la viabilité financière, institutionnelle et socioéconomique du secteur de l'environnement.

Le premier Rapport d'examen annuel de portefeuilles pays 2008 présente les principaux conclusions et recommandations des évaluations faites au Benin, Madagascar, et Afrique du Sud. L'examen annuel, qui a été discute au Conseil du FEM en avril 2008, est publie séparément (rapport d'évaluation No. 44).

Le résumé de l'évaluation de porte-feuilles-pays réalisé au Madagascar, a été mis à la disposition

du Conseil comme un document d'information. Pendant les discussions au cours des réunions du mois d'Avril 2008, le Conseil a fait référence aux conclusions des examens du portefeuille-pays au Bénin, au Madagascar et en Afrique du Sud. Cela a été un signe très positif parce que les évaluations ont apportés au Conseil des informations pertinentes pour des futures discussions.

Les conclusions de l'évaluation ont été discutées en Antanarivo dans un atelier de consultation avec un large éventail des parties prenantes nationales en Février 25, 2008. Je voudrais remercier le Gouvernement de Madagascar et tous les participants pour leur intérêt dans l'évaluation et leur support au Bureau de l'Evaluation.

Rob van den Berg
Directeur du Bureau de l'évaluation

Remerciements

Le présent rapport a été préparé sous la direction de Lee Alexander Risby, chargé d'évaluation au Bureau de l'évaluation du FEM, par une équipe constituée de trois consultants : Christian Chatelain, Timothy Healy, et Alain Randriamaherisoa.

L'administration malgache, en particulier les services du ministère de l'Environnement, des Eaux et Forêts et du Tourisme, a été très coopérative et a participé activement à la présente évaluation. Nous remercions aussi Richard Lewis du Durrell Wildlife Trust, Agnes Joignerez de Aquaterre Ltd, et Maria Cruz Gonzalez et Patricia Lantosoa Ramarojaona du Programme des Nations Unies pour le développement pour les avis et le soutien logistique qu'ils ont fournis.

Une version préliminaire du document a été présentée à Antananarivo le 25 février 2008 aux différents intervenants, à savoir, notamment, les représentants du gouvernement, les Entités d'exécution du FEM, les organisations non gouvernementales et les autres acteurs de la société civile. Des avis très constructifs ont été reçus et intégrés à notre rapport. Le Bureau de l'évaluation assume l'entière responsabilité du contenu du présent document.

1. Principales conclusions et recommandations

Le chapitre 1 présente les conclusions de l'examen du portefeuille du Fonds pour l'environnement mondial (FEM) à Madagascar réalisé par le Bureau de l'évaluation et reprend les recommandations à l'adresse du Conseil du FEM, du gouvernement et des Entités d'exécution du FEM. Les conclusions portent sur trois aspects : pertinence de l'aide du FEM, résultats et efficacité, et efficacité par rapport aux coûts.

Achevée entre novembre 2007 et février 2008, l'évaluation est l'un des quatre examens de portefeuilles-pays réalisés en Afrique par le Bureau de l'évaluation du FEM durant la même période (les trois autres ont été conduits en Afrique du Sud, au Bénin et au Cameroun).

L'examen portait sur dix projets nationaux et sur les composantes « Madagascar » de huit des 13 projets régionaux auxquels le pays participe (les autres projets régionaux et leurs résultats n'entrent pas dans le cadre de la présente évaluation). Les observations que les différents acteurs ont présentées par écrit et lors de l'atelier de consultation du 25 février 2008 ont été prises en compte dans la version finale des conclusions et des recommandations de l'évaluation.

1.1 Contexte

Madagascar fait partie du FEM depuis 1994, époque à laquelle le Fonds a fourni un financement à l'appui de la seconde phase du Programme environnemental mené en application du Programme national d'action environnementale. Depuis lors, Madagascar a pris part à neuf autres projets nationaux auxquels le FEM a contribué à hauteur de quasiment 36 millions de dollars au total. Comme l'illustre le tableau ci-après, environ 97 % du financement du FEM a servi à appuyer des projets dans le domaine d'intervention « diversité biologique », le solde se répartissant à parts presque égales entre les domaines d'intervention « changements climatiques » et « polluants organiques persistants ». Il n'existe aucun projet national dans les domaines de la lutte contre la dégradation des sols et des eaux internationales. Madagascar participe toutefois à 13 projets régionaux sur les eaux internationales, la dégradation des sols, les polluants organiques persistants et la biodiversité.

Dans la logique du cadre de référence et de l'objet général des examens de portefeuilles-pays du

Tableau 1.1

Aide du FEM à Madagascar par domaine d'intervention, 1994–2007

	Financement	
Domaine d'intervention	USD M	% du total
Diversité biologique	34.925	97.0
Changements climatiques	0.550	1.5
POP	0.500	1.5
Total	35.975	100.0

FEM, les objectifs particuliers de l'évaluation de l'aide du FEM à Madagascar étaient les suivants :

- évaluer l'efficacité et les résultats de l'ensemble des projets achevés et en cours dans chaque domaine d'intervention ;
- évaluer de façon indépendante la pertinence et l'efficacité de l'aide du FEM sous les angles suivants : dispositifs nationaux et mécanismes de décision dans le domaine de l'environnement ; mandat du FEM et effets positifs sur l'environnement mondial ; et politiques et procédures du FEM ;
- partager les réactions et les acquis avec : le Conseil du FEM dans le cadre de son mécanisme de décision sur l'allocation des ressources et l'élaboration des politiques et des stratégies ; le pays du point de vue de son association avec le FEM ; et les Entités d'exécution et les organisations chargées de l'élaboration et de la mise en œuvre des projets financés par le FEM.

Madagascar a été retenue notamment pour les raisons suivantes : la taille du portefeuille du pays ; le rôle du secteur de l'environnement dans le programme de développement durable et notamment l'approche-programme appliquée au programme environnemental ; la large place de la biodiversité et du dispositif d'aires protégées dans le portefeuille ; l'importance des ressources affectées à la biodiversité dans le cadre du Dispositif d'allocation des ressources (DAR) ; et le rôle du pays en tant que zone ultrasensible pour la préservation de la biodiversité.

1.2 Méthodologie

L'examen du portefeuille de Madagascar a été réalisé par le personnel du Bureau de l'évaluation du FEM et trois consultants basés en France et à Madagascar. La méthodologie incluait une série de composantes combinant des méthodes de collecte de données qualitatives et quantitatives et des outils normalisés d'analyse. Des documents de différentes sources (projets, gouvernement, société civile, Entités d'exécution du FEM, etc.) ont été utilisés pour jeter les bases de l'évaluation. La qualité de ces documents a été préalablement examinée. Pour l'analyse quantitative, des indicateurs ont servi à évaluer l'efficacité de l'aide du FEM, les projets étant pris comme unités d'analyse (délais et coûts de préparation et d'exécution des projets, par exemple). Nous avons utilisé des outils et protocoles types que nous avons adaptés au contexte de Madagascar. Un certain nombre de projets ont été sélectionnés pour des visites de site selon des critères d'achèvement, d'approches utilisées pour le projet ou pour ses composantes, et d'accessibilité.

Notre évaluation porte essentiellement sur dix projets « nationaux », c'est-à-dire exécutés sur le territoire malgache, et huit projets régionaux auxquels le pays participe activement, dont quatre sur les eaux internationales. L'évaluation complète de la pertinence des résultats et de l'efficacité des projets régionaux par rapport à leurs coûts sort du cadre du présent examen de portefeuille-pays, qui n'analyse que les composantes malgaches. Les projets nationaux et régionaux en cours de préparation ont été exclus de cette évaluation.

La réalisation des EPP en général et de celui de Madagascar en particulier est limitée par plusieurs facteurs :

- L'examen du portefeuille-pays est un exercice difficile car les projets du FEM ne s'organise pas autour d'un programme national assorti d'objectifs, d'indicateurs et de cibles pour mesurer les résultats attendus ;
- Il est difficile d'isoler les résultats directement attribuables au FEM. Nous n'avons donc pas cherché à attribuer au FEM l'impact de certaines

activités sur le développement, mais d'examiner la contribution du Fonds aux résultats pris dans leur ensemble ;

- L'évaluation des résultats est axée, dans la mesure du possible, sur les effets et les impacts plutôt que sur les produits ;
- l'évaluation des impacts des initiatives financées par le FEM n'est pas un processus simple : de nombreux projets ne précisent pas clairement ou suffisamment les impacts ni même parfois les effets attendus. La présente évaluation se limitant à des sources de données secondaires, il n'a pas été possible de rassembler des données primaires pour compléter les rapports de projet ou mettre en évidence les impacts ou les effets des activités ;
- Les résultats dont il est fait état proviennent de diverses sources ; certains découlent d'une évaluation externe et d'autres sont tirés de rapports de projet et d'entrevues internes ;
- Nous avons fait beaucoup d'efforts pour rassembler un ensemble de données claires et fiables sur les projets et les documents qui y sont liés ; les données disponibles, notamment la liste des projets du portefeuille du FEM, sont divergentes, incomplètes et disparates ;
- L'évaluation a été réalisée dans un délai très bref, quatre mois, pour tenir compte des nouvelles dates de la réunion du Conseil du FEM.

1.3 Conclusions

Résultats et efficacité du portefeuille

Conclusion n° 1 : L'appui du FEM a permis d'obtenir des résultats appréciables dans le domaine de la préservation de la biodiversité.

L'appui du FEM dans le domaine d'intervention « Diversité biologique » a eu des effets positifs appréciables sur l'environnement mondial. Il a notamment permis d'accroître la superficie et la portée du réseau d'aires protégées, qui est passé de 21 à 46 réserves. Il a également contribué à ralentir le déboisement de ces zones.

L'appui du FEM a facilité la mise en œuvre du Plan national d'action environnemental, ce qui a permis :

- de sensibiliser les gouvernants aux questions environnementales ;
- de mettre en place des institutions nationales chargées de la préservation de la biodiversité et d'autres questions environnementales ;
- d'élargir le dispositif national d'aires protégées, conformément à la Vision Durban, en s'appuyant sur une procédure unique et une base juridique simplifiée – le Système d'Aires Protégées de Madagascar (SAPM) – pour créer de nouvelles catégories de zones protégées et permettre une plus grande participation des populations locales et du secteur privé.

Notamment, le FEM appuie le premier exemple malgache de gestion durable d'aires protégées par les populations locales, qui couvre 50 000 hectares du couloir forestier d'Anjozorobe. Cette expérience est maintenant reproduite à plus grande échelle.

L'appui que le FEM apporte aux activités habilitantes dans le domaine de la biodiversité a aidé les autorités malgaches à établir des priorités et créer de nouvelles aires protégées, conformément à la Vision Durban et au SAPM, particulièrement dans les zones marines et côtières jusqu'alors sous-représentées.

Conclusion n° 2 : Le FEM aide Madagascar à relever d'autres défis écologiques.

L'appui du FEM permet aux autorités malgaches et aux autres acteurs concernés de s'attaquer à un plus large éventail de problèmes écologiques nationaux et mondiaux, qui dépasse le cadre

bien établi de la préservation de la biodiversité. Les ressources du FEM ont surtout été utilisées pour jeter les bases permettant à Madagascar de s'attaquer à des questions écologiques de portée mondiale grâce à des activités habilitantes dans les domaines des polluants organiques persistants, de l'atténuation du risque climatique et des mesures d'adaptation, et de la dégradation des sols. Il est notamment à signaler que le Plan d'action national d'adaptation adopté par le gouvernement a déterminé les priorités nationales et les domaines d'intervention futurs.

Dans le domaine d'intervention « eaux internationales », le FEM a principalement appuyé la coordination de l'action du pays avec celle d'autres États d'Afrique australe et de l'océan Indien sur la question de la pollution par les hydrocarbures. Ce partenariat a permis de renforcer les capacités et l'infrastructure des principaux ports de Madagascar. La viabilité des investissements est assurée par un système d'imposition. De nouveaux projets sont en cours dans ce domaine d'intervention. Ayant pour but de réduire les polluants d'origine terrestre, d'améliorer la navigation et de gérer les ressources halieutiques, ils sont susceptibles de se traduire par des résultats importants. D'autres projets sont sur le point de démarrer dans le domaine d'intervention « dégradation des sols ».

Conclusion n° 3 : La faible viabilité financière, institutionnelle et socioéconomique compromet les résultats du portefeuille du FEM.

Bien que les bailleurs de fonds aient investi plus de 400 millions de dollars dans le secteur de l'environnement depuis 1990, y compris les apports du FEM à hauteur de près de 36 millions de dollars, la viabilité financière, institutionnelle et socioéconomique demeure le grand défi à relever, particulièrement en ce qui concerne le PE qui amorce sa dernière phase.

Les bailleurs de fonds, y compris le FEM, n'étant pas parvenus à faire émerger un dispositif de gestion durable des aires protégées, la **viabilité financière du PE** est insuffisante. Peu d'aires protégées sont en mesure de financer les opérations qui s'y rapportent grâce aux droits d'entrée et/ou aux recettes touristiques. Les autorités malgaches, la Banque mondiale, les ONG internationales et le FEM, par ses financements dans le cadre du DAR, mettent sur pied un mécanisme de fonds fiduciaire qui apportera un soutien à long terme au réseau d'aires protégées. Ce mécanisme laisse bien augurer d'un règlement du problème de viabilité financière.

Le renforcement de la **viabilité institutionnelle** en vue d'une gestion efficace de la biodiversité et des ressources environnementales est un problème qui se pose depuis le lancement du PE. Malgré l'importance des concours financiers et techniques des bailleurs de fonds, la viabilité institutionnelle demeure faible. Nous avons mis en lumière les aspects suivants :

- La viabilité d'une institution repose souvent sur un éventail de capacités aux niveaux local, régional et national, et sur des sources de financement durables, provenant de recettes propres ou de crédits budgétaires. Bon nombre des institutions intervenant actuellement dans le secteur de l'environnement à Madagascar ne répondent pas à ces critères. Elles ne sont donc pas viables sans les concours des bailleurs de fonds.
- Aux niveaux individuel et institutionnel, les capacités demeurent inégales et dispersées. Les faiblesses du ministère de l'Environnement, des Eaux et Forêts et du Tourisme aux niveaux national et local font que d'autres institutions à

vocation environnementale sont les bénéficiaires d'une grande partie des financements et de l'assistance technique fournis par les bailleurs de fonds. La décentralisation est à l'origine de certains des obstacles dus au manque de capacités institutionnelles. En effet, les représentants du ministère sur le terrain ne possèdent pas les compétences nécessaires pour jouer un rôle important dans la gestion de l'environnement aux niveaux des administrations et des populations locales.

- La complexité des fonctions et des attributions des institutions intervenant dans le PE II et le PE III compromet la communication et le transfert du savoir entre ces institutions.

Pour ce qui est de la viabilité socioéconomique, le PE II et le PE III ont constamment insisté sur la nécessité de concilier l'objectif de préservation de la biodiversité avec celui d'amélioration des moyens de subsistance des populations locales. La promotion de la gestion forestière de proximité et de microprojets pour améliorer les moyens de subsistance a permis d'enregistrer certains succès, allégeant la pression exercée sur les aires protégées mais, dans l'ensemble, les résultats sont disparates et leur viabilité est limitée. Plus récemment, une composante du PE exécutée par le Programme des Nations Unies pour l'environnement et le FEM a également tenté de concilier les objectifs de protection de la biodiversité et d'amélioration des moyens de subsistance des populations locales ; les résultats et la viabilité de cette démarche ne se sont pas encore matérialisés.

Les évaluations indépendantes du PE I et du PE II entreprises par la Banque mondiale en 1997 et 2000 montrent que le programme a eu du mal à prendre en compte les pressions anthropiques liées au développement rural, aux mauvaises techniques agricoles et à la pauvreté, et à résoudre ces problèmes qui menacent la biodiversité. Au bout du compte, ce sont les populations locales vivant à la périphérie des aires protégées qui, n'ayant plus accès aux ressources, paient le prix de l'amélioration de l'état de l'environnement de la planète. Pour le moment, on ne cherche pas assez à établir de liens entre la préservation de la biodiversité et le développement rural et agricole dans le cadre d'une démarche cohérente fournissant des incitations à préserver la biodiversité.

Pertinence du portefeuille

Conclusion n° 4 : Le portefeuille du FEM à Madagascar correspond bien aux priorités et stratégies nationales. L'appui de l'institution cadre bien avec l'objectif d'amélioration de l'environnement au niveau mondial, la priorité sur le terrain étant accordée à la biodiversité.

L'appui du FEM cadre bien avec les priorités et stratégies nationales telles que le Plan national d'action environnementale (PNAE) et la Stratégie nationale de réduction de la pauvreté, dont il concourt pleinement à la mise en œuvre. Le bien-fondé de cette aide se voit confirmé par la « Vision Durban » (le Gouvernement malgache a prévu en 2003 de porter la superficie des aires protégées à 10 % du territoire national) et par le Plan d'action de Madagascar (PAM) 2007-2012, dont au moins deux des huit engagements concernent spécifiquement l'environnement. Le portefeuille du FEM porte surtout sur la préservation de la biodiversité, dans le droit fil du riche patrimoine malgache de ressources écologiques à caractère mondial. Jusqu'à une date récente, l'accent était exclusivement mis sur la biodiversité terrestre. La mise en œuvre de la Vision Durban permet aujourd'hui aux autorités malgaches de commencer à élargir la portée du réseau d'aires protégées aux ressources côtières et marines. La prise de conscience des menaces résultant du risque climatique permet aussi d'investir dans les synergies entre l'adaptation

à la modification du climat, la préservation de la biodiversité et la dégradation des sols.

Conclusion nº 5 : L'appropriation des projets par le pays et la capacité à susciter cette adhésion restent des défis majeurs pour les autorités malgaches et les bailleurs de fonds.

L'évaluation montre que l'adhésion des autorités malgaches aux interventions financées par le FEM n'est pas aussi solide qu'elle devrait l'être, particulièrement en ce qui concerne le programme environnemental (PE). Ainsi, bien que découlant du Plan national d'action environnementale (PNAE) qui a été adopté par les pouvoirs publics, ce programme est en grande partie piloté par les Entités d'exécution du FEM et les bailleurs d'aide bilatérale, qui expliquent cette situation par un manque de capacités et d'initiative de la part du ministère de l'Environnement, des Eaux et Forêts et du Tourisme.

Le taux élevé de renouvellement du personnel de ce ministère, aussi bien au niveau du ministre (point focal politique du FEM) que du secrétaire général (point focal technique du FEM) ne permet pas un leadership stable et clair sur les questions touchant le FEM ou le secteur de l'environnement dans son ensemble.

Au cours de ses différentes phases, le PE a créé de nombreuses institutions (dont l'Association nationale de gestion des aires protégées, l'Office national de l'environnement, le Service d'appui à la gestion de l'environnement, et l'unité de coordination du programme), ce qui a aggravé les problèmes de leadership et de capacités aux niveaux national et local. La prolifération des institutions a entraîné une dispersion des rôles, créant un manque de clarté, une coordination imparfaite et un paysage institutionnel complexe. Bien que chacune de ces institutions soit chargée de composantes spécifiques du PE, les rapports hiérarchiques et les attributions ne sont pas clairs. Cette démultiplication a été soutenue par les Entités d'exécution du FEM et reflète le manque de confiance de certains bailleurs de fonds à l'égard du ministère de l'Environnement, des Eaux et Forêts et du Tourisme.

Le projet du couloir forestier d'Anjozorobe qui a été monté et exécuté par Fanamby, la plus grande organisation non gouvernementale (ONG) dans le secteur de l'environnement à Madagascar, offre un contraste saisissant avec ce qui précède. Dans ce projet, l'appropriation et l'engagement sont forts tant au plan interne, par la stratégie de préservation de la biodiversité qui cadre parfaitement avec celle du FEM, qu'au plan externe, du fait de la participation des populations et des administrations locales. L'appropriation de ce projet est le fruit de l'implication continue des différents acteurs dans sa conception et sa mise en œuvre. La qualité de la stratégie de communication et la forte présence de Fanamby sur le terrain ont également contribué à susciter cette appropriation.

Efficacité par rapport aux coûts

Conclusion nº 6 : La complexité et l'inefficacité du cycle des activités du FEM sont des obstacles à l'élaboration des projets.

La majorité des acteurs interviewés (autorités malgaches, Entités d'exécution et ONG) ont exprimé des points de vue négatifs sur le cycle des activités du FEM. Ils ont notamment relevé les lenteurs, les coûts de transaction élevés en termes de ressources financières et humaines, et le manque de précision et d'information sur les raisons des retards. Ce sentiment, qui résulte principalement du fonctionnement du cycle de projets qui était en vigueur jusqu'à une date récente, confirme les constatations de l'évaluation conjointe du cycle des activités du FEM[1]. Le défi pour le FEM consiste maintenant à démontrer que le nouveau cycle des projets qui a été adopté récemment ne présentera pas les mêmes lacunes.

Conclusion nº 7 : Les fonctions et attributions des parties prenantes aux projets sont floues, la coordination est insuffisante.

Le paysage institutionnel de Madagascar est complexe, du fait de l'éclatement des fonctions et attributions des acteurs concernés. Cette situation entraîne de nombreux problèmes de communication, de coordination et de transfert du savoir. Il ne s'agit pas d'un problème nouveau dans le pays. Les évaluations indépendantes du PE I et du PE II réalisées par la Banque mondiale en 1997 et 2000 font toutes deux ressortir le manque de clarté au sujet des fonctions et des attributions, depuis le niveau national (ministère) jusqu'au niveau le plus bas, celui des populations locales. Ainsi, les points focaux de plusieurs projets régionaux sur les eaux internationales sont actuellement basés dans des institutions non spécialisées dans ce domaine d'intervention et qui travaillent très peu avec les ministères sectoriels plus compétents en la matière. Cette situation est loin d'être idéale

Le grand nombre de parties prenantes au programme environnemental de Madagascar rend la coordination difficile. Jusqu'à présent, les tentatives faites pour régler ce problème ont donné des résultats mitigés. Lors de nos entretiens, de multiples bailleurs de fonds, hauts fonctionnaires malgaches et ONG internationales ont souligné ce problème permanent de manque de coordination en termes de synergies entre les activités financées par les bailleurs de fonds et les activités interministérielles, les systèmes de suivi et d'évaluation, et les mécanismes de remontée de l'information qui en découle. Plus récemment, les bailleurs de fonds et les autorités malgaches ont essayé de relever ces défis en créant un comité directeur comprenant des représentants des bailleurs de fonds et de l'administration, mais celui-ci ne se réunit pas régulièrement et passe pour être sous l'emprise des bailleurs de fonds. Cette situation est attribuable à la faiblesse institutionnelle du ministère et au taux élevé de renouvellement du personnel.

Conclusion nº 8 : Le mécanisme de point focal du FEM dans le pays ne disposant pas de moyens suffisant, il ne peut être opérationnel.

Le point focal technique n'a pas les ressources et le temps qu'il faut pour élaborer et superviser le portefeuille du FEM comme il se doit. Par ailleurs, la continuité institutionnelle fait défaut, le point focal technique ayant changé 11 fois en dix ans et quatre fois au cours des quatre dernières années.

En outre, Madagascar a besoin d'un comité national stable, pouvant programmer les ressources du DAR de façon stratégique et assurer la coordination sur les questions environnementales hors projet ou hors programme. Un comité s'est réuni par le passé, mais de façon ponctuelle et mal organisée.

Conclusion nº 9 : En raison du manque de suivi et d'évaluation, la gestion du savoir et la prise en compte des enseignements tirés des projets ne sont pas systématiques.

À Madagascar, il n'existe pas de mécanisme bien établi de transfert des acquis et du savoir ni entre les projets et les programmes du FEM, ni entre ces activités et les programmes environnementaux des autres bailleurs de fonds et des ONG internationales. La faiblesse du suivi et de l'évaluation ne permet pas de mettre en évidence les causes du succès ou de l'échec d'une opération donnée. À défaut d'amélioration sur ce plan, la gestion du savoir résultant des enseignements tirés des projets et des méthodes de référence restera approximative.

1.4 Recommandations

À l'adresse du Conseil du FEM

Recommandation n°1 : Envisager de promouvoir davantage la formule des fonds fiduciaires pour mieux inscrire l'amélioration de l'environnement mondial dans la durée.

Les faiblesses de la viabilité financière constituent un problème fréquent associé aux interventions fondées sur des projets. Dans les années 90, le FEM a soutenu la formule des fonds fiduciaires pour assurer la viabilité à long terme des aires protégées, après l'achèvement des projets. L'évaluation récente de l'impact du fonds fiduciaire de Bwindi–Mgahinga a confirmé l'efficacité de cette manière de procéder pour l'accroissement et le maintien des capacités de gestion, des coûts récurrents et des mesures incitatives proposées aux populations locales. Le Conseil devrait envisager d'accorder à nouveau la priorité aux fonds fiduciaires afin de pérenniser les gains réalisés dans le domaine de l'environnement mondial.

Recommandation n°2 : Élaborer une stratégie pour améliorer la capacité à faire face aux problèmes environnementaux à caractère mondial dans les pays les moins avancés.

Cette entreprise pourrait comprendre plusieurs volets, à savoir :

- renforcer le mécanisme de point focal du FEM pour qu'il fonctionne bien ;
- élaborer une méthode de coordination stratégique intégrée et efficace du partenariat et du cofinancement ;
- favoriser la création d'un partenariat afin d'accroître la mobilisation des ressources destinées à la mise en œuvre des conventions internationales en rapport avec le FEM, en particulier pour les pays les moins avancés ;
- favoriser l'intégration, la coordination et la concertation efficaces et stratégiques entre les acteurs dans le domaine de l'environnement au niveau du pays, notamment entre les départements ministériels ;
- reconnaître que les pays n'ont pas les mêmes capacités ni le même niveau de développement économique et que la souplesse et les méthodes taillées sur mesure s'imposent.

À l'adresse du Gouvernement malgache

Recommandation n°3 : Réfléchir à la possibilité de créer un comité environnemental permanent réunissant plusieurs ministères et bailleurs de fonds.

Les questions environnementales doivent être réglées de manière exhaustive et cohérente en dehors du cadre d'un comité de projet ou de programme particulier. Un comité permanent devrait par conséquent s'articuler sur les stratégies existantes du Gouvernement malgache (telles que le PAM et la Vision Durban) et faire intervenir une vaste gamme de partenaires ministériels dont le ministère de l'Agriculture, de l'Élevage et de la Pêche ; le ministère des Finances ; le ministère des Transports ; et le ministère des Mines. Ce comité servirait aussi de plateforme pour l'examen stratégique intersectoriel des questions environnementales dans le contexte du PAM, l'élaboration d'une stratégie axée sur les ressources issues du DAR et la programmation desdites ressources.

Recommandation n°4 : S'attaquer aux facteurs compromettant la viabilité à long terme des acquis en diversifiant davantage les investissements dans le secteur de l'environnement.

La majeure partie de l'aide consentie jusqu'ici par les bailleurs de fonds et les ONG internationales en faveur de la préservation de la biodiversité est centrée sur la création d'un système d'aires

protégées plus exhaustif. Or, cette approche tend à négliger les menaces externes à la biodiversité dans le contexte plus large des mauvaises pratiques agricoles (comme la culture sur brûlis), de la réduction de la pauvreté et de la dégradation des sols. Ces questions occupent désormais le devant de la scène en raison de la menace que représentent les changements climatiques et de la nécessité de s'y adapter. Le SAPM constitue un mécanisme permettant de prendre en compte à la fois la préservation de la biodiversité et l'amélioration des moyens d'existence par la constitution de catégories particulières d'aires protégées. Les catégories V et VI de l'Union mondiale pour la nature (UICN) visent à gérer les aires protégées tout en faisant une place à la recréation et à l'utilisation durable des ressources. En outre, les acteurs concernés doivent envisager de prendre systématiquement en compte les aspects liés à la biodiversité, à la dégradation des sols et à l'adaptation au changement climatique en dehors du cadre des aires protégées, de manière à permettre un rapprochement pratique plus efficace entre ces aspects et la réduction de la pauvreté et le développement agricole et rural — des questions d'intérêt pour la population malgache majoritairement rurale.

À cette fin, les autorités malgaches et les bailleurs de fonds devront combler l'éternelle lacune liée au renforcement des capacités et établir des partenariats avec des ONG, le secteur privé, et les collectivités et populations locales pour surmonter les obstacles institutionnels, financiers et socioéconomiques à la viabilité à long terme dans le secteur de l'environnement qui recoupe les défis urgents liés au développement du pays. Un comité environnemental permanent (recommandation n°3) pourrait se charger de la programmation et du règlement de ces questions.

À l'adresse des Entités d'exécution du FEM

Recommandation n°5 : Collaborer de façon plus étroite avec les autorités malgaches et les autres acteurs concernés pour que le pays s'identifie davantage aux actions menées.

L'une des constatations importantes de l'évaluation est la faiblesse de la prise en main par le pays, laquelle peut être renforcée par :

- la participation des Entités d'exécution du FEM au comité environnemental permanent réunissant plusieurs ministères et bailleurs de fonds visé à la recommandation n°3 ; cela servirait de base à une définition plus stratégique des priorités en s'appuyant sur l'expérience des Entités d'exécution pour satisfaire les besoins du pays ;
- un appui apporté par les Entités d'exécution au point focal technique pour renforcer son rôle en l'associant à la conception du projet, aux activités de supervision/suivi, et par l'échange régulier des informations ;
- un accent accru mis sur le renforcement des capacités dans les projets et programmes afin de permettre une plus grande implication d'un ensemble d'acteurs des départements ministériels, des administrations locales et des populations locales dans les interventions du FEM.

Recommandation n°6 : Travailler avec les autorités malgaches et les autres acteurs concernés à l'élaboration d'une nouvelle approche-secteur et d'une nouvelle approche-programme pour améliorer la viabilité du point de vue écologique.

Les problèmes environnementaux de Madagascar sont complexes et nécessitent d'envisager des approches sectorielles et des approches-programmes qui puissent relier et coordonner la préservation de la biodiversité, la dégradation des sols et l'adaptation au changement climatique d'une

part et le développement rural et agricole et la réduction de la pauvreté d'autre part. Ce faisant, les Entités d'exécution du FEM et les autorités malgaches doivent procéder à l'inventaire de l'ensemble des éléments concrets d'évaluation dont ils disposent aujourd'hui pour internaliser les leçons tirées du programme environnemental et avancer ensemble de manière à planifier une approche-programme et/ou une approche sectorielle plus cohérente et durable.

L'adaptation au changement climatique et la dégradation des sols viennent en tête des priorités régionales (continentales) et peuvent offrir des incitations au niveau local pour améliorer et pérenniser la protection de l'environnement national et mondial.

1.5 Questions Émergentes concernant le DAR

Le Bureau de l'évaluation réalisant actuellement un examen à mi-parcours du Dispositif d'allocation des ressources (DAR), il n'a pas été jugé indiqué de formuler des conclusions et des recommandations finales à ce sujet. Mais le DAR reste un élément de grande préoccupation pour les acteurs malgaches comme indiqué ci-dessous :

- Les quelques acteurs qui le connaissaient assez bien considéraient le DAR comme une étape positive vers une prise en main accrue et la participation à la définition, à l'élaboration et à la mise en œuvre des projets reflétant aussi bien les priorités nationales que les priorités mondiales du FEM. Or, cela ne s'est pas encore concrétisé.
- Nombreux sont les acteurs qui ne connaissent pas le DAR, c'est-à-dire son fonctionnement et, surtout, la manière dont les autorités malgaches devraient prendre en main la programmation des ressources reçues du FEM dans le cadre de ce dispositif.
- Malgré les importantes ressources allouées à Madagascar dans le domaine de la biodiversité, le pays manque d'approche stratégique à l'appui de la programmation des ressources issues du DAR. À l'heure actuelle, Madagascar n'a ni comité environnemental ni comité national, constitué dans le cadre du FEM, se réunissant régulièrement pour donner des orientations stratégiques à l'élaboration des projets au titre du DAR. Cette situation tient en partie aux changements opérés à la tête du ministère de l'Environnement, des Eaux et Forêts et du Tourisme.
- Fin 2006, le Secrétariat du FEM et les autorités malgaches se sont entretenus sur la programmation des ressources du DAR affectées à la biodiversité. Or, dans le cadre de l'évaluation, nous n'avons trouvé ni pièce écrite ni compte rendu de ces discussions conservé par l'un ou l'autre interlocuteur, ce qui représente une grosse perte en mémoire institutionnelle et en transparence.

Note

1. Bureau de l'évaluation du FEM, Évaluation conjointe du cycle des activités et des modalités applicables, Rapport d'évaluation n° 33 (Washington, 2007).

Foreword

This report is the fifth in a series of country portfolio evaluations produced by the Evaluation Office of the Global Environment Facility (GEF). Using the country as the unit of analysis, these evaluations examine the totality of GEF support across all GEF Agencies and programs. The overall objectives for undertaking such studies are (1) to evaluate how GEF-supported activities fit into national strategies and priorities as well as within the global environmental mandate of the GEF and (2) to assess the results of GEF-supported activities and how these activities are implemented.

Country portfolio evaluations are conducted independently by the Evaluation Office in partnership, when possible, with other GEF Agency evaluation offices, the national government, and nongovernmental organizations.

This evaluation was part of a series of country portfolio evaluations examining GEF support in Sub-Saharan Africa. Madagascar was chosen for such evaluation based on several criteria, including its long history with the GEF; its significance as a global hotspot for biodiversity; the role of the environmental sector in its sustainable development agenda, particularly regarding the implementation of its Environment Program; and its large GEF funding allocation for biodiversity conservation under the Resource Allocation Framework.

The evaluation found that GEF support has contributed positively to the conservation of Madagascar's globally important biodiversity. Most notably, the GEF contributed to an increase in the size and coverage of protected areas and decreased deforestation within them. The GEF has also enabled Madagascar to address other environmental concerns such as persistent organic pollutants, climate change mitigation and adaptation, and land degradation. GEF support has been consistent with its global mandate. Despite these successes, the evaluation found several challenges such as weak government ownership of the Environment Program and sustainability risks across financial, institutional, and socioeconomic aspects of the environment sector.

The first Annual Country Portfolio Evaluation Report presented the findings and recommendations of the evaluations in Benin, Madagascar, and South Africa to the GEF Council. The annual report was discussed on April 22, 2008. It is published separately (Evaluation Report No. 44). The summary of the Madagascar evaluation was made available to the Council as an information document. Throughout the Council discussions during the April 2008 meeting, reference was made to the findings of the specific country portfolio evaluations in Benin, Madagascar, and South Africa, which was a very positive sign that the evaluations

were bringing information to the Council that was relevant to its discussions on other subjects.

The findings of the evaluation were discussed in Antananarivo in a workshop attended by a wide range of stakeholders on February 25, 2008. I would like to thank the government of Madagascar and all participants for their interest shown in the evaluation and their support of the Evaluation Office.

Rob van den Berg
Director, Evaluation Office

Acknowledgments

This report was prepared by a team led by Lee Alexander Risby, Evaluation Officer, GEF Evaluation Office, and consisting of three consultants: Christian Chatelain, Timothy Healy, and Alain Randriamaherisoa.

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A draft document was presented in Antananarivo on February 25, 2008, to national stakeholders, including representatives of the national government, GEF Agencies, nongovernmental organizations, and other civil society partners. The feedback received was very constructive, and the comments have been incorporated in this evaluation report. The Evaluation Office remains fully responsible for the contents of the report.

Abbreviations

ANGAP	National Association for the Management of Protected Areas (Association Nationale pour la Gestion des Aires Protégées)
ASCLME	Agulhas-Somali current large marine ecosystem
CBO	community-based organization
CELCO	Division for the Coordination of the Environmental Program (Cellule de Coordination du Programme Environnemental)
CPE	country portfolio evaluation
GEF	Global Environment Facility
IUCN	International Union for the Conservation of Nature and Natural Resources
MAP	Madagascar Action Program
M&E	monitoring and evaluation
MINEFT	Ministry of Environment, Water, Forests, and Tourism
NAPA	National Adaptation Program of Action
NEAP	National Environmental Action Program
NGO	nongovernmental organization
ONE	National Environment Office (Office National pour l'Environnement)
PCB	polychlorobiphenyl
POP	persistent organic pollutant
PRSP	poverty reduction strategy paper
RAF	Resource Allocation Framework
SAGE	Support to Environmental Management (Service d'Appui à la Gestion de l'Environnement)
SAPM	System of Protected Areas of Madagascar (Système d'Aires Protégées de Madagascar)
SLM	sustainable land management
UNCBD	United Nations Convention on Biological Diversity
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
USAID	U.S. Agency for International Development
WIO-LaB	Addressing Land-Based Activities in the Western Indian Ocean
WWF	World Wide Fund for Nature

1. Main Conclusions and Recommendations

This chapter presents the conclusions of the Global Environment Facility (GEF) Madagascar Country Portfolio Evaluation (CPE) and related recommendations to the GEF Council and the government of Madagascar. The conclusions relate to the results, effectiveness, relevance, and efficiency of GEF support. The evaluation for the Madagascar CPE, completed between November 2007 and February 2008, is one of four African CPEs undertaken by the GEF Evaluation Office during this period. The evaluation focused on Madagascar's portfolio of 10 national projects and the Madagascar components of 8 of 13 regional projects. The other regional projects and their results fall outside of the scope of this evaluation. Stakeholder comments on a draft of this report, made in writing and at a consultation workshop held on February 25, 2008, have been taken into account in finalizing the conclusions and recommendations.

1.1 Background

Madagascar's participation in the GEF started after the GEF pilot phase in 1994 with GEF participation in Environment Program II, one of three consecutive five-year programs supporting the National Environmental Action Plan (NEAP). Since then, Madagascar has been involved in an additional nine national projects for a total of about $36 million (see table 1.1). About 97 percent of the GEF funding has supported projects in the biodiversity focal area, 1.5 percent each for climate change and persistent organic pollutants (POPs). There are no national land degradation or international waters projects. Madagascar participates in 13 regional projects, which address biodiversity, international waters, land degradation, and POPs.

Table 1.1

GEF Total Support to National Projects in Madagascar, by Focal Area

	Support	
Focal area	**Million $**	**% of total**
Biodiversity	34.94	97.0
Climate change	0.55	1.5
POPs	0.50	1.5
Total	**35.99**	**100.0**

Based on the overall purpose of the GEF CPEs and their terms of reference, the evaluation of GEF support to Madagascar had the following specific objectives:

- Independently evaluate the **relevance and efficiency** of GEF support in the country from several points of view: national 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 and ongoing projects in each relevant focal area.

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

Among several considerations, Madagascar was selected based on its large portfolio, programmatic approach (for example, that used in Environment Program I, II, and III), portfolio emphasis on biodiversity and protected area systems, large allocation for biodiversity under the Resource Allocation Framework (RAF), and its importance as a global biodiversity hotspot.

1.2 Methodology

The Madagascar CPE was conducted by staff of the GEF Evaluation Office and three consultants based in France and Madagascar, who made up the evaluation team. The methodology included a series of components using a combination of qualitative and quantitative data collection methods and standardized analytical tools. Several sources of information were considered as the basis for the evaluation at different levels—that is, project, government, civil society, GEF Implementing and executing Agencies, and so on. The quality of these documents was reviewed before they were included in the evaluation. The quantitative analysis used indicators to assess the efficiency of GEF support, using projects as the unit of analysis (that is, time and cost of preparing and implementing projects, and so on). The evaluation team used standardized tools and protocols for the CPEs and adapted these to the Malagasy context. Projects were selected for visits based on whether they had been completed or were near completion, on project and/or project component approaches, and on accessibility.

The main focus of the evaluation is projects implemented within the boundaries of Madagascar. The GEF has provided about $35.99 million for 10 such national projects from 1994 to 2007. In addition, eight regional projects in which Madagascar participates were reviewed; these were selected because they had significant Malagasy involvement and include four international waters projects. A full assessment of their aggregate relevance, results, and efficiency was beyond the scope of this CPE, given that only the Malagasy components were assessed. National and regional project proposals under preparation—for example, those in pipelines—are not part of the evaluation.

A number of limitations affected the evaluation:

- Country portfolio evaluations are challenging, as the GEF does not operate by establishing country programs that specify expected achievement through programmatic objectives, indicators, and targets.
- Attribution is another area of complexity. The CPE does not attempt to attribute development and even environmental results directly to the GEF, but assesses the contribution of GEF support to overall achievements.
- The assessment of results is focused, where possible, at the level of outcomes and impact, rather than outputs.
- Evaluating the impacts of GEF-funded initiatives is not straightforward. Many projects do not clearly or appropriately specify the expected impact or sometimes even the outcomes of projects. As this evaluation was restricted to secondary sources, it had no scope for conducting primary research to supplement project reports or identify impact and outcomes.
- Results reported come from various sources; some have been established through external

evaluation, and others are drawn from internal project reports and interviews.

- The evaluation team has struggled to establish a clear, reliable set of data on projects and project documentation. The available data, including the list of projects in the GEF portfolio, contained inconsistencies, gaps, and discrepancies.
- The evaluation was conducted within a tight time frame—effectively four months—to accommodate the revised timing of the GEF Council meeting.

1.3 Conclusions

Results and Effectiveness

Conclusion 1: GEF support has contributed significant results in biodiversity conservation.

The GEF investment in the biodiversity focal area has resulted in significant global benefits by increasing the size and coverage of the Madagascar protected area system from 21 to 46 reserves. It has also contributed to a decrease in the deforestation rate inside protected areas.

The GEF has contributed to the implementation of the NEAP. This has resulted in (1) improvement of national policy-maker awareness and knowledge on environmental issues, (2) establishment of national institutions to address biodiversity conservation and other environmental issues, (3) broadening of the protected area system under the System of Protected Areas in Madagascar (SAPM) to include new classifications—specifically, the International Union for the Conservation of Nature (IUCN) categories V and VI—to provide for greater community and private sector participation. Notably, the GEF has supported the first example in Madagascar of sustainable community protected area management of 50,000 hectares of the Anjozorobe Forest Corridor. This experience is now being scaled up.

The GEF enabling activities in biodiversity have helped the government of Madagascar by informing priority setting and the creation of new protected areas (under the Durban Vision and SAPM), particularly in marine and coastal areas, which were previously underrepresented.

Conclusion 2: The GEF is enabling Madagascar to address other environmental challenges.

GEF support is enabling the government of Madagascar and other stakeholders to address a broader range of national and global environmental issues beyond the established focus on biodiversity conservation. GEF funding has mostly concentrated on laying the foundations for Madagascar to address global environmental issues through enabling activities in POPs, climate change mitigation and adaptation, and land degradation. Notably, the government's National Adaptation Program of Action (NAPA) has identified national priorities and areas for future project investment.

Investment activities have occurred only in the international waters focal area, in which Madagascar has been an active partner with other Southern African and Indian Ocean states in addressing oil pollution risks. This has resulted in capacity and infrastructure improvements in Madagascar's major ports. The sustainability of the investment has been ensured through a taxation system. Other international waters investments to reduce land-based pollutants, improve navigation, and manage fisheries are currently under way and have the potential for delivering results. Other investment activities are about to become effective in land degradation.

Conclusion 3: The GEF portfolio results are at risk because of weak financial, institutional, and socioeconomic sustainability.

Despite more than $400 million of donor investment in the environment sector since 1990—including about $36 million of GEF grant

funding—financial, institutional, and socioeconomic sustainability remains the key challenge, particularly regarding the Environment Program as it enters its final phase of implementation.

Financial sustainability has not been adequately addressed in the Environment Program, because donors, including the GEF, have been unable to sufficiently catalyze a sustainable protected area management system. Few of the protected areas are able to self-finance their operations through gate receipts and/or tourism revenues. The government of Madagascar, the World Bank, and international nongovernmental organizations (NGOs), with GEF support through the RAF allocation, are in the process of establishing a trust fund mechanism to support the country's protected area system in the long term. This has a strong potential for resolving the financial sustainability issue.

Enabling institutional sustainability for effective management of biodiversity and environmental resources has been an issue common to the implementation rationales for Environment Program I through III. However, despite significant financial and technical investment by donors, institutional sustainability is weak. The evaluation highlights the following issues:

- The durability of an institution is often based on its broad capacity, from local to regional and national levels, and on having sustainable financing from revenue generation or through government budget lines. Many of the institutions currently working in Madagascar's environment sector do not have these characteristics and are thus not sustainable without donor financing.
- At the individual and institutional levels, capacities remain uneven and diffuse. The Ministry of Environment, Water, Forestry, and Tourism (MINEFT) is currently weak at the national and local levels, and other institutions addressing the environment receive the majority of donor funding and technical assistance. Furthermore, institutional capacity barriers are associated with decentralization, because ministry representatives in the field lack skills to play a meaningful role in environmental management at the local government and community scales.
- The complexity of institutional roles and responsibilities in both Environment Program II and III has decreased cross-institutional communication and knowledge sharing.

With regard to socioeconomic sustainability, Environment Program II and III have consistently emphasized integration of biodiversity conservation with local community livelihoods. The second program achieved some success in terms of developing community forestry and microprojects to improve livelihoods, thereby relieving pressure on protected areas, but overall the results were diffused and of limited sustainability. Under the third program, the joint GEF and United Nations Development Programme (UNDP) component addressing sustainable natural resource management represents another attempt to resolve the tension between protection of biodiversity and local community livelihoods; however, the results and sustainability of this approach have yet to be realized.

The independent evaluations of Environment Program I and II highlighted the difficulties the program has faced in addressing the anthropogenic pressures relating to rural development, poor agricultural techniques, and poverty, which are threatening biodiversity (World Bank 2000, 2007b). Ultimately, local populations near protected areas are paying the price for the maintenance of global environmental benefits through foregone access to resources. At present, the emphasis on linking conservation with rural and

agricultural development in a cohesive approach is not sufficient to provide incentives to support biodiversity conservation.

Relevance

Conclusion 4: The GEF portfolio in Madagascar is relevant to national priorities and strategies. GEF support is aligned with global environmental benefits, with the main emphasis in the field on biodiversity.

GEF assistance has been fully supportive and consistent with national priorities and strategies, such as the NEAP and the Poverty Reduction Strategy Paper (PRSP). The relevance of GEF support was found to be further enhanced by the Durban Vision and the Madagascar Action Program (MAP). The main emphasis of the GEF portfolio has been on biodiversity conservation, which reflects Madagascar's global environmental resources. Until recently, the focus has been on terrestrial biodiversity, but with the implementation of the Durban Vision, the government of Madagascar has now begun to increase the coverage of the protected area system to safeguard coastal and marine resources. The government's increasing recognition of the threats posed by climate change presents opportunities to link adaptation, biodiversity conservation, and land degradation investments.

Conclusion 5: The issue of country ownership and capacity to create ownership remains a key challenge for the government of Madagascar and donors.

The evaluation revealed that government ownership of the GEF-funded interventions is presently not as robust as it should be, particularly in relation to the Environment Program. For example, although this program is linked to the NEAP, it has been driven to a significant extent by the GEF Implementing Agencies and bilateral donors. The reasons cited for donors taking the primary lead in driving the environment sector was a lack of capacity and leadership in the MINEFT.

Ministry staff at the level of the minister (the GEF political focal point) and secretary general (the GEF operational focal point) have experienced high turnover, which has not enabled stability or clarity of leadership on GEF issues or in the environmental sector as a whole. It is thus not surprising that government ownership of Environment Program III is a challenge and that donors have become the actual drivers of the program.

The Environment Program has created many institutions, such as the National Association for the Management of Protected Areas (ANGAP), National Environment Office (ONE), and Support to Environmental Management (SAGE), and a coordinating unit such as the Division for the Coordination of the Environmental Program (CELCO). This has resulted in a diffusion of institutional roles that lack clarity, sufficient coordinating responsibility, and a complex institutional landscape. Although these institutions have ownership over particular parts of Environment Program III, reporting relationships to the ministry remain unclear. The GEF Agencies have supported the proliferation of institutions, reflecting the low confidence of certain donors in capacity at the ministry. This has tended not to solve ownership and capacity issues, but contributed to current ownership and capacity weaknesses at the national and local levels.

At the local and regional levels, the Anjozorobe Forest Corridor project, which Fanamby (Madagascar's largest environmental NGO) has developed and implemented, was observed to have strong ownership and commitment both internally with regard to its conservation approach—which is fully in line with GEF strategies—and externally with regard to its community and local

government stakeholders. Ownership in this project has been built through continuous involvement of stakeholders in project design and implementation, coupled with good communication and a strong site presence on the part of Fanamby.

Efficiency

Conclusion 6: The complexity and inefficiency of the GEF Activity Cycle has presented barriers to project development.

The majority of stakeholders (government, Implementing Agencies, and NGOs) expressed negative views of the GEF Activity Cycle for previous projects, in terms of lengthy periods taken for processing, associated high transaction costs in terms of financial and human resource inputs, and lack of information and clarity relating to delays. These perceptions are primarily based on the previous project cycle, on which the portfolio has operated until now, and confirm the findings of the Joint Evaluation of the GEF Activity Cycle and Modalities. As a result, the challenge for the GEF now lies in demonstrating that these features will not be carried forward into the new project cycle that was recently adopted.

Conclusion 7: The roles and responsibilities of stakeholders are not clear, and coordination is suboptimal.

The institutional landscape in Madagascar is complex, because roles and responsibilities are diffused. This presents many challenges for communication, coordination, and knowledge sharing. The challenge of defining and allocating roles and responsibilities is not a new issue for Madagascar. The previous independent evaluations of Environment Program I and II both highlight a lack of clarity in roles and responsibilities from the national level of the ministry to the community level (World Bank 1997, 2000). At present, several of the international waters regional projects have focal points based in institutions whose comparative advantage is not in international waters, with limited involvement of more appropriate line ministries. This situation is suboptimal.

Because of the large number of stakeholders involved in Environment Program II and III, coordination at many levels has been challenging. Several attempts have been made to solve this issue, but to date they have been less than satisfactory. Interviews with a number of donors, the government of Madagascar, and international NGOs raised these issues repeatedly, indicating that Environment Program III coordination remains a persistent challenge in terms of synergies between donor-funded and interministerial activities and between monitoring and evaluation (M&E) systems and reporting frameworks. More recently, donors and the government have tried to address the challenges through a multidonor-government steering committee, but this has not met frequently and has widely been seen as donor rather than government driven—in part a result of the institutional weaknesses within the ministry and turnover of staff since the beginning of Environment Program III.

Conclusion 8: The operational focal point mechanism is currently underresourced and unable to be operational.

The operational focal point lacks resources and time to develop and supervise the GEF portfolio adequately. This position has lacked institutional continuity, given 11 personnel changes in the past 10 years (4 of which occurred in the past 4 years).

Furthermore, Madagascar lacks a stable GEF national committee to program RAF resources strategically and coordinate on environmental issues outside a project or program. A committee has met in the past, but it has tended to be ad hoc and to lack structure.

Conclusion 9: Knowledge management and lesson learning are not formalized and are impeded because of a lack of M&E.

There is no formal modality for exchange of lessons learned and knowledge sharing between GEF projects and programs and other donor and international NGO environmental programs. Lack of improvement in M&E means that knowledge management on project experiences and best practice will remain limited because of the inability to know what is success or failure, and the reasons why.

1.4 Recommendations

Recommendations to the GEF Council

Recommendation 1: The GEF should consider further supporting trust funds as an approach to improving the sustainability of global environmental benefits.

Weaknesses in financial sustainability are a common issue associated with project-based interventions. In the 1990s, the GEF supported trust funds as an approach to securing sustainability for protected areas beyond the life of projects. The recent impact evaluation of Bwindi-Mgahinga Trust Fund confirmed the effectiveness of this approach for the augmentation and maintenance of management capacities and recurring costs, as well as the provision of incentives for local communities. The GEF Council should consider renewing its emphasis on trust funds to sustain global environmental gains.

Recommendation 2: The GEF should develop a strategy to improve capacities to address global environmental issues in least developed countries.

This approach could include several elements:

- Strengthening of the GEF focal point mechanisms to function effectively
- Developing an effective integrated strategic coordination approach for partnership for funding
- Facilitating the creation of partnerships to increase the mobilization of resources for the implementation of the global conventions related to the GEF, in particular for least developed countries
- Facilitating effective and strategic integration, coordination, and dialogue among environmental actors at the country level, particularly among ministries
- Recognizing the differences in country capacities and economic development and the need for flexibility and tailored approaches

Recommendations to the Government of Madagascar

Recommendation 3: Madagascar should consider setting up a permanent interministerial and multidonor environmental committee.

The need exists to address environmental issues in a comprehensive and coherent manner outside of a project or program committee.

A permanent committee should be linked to existing government strategies, such as the MAP and the Durban Vision, and involve a broad range of ministerial partners (for example, the Ministries of Agriculture, Livestock, and Fisheries; Finance; Mining; and Transport). Such a committee would also provide a platform for the strategic cross-sectoral consideration of environmental issues within the context of the MAP, and the development of a strategy for and the programming of GEF RAF resources.

Recommendation 4: Investment in the environmental sector needs to be more diversified to address threats to sustainability.

The majority of support provided by donors and international NGOs for biodiversity conservation has focused on establishing a more comprehensive protected area system. However, this approach has tended to neglect external threats to biodiversity in the wider landscape relating to poor agricultural practices (for example, slash-and-burn agriculture or *tavy*), poverty reduction, and land degradation. These issues are now being given greater urgency and focus with the threat of climate change and need for adaptation.

Addressing these threats requires a focus on biodiversity conservation within the context of SAPM by establishing IUCN categories V and VI protected areas to improve the integration of such conservation with livelihoods. It also requires mainstreaming biodiversity, land degradation, and adaptation issues outside of protected areas to enable more effective practical linkages with poverty reduction and agricultural and rural development, which are the pertinent issues for Madagascar's predominantly rural population.

To this end, the government of Madagascar and donors will need to address the persistent capacity development gap and forge partnerships with NGOs, the private sector, local governments, and communities to address institutional, financial, and socioeconomic barriers to sustainability in the environment sector as it relates to the country's pressing development challenges. Such issues could be addressed and programmed by a permanent environment committee (per recommendation 1).

Recommendations to the Implementing Agencies

Recommendation 5. The Implementing Agencies need to work more closely with the government of Madagascar and other stakeholders to enhance country ownership.

The weakness in country ownership is a significant finding of the evaluation. Ownership could be strengthened in the following ways:

- Involvement of the Implementing Agencies in the recommended permanent interministerial and multidonor committee to the government, providing the basis for more strategic formulation of priorities, drawing on Agency experiences, and responding to country needs
- Implementing Agency assistance to the operational focal point to strengthen his or her role through involvement in project design, supervision and monitoring missions, and regular sharing of information
- Further emphasis on capacity development in projects and programs, which will allow a range of stakeholders—from the ministry to local government and communities—to become more involved in GEF interventions

Recommendation 6: The Implementing Agencies need to work with the government of Madagascar and other stakeholders to consider more sectorwide and programmatic approaches to supporting environmental sustainability.

Madagascar's environmental problems are complex and require the consideration of sectorwide and programmatic approaches that are able to link and coordinate biodiversity conservation, land degradation, and adaptation with rural and

agricultural development and poverty reduction. In doing so, the GEF Agencies and government need to take stock of the cumulative evaluative evidence now available to them to internalize the lessons of the Environment Program and move forward together to plan a more coherent and sustainable programmatic and/or sectorwide approach.

In the case of climate change adaptation and land degradation, these issues are at the top of regional (continent-level) priorities and have potential for providing local incentives to enhance the delivery and sustainability of global environmental and national development benefits.

1.5 Emerging Issues Concerning the RAF

As the GEF Evaluation Office is presently conducting a review of the RAF at its midterm point of implementation, it was not considered appropriate to make final conclusions and recommendations. Nevertheless, the RAF is a current issue for Malagasy stakeholders. The following paragraphs summarize the main points raised:

The RAF was received by the few stakeholders who were sufficiently aware of it as a positive step toward enhanced ownership and participation in the identification, elaboration, and implementation of projects that reflect both national priorities and the GEF's global priorities. However, this has yet to be attained.

Many stakeholders lack awareness of the RAF, in terms of how it functions and, more important, how the government should lead RAF programming of the financial resources available from the GEF.

Despite Madagascar's significant biodiversity allocation, the programming of RAF resources lacks a strategic approach. Madagascar currently does not have an environmental committee (or GEF national committee) that meets regularly to provide strategic guidance for project development under the RAF. This situation has arisen in part because of the changes in leadership within the MINEFT.

Discussions between the GEF Secretariat and the government of Madagascar were conducted in late 2006 on the programming of RAF resources for biodiversity. However, the evaluation found that neither the government nor the GEF Secretariat kept a record or minutes of the discussion. Such a practice would provide significant opportunities for improvement in institutional memory and transparency.

2. Evaluation Framework

2.1 Objectives

The overall purposes of the CPEs are to (1) evaluate how GEF-supported activities fit into national strategies and priorities as well as within the global environmental mandate of the GEF and (2) provide the GEF Council with additional information on the results of GEF-supported activities and how these activities are implemented.

In 2007, the GEF Evaluation Office selected from among 160 GEF-eligible countries—based on a stratified randomized selection and a set of strategic criteria—four countries in Africa to evaluate: Benin, Cameroon, Madagascar, and South Africa. Among several considerations, Madagascar was selected based on its large portfolio, programmatic approach (for example, with regard to Environment Program I, II, and III), significant portfolio emphasis on biodiversity and the protected area system, expected large allocation for biodiversity under the RAF, and its importance as a global biodiversity hotspot.

Based on the CPE's overall purposes, this evaluation had the following specific objectives:

- Independently evaluate the **relevance and efficiency** of GEF support in Madagascar from several points of view: national environmental frameworks and decision-making processes; the GEF mandate and the achievement of global environmental benefits; and GEF policies and procedures[1]
- Assess the **effectiveness and results** of completed and ongoing projects in each focal area[2]
- Provide **feedback and knowledge sharing** to (1) the GEF as an objective base for its decision-making processes on resources, policies, and strategies; (2) Madagascar on its participation in the GEF; and (3) the various involved implementing and executing agencies

2.2 Key Questions

The conduct of the CPE was guided by the following key questions:

- **Relevance of GEF support**
  - Is GEF support relevant to the PRSP and environmental priorities, national development needs and challenges, and action plans for the GEF's national focal areas?
  - Are the GEF and its Agencies supporting environmental and sustainable development prioritization and national decision-making processes?
  - Is GEF support relevant to the objectives of the different global environmental benefits?
  - Is Madagascar supporting the GEF mandate and focal area programs and strategies with

its own resources and/or support from other donors?

- How relevant are the RAF indexes to Madagascar's priorities?

- **Efficiency of GEF support**
  - How much time, effort, and financial resources are needed to develop and implement projects by type of GEF support modality?
  - What are the roles, types of engagement, and coordination among different stakeholders in project implementation?
  - How successful is the dissemination of GEF project lessons and results?
  - What are the synergies between GEF project programming and implementation among the different stakeholders?
  - What is the sustainability of GEF support?[3]
  - To what extent have GEF operations changed after the introduction of the RAF?

- **Results and effectiveness of GEF support**
  - What are the results (outcomes and impacts) of completed and ongoing projects?
  - What are the aggregated results at the focal area and country levels?
  - What is the likelihood that objectives will be achieved for those projects that are still under implementation?

2.3 Methodology

The CPE was conducted by an independent evaluation team under the management of the GEF Evaluation Office.

The methodology combined qualitative and quantitative methods and tools. The qualitative aspects of the evaluation included a desk review of existing documentation:

- **Project level**—project documents, project implementation reports, terminal evaluations, reports from monitoring visits, and documents produced by projects
- **Country level**—national sustainable development agendas, environmental priorities and strategies, GEF focal area strategies and action plans, GEF-supported National Capacity Self-Assessment, and global and national environmental indicators
- **Agency level**—country assistance strategies and frameworks and their evaluations and reviews, including technical and financial audits
- **Evaluative evidence**—at the country level from GEF Agencies and other donors active in the environment sector
- **Statistics and scientific sources**—especially for national environmental indicators
- **Interviews with GEF stakeholders**—including GEF Agencies, government departments, and national convention focal points
- **Interviews with GEF beneficiaries** and supported institutions—including NGOs
- **Field visits** to project sites
- Information from national consultation **workshops**

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

The evaluation team used standard tools and protocols, including project review protocols to

guide and conduct the desk and field reviews of GEF projects and interview guidelines to conduct interviews with different stakeholders.

The major national full-size and medium-size projects (FSPs and MSPs), enabling activities, and some of the regional projects were visited and/or key actors involved with implementing those activities interviewed. Three projects (Environment Program II and III, and the Anjozorobe project) were or are being implemented at the local level; community meetings were held to evaluate the direct results of these three projects and provide a representative cross-section of experiences (1) within and among a varied selection of protected areas and associated buffer zones, (2) on coverage of forest and coastal areas, (3) to compare and contrast the activities of different implementers (NGOs and the government of Madagascar), (4) from visits to protected areas not supported by the GEF, and (5) related to practical and logistical concerns. The following field sites were visited:

- **Anjozorobe and its surrounding communities (Anjozorobe project):** two community meetings with local stakeholders in Anjorozobe and Ambohidronono
- **Andasibe National Park and its surrounding communities (Environment Program II):** (non-GEF-supported protected area); one community meeting in Antanamitarana and three discussions with local stakeholders in Andasibe
- **Baie de Baly National Park and its surrounding communities (Environment Program III):** four community meetings and discussions with local stakeholders in Soalala, Baly, Maroalika, and Antamboho
- **Nosy Be and Sahalamaza and its surrounding communities (Environment Program III):** five community meetings and several discussions with local stakeholders in Hellville, Antsahampano, Ile Sakatia, Antanamitarana, Ile Berafia, Maromandia, and Ankitisiaka

2.4 Scope of the Evaluation

The CPE covers only those GEF projects that are completed or under implementation. The evaluation does not consider pipeline proposals and canceled pipeline projects. Regional and global projects in which Madagascar participates at a policy level and/or through demonstration and pilot activities (see chapter 4) are considered. The CPE covers all GEF Agencies in all focal areas, including the Small Grants Programme. The GEF portfolio is defined as the aggregate of all these activities.

As the GEF does not have country programs, no GEF framework with predetermined objectives exists against which to assess results or effectiveness. Therefore, the evaluation measured the portfolio against global environmental benefits as specified in the national environmental framework and GEF focal area strategies and RAF indexes.

GEF support is provided through partnerships and coordination with (and through) many institutions. The interconnected nature of support makes it challenging to consider GEF support separately. The CPE did not attempt to attribute environmental results directly to the GEF, but addressed the contribution of GEF support to overall achievements to establish a credible link between what GEF supported and its implications. The evaluation addressed how GEF support has functioned in partnership with government ministries and other institutions, donors, the private sector, and civil society through questions on roles and coordination, synergies and complementarities, and knowledge sharing.

Furthermore, the context in which projects were developed and approved and are being implemented constitutes a focus of the evaluation. This

included an assessment of the national sustainable development and environmental policies, strategies and priorities, legal environment in which these policies are implemented and enforced, GEF Agency country strategies and programs, and GEF policies (including the RAF), principles, programs, and strategies.

2.5 Limitations

The portfolio in Madagascar, although large, is concentrated. Of the national projects, only the full-size Environment Program II and some of the enabling activities have been completed. Results at the output and outcome levels are available for most completed projects, but it is too early to judge the impacts of these projects. Rapid spot field evaluations were conducted in several locations to assess and verify results and sustainability, alongside in-depth desk review; due to time and resource constraints, many sites could not be directly visited. Of the ongoing projects, Environment Program III is the most important; however, the results of this project are not clear, as it has only just reached the midpoint of implementation. The evaluation does take into account the process "outcomes" of the preparation and implementation to date of Environment Program III and other projects under implementation, such as the Anjozorobe project.

Notes

1. *Relevance:* the extent to which the objectives of the GEF activity are consistent with beneficiaries' requirements, country needs, global priorities, and partners' and donors' policies. *Efficiency:* a measure of how economically resources and inputs (funds, expertise, time, and so on) are converted to results.

2. *Results:* the outputs, outcomes, or impacts (intended and/or unintended, and 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.

3. The CPE addresses four dimensions of sustainability: financial, institutional, socioeconomic, and environmental.

3. Context of the Evaluation

This chapter summarizes the evaluation context from the standpoint of the environmental framework in Madagascar and the operations and mandate of the GEF.

3.1 Country Context

Geographical Characteristics

With a surface area of 594,000 square kilometers, Madagascar is the fourth largest island in the world. Located in the Indian Ocean, it is separated from Africa by the Mozambique Channel. Although its general climate is tropical, regional and local variations exist, depending on geographic location, geomorphology, topography, and the type of vegetative cover. The east and northeast of the island are humid and tropical, whereas the west and southwest are dry and tropical. The landscape is mountainous and characterized by three large central massifs, which soar to their highest points from north to south at 2,876 meters (Tsaratanana), 2,643 meters (Tsiafajavona/Ankaratra), and 2,658 meters (Boby/Andringitra peak). Contrasting with the short and steep eastern slopes of these mountains, their western slopes are longer and gentler. With annual rainfall ranging from 377 millimeters in the south to 3,792 millimeters in the northeast, the landscape creates a large hydrographic network that exceeds 3,000 kilometers in length (Chaperon, Danloux, and Ferry 1993).

The fact that 90 percent of the country's fauna is silvicultural attests to the importance in earlier times of the island's forest cover, which is gradually shrinking and now covers a mere 10 percent of its original land surface (9 million hectares); this figure includes all types (humid forests in the east, average-altitude sclerophyllous forests, mountains, deciduous forests in the west, needlelike bushes in the highlands, and thorny forests in the south and southwest). The remaining 90 percent is covered by secondary formations and grasses.

Social and Economic Characteristics

Madagascar's population has been increasing steadily as a result of improved hygiene and health conditions. Estimated at 6.2 million in 1966, the population stood at 12.4 million in 1993 and at 14.6 million in 1999. The current population is an estimated 18 million. According to INSTAT (2000), the annual population growth rate stood at 2.7 percent between 1966 and 1993; according to the United Nations Population Fund, it was 3.1 percent between 1995 and 2000. Average population density is 20.5 inhabitants per square kilometer.

Madagascar's population is young; more than 60 percent of Malagasies are under age 25, owing to a high fertility rate as well as a declining mortality rate.

Governance

The first commitment of the MAP 2007–12 is to "responsible governance" characterized by a government that every citizen and the international community can trust and by members of the civil service who have integrity and are efficient and professional. This commitment is composed of seven main challenges: providing security for people and property, strengthening the rule of law, reducing corruption, establishing an efficient and effective government budgetary process, strengthening the provision of public services, decentralizing government administration, and opening up to progress.

Poverty and Environmental Issues

The rural areas of Madagascar are characterized by widespread and extreme poverty, which exerts great pressure on the country's unique biodiversity. Madagascar, which ranks 143rd of the 192 countries classified by the UNDP's Human Development Index, is mired in poverty; its per capita gross domestic product fell from $383 in 1960 to $266 in 2004.[1] Close to 70 percent of the island's inhabitants live below the poverty line, and more than 80 percent of these poor live in rural areas. Their sustenance depends almost entirely on agriculture and activities involving related natural resources. Low productivity, along with soaring demographic growth rates, has created pressure to expand agriculture by applying slash-and-burn techniques to cultivation. Ill-defined land tenure rights, higher migration rates in the country, and a breakdown in traditional regulatory mechanisms are exacerbating this trend.

Successive governments in Madagascar have already focused attention on and accorded priority to the issues of poverty and the environment. More recently, the PRSP and the MAP have sought to undertake a simultaneous and complementary review of these twin problems.

Regarding the environment, commitment seven of the MAP—taking care of, cherishing, and protecting the country's environment—identifies four challenges: increase protected areas for the conservation and development of land, lake, marine, and coastal biodiversity; reduce the natural resource degradation process; develop environmental consciousness at all levels; and strengthen the effectiveness of forest management.

3.2 Environmental Resources in Key GEF Focal Areas

Biodiversity

Madagascar is one of 17 "megadiverse" countries in the world—that is, countries with extremely high levels of biodiversity. The geological and tectonic history of Madagascar (particularly its separation from the African continent 165 million years ago), its location in the Indian Ocean, and its high level of geomorphological and climatic diversity have created a significant variety of ecosystems that correspond to equally significant levels of biodiversity.

Malagasy flora is currently estimated at 14,000 plants, 350 of which appear on the IUCN's Red List. At an estimated 80 to 86 percent, the island's endemicity rate in flora is high. This includes archaic types, as well as types associated with the country's diversity of natural habitats.

The inventory of marine and coastal biodiversity in the Indian Ocean is still incomplete and limited to only certain areas. Madagascar is home to 75 percent of the species found in shallow waters to the west of the Indian Ocean; about 5,500 of the 10,627 marine species inventoried are located in the Grand Recif of Toliara, the largest barrier reef and subject of the greatest study in the southwest Indian Ocean.

Madagascar's enormous biodiversity is gravely threatened by a host of human activities, ranging from the burning of vegetation to its unsound use. In 2000, 28,464 hectares of forests had been cleared and, in 2002, 15,572 hectares had been burned, with all the associated effects of erosion, siltation of mangroves, and so on.

In 2005, the country embraced the vision of "Madagascar Naturally," which effectively conveyed a policy favoring sustainable biodiversity management. Furthermore, Madagascar committed to tripling the size of its protected areas by 2008. Madagascar currently has 47 protected areas in its national network of parks and reserves, totaling 1.7 million hectares.

To respond to the government's desire to expand the surface area of protected areas in the country, it decided with the assistance of IUCN experts to establish a system of protected areas composed of the full range of categories and governance types, along with a corresponding legal framework.

Climate Change

Madagascar produced the first national communication report under the United Nations Framework Convention on Climate Change (UNFCCC) in 2003. This report provided an assessment of Madagascar's greenhouse gas emissions, climate change factors, and challenges facing the country in preparing for the climate change NAPA in 2006.

In past decades, Madagascar has experienced several extreme events related to present and past climate change. The most significant are cyclones, floods, and droughts. It seems that these disturbances are becoming more frequent and intense and are producing significant effects, such as loss of human life, reduction in agricultural and livestock production, destruction of infrastructure, degradation of natural resources (water, soil, and forests), and coastal erosion. These conditions are creating a precarious situation regarding food security, drinking water supply, irrigation, public health, and management of the environment and lifestyles. These effects are repeatedly placing the Malagasy population, along with their development activities, in a situation of heightened risk.

In 1997, coastline shrinkage ranged within an estimated 5.71 to 6.54 meters, and the risk of projected loss was an estimated 225 meters by 2100. The impact of climate change is evident in flooding of all low-lying coastal areas and shrinkage of marginal reefs, disruptions in ocean current systems, and a rise in sea level, leading to coastal erosion and saltwater infiltration. The ports, cultural and historical sites located close to the seashore, and beaches frequented by tourists are at great risk of degradation or even disappearance.

An inventory of greenhouse gases indicates that the main greenhouse gas emitted in Madagascar is carbon dioxide. The energy sector is the main source of these emissions. The residential subsector is the main consumer of energy (63 percent); however, given that most households use wood to meet more than 86 percent of their energy needs, emission levels are low. Instead, the use of fossil fuels by vehicles is the main source, accounting for more than 50 percent of energy sector emissions. Forest emissions and changes in land allocation account for 21 percent; agriculture only accounts for 14 percent. Forests in Madagascar are capable of absorbing more than 671,451 gigagrams of carbon dioxide. Based on this inventory, the conclusion was that Madagascar is a "storage country," with a sequestration capacity on the order of 240,000 gigagrams.

Studies have confirmed the high carbon sequestration capacity of Madagascar's forests (World Bank 2003a); the average for Madagascar's natural forests is an estimated 160 metric tons per hectare;

the number climbs as high as 400 metric tons per hectare in the humid forests of the east. Mangrove thickets are of particular interest, given that their carbon sequestration rate is high. Furthermore, the estimated mangrove surface area in Madagascar is more than 350,000 hectares.

Madagascar's capacity to adapt to climate change is low, owing to its difficult socioeconomic situation. Poverty not only places the poor in a vulnerable situation, it impairs their ability to react. The NAPA's establishment in Madagascar is intended to enable the country to address a number of its sources of vulnerability and respond to urgent and immediate needs on adapting to the detrimental effects of climate change.

International Waters

Madagascar has a long coastal perimeter (5,603 kilometers of shoreline and 270 islets). The continental shelf of about 117,000 square kilometers runs along the entire coastline. It is narrow on the east coast (three to five miles) and relatively wide on the west coast (30 to 60 miles). Beyond waters internal to its territory, Madagascar has an exclusive economic zone, whose surface area comprises 1,140,000 square kilometers.

Madagascar's marine and coastal ecosystems consist of about 4,200 square kilometers of marshes, 3,300 square kilometers of mangrove thickets, and more than 2,000 square kilometers of reefs. It has the largest surface area of mangrove thickets, of which 98 percent are located on the west coast in the Mozambique Channel. The mangrove thickets are home to commercial species of crabs and shrimp. The back mangroves (*tannes*) are suited to aquaculture, in particular shrimp, oyster, and brine shrimp farming (*artémiculture*).

Madagascar's coral reefs are typical coral formations of barrier reefs along the continental slope: fringing reefs that touch the coast and localized sandy cay reefs. The few coral reefs that exist along the east coast are not yet well known, unlike along the west coast, whose coral reefs, about 1,000 kilometers long and from 0.5 and 3.5 kilometers wide, are utilized much more. Given the diversity of habitats (hard, sandy, and muddy substrata), the coral ecosystems contain a great wealth of fauna and flora in terms of the number of groups and species as well as food or commercial stocks. Migratory fauna regularly traverse Madagascar's continental shelf and exclusive economic zone, including the humpback whale, which is a popular seasonal tourist attraction.

National fisheries production is estimated at 125,000 metric tons, of which 95,000 metric tons come from maritime fishing and 30,000 metric tons from continental fishing. In 2001, fisheries products contributed $160 million to national income, of which 73 percent came from shrimp production. Fishing accounts for 62,000 direct and 218,000 indirect jobs (World Bank 2003a).

The marine and coastal ecosystems of Madagascar are degraded, even threatened, by the overexploitation of natural resources for domestic or commercial purposes, sedimentation, pollution from coastal or upstream sources, and the effects of lax oversight of other sectors, such as tourism or aquaculture. Compounding these national environmental problems are regional issues related to the exploitation of marine resources, international pollution, oil spills, and heavy maritime transborder traffic.

Marine biodiversity conservation and protection of the marine and coastal environment are the focus of several national and regional projects and programs involving the various actors and sectors concerned. Within national environmental programs, participants are assigned responsibility for the marine and coastal environments,

establishment and management of protected marine areas, and promotion of ecotourism (ANGAP), as well as involvement of the local community in the sustainable management of marine and coastal resources (SAGE), among others. Regional GEF-financed programs focus, on the one hand, on the risks of and solutions to marine pollution from land or maritime transport or even oil spills at sea; and, on the other hand, on scientific, technical, institutional, and legal preparations for the sustainable management of major marine ecosystems in the western part of the Indian Ocean.

Land Degradation

Madagascar ratified the United Nations Convention to Combat Desertification (UNCCD) in 1996 and fulfilled its obligation to prepare three national reports and the UNCCD National Action Programme. The country prepared this program after drafting the PRSP, and took into account the NEAP's objectives. Several projects that are linked directly or indirectly to the convention are currently under way in Madagascar; the execution frameworks are rural development, environmental protection, and combating poverty.

The most severe forms of land degradation (most frequently, erosion craters called lavakas) are considered to be soil erosion of large watersheds caused by rain and wind. The current steady erosion by rain of wooded savannahs in Madagascar's highlands and in heavily cleared humid forest areas of the east is alarming. As a result, soils in the ecosystem are eroding at a rate of 7 to 57 metric tons per hectare a year in wooded areas and 14 to 114 metric tons per hectare a year in burned parts of natural forests (compared with 1.5 to 3.0 metric tons per hectare a year in natural forests alone).

Poverty lies at the heart of land degradation. Persons living in extreme poverty in the highlands of fragile and isolated watersheds are forced to engage in unsustainable land management, a situation that leads to land erosion and degradation. The resulting sedimentation degrades and leads to flooding in low-lying areas where other extremely poor population groups are also forced to live off rice crops whose productivity is reduced by siltation. Given the key role played by poverty, holistic approaches to sustainable agricultural intensification within watersheds are necessary. This calls for not only irrigation-based agriculture, but also, and especially, sustainable management of highland watersheds. Studies conducted in the east of Madagascar in 2001 by the Project of Support for the Management of the Environment point to a 50 percent reduction in rice production and the revenue of households affected by siltation (World Bank 2003a).

Persistent Organic Pollutants

Madagascar ratified the Basel Convention in 1999, the Rotterdam Convention in 2004, and the Stockholm Convention on Persistent Organic Pollutants in 2005. After signing the Stockholm Convention in 2001, Madagascar fulfilled its commitment to prepare a national profile on POPs in 2004 and to conduct an evaluation of the infrastructure and entities available for their management.

Madagascar does not produce pesticides or polychlorobiphenyls (PCBs), so the sole source is through imports. Except for DDT used exclusively in public health efforts, the regulatory provisions adopted by the government in 1993 (Ministry of Agriculture Decision No. 93-6225) to ban agricultural use of pesticides containing chlordane, dieldrin, aldrin, endrin, hexachlorocyclohexane, and DDT led to reduction in and discontinuation of imports of these active substances.

The production of dioxins and furans as unintended by-products is linked mainly to residues from the production of insecticides and polyvinyl chloride; pulp and paper industries, including chlorine bleaching of paper; incineration of hospital and municipal waste; use of coal and peat wood; exhaust gas from vehicles; and forest fires.

Serious problems linked to the production, import, export, and use of POPs have not yet been reported. However, the large quantities of pesticides used in the past in agriculture and to control locusts, the current use of DDT to combat malaria, and the PCBs used in transformers have the potential to create real problems for both humans and the environment. Certain characteristics of POPs, such as their persistence, bioaccumulation, and high degree of mobility, exacerbate these effects, despite the ban on the importation and incineration of virtually all outdated pesticides.

3.3 Legal, Institutional, and Strategic Framework for the Environment in Madagascar

Government Framework

Madagascar is a sovereign and secular democratic republic composed of 22 regions grouped into six autonomous provinces. The country's framework law is the constitution (Law 95-001 of October 13, 1995, amended by Law 98-001 of April 8, 1998). Madagascar has had three successive republics since its independence on June 26, 1960.

In the constitution, the rights and duties of citizens include the obligation to respect the environment (article 39). It considers the union of humankind with both its creator and with each other, as well as with nature and the environment, as fundamental. It accords special importance to the preservation of plant and animal wealth and resources for future generations. It also assigns primary responsibility to the state for the protection, conservation, and care of the environment by adopting appropriate measures.

Legal Framework

The general principles related to environmental protection are determined by laws. In addition to the constitution, the fundamental principles that guide Madagascar in determining its national priorities, policies, strategies, plans, and programs of action are largely based on the Rio Declaration, the National Environmental Charter (along with the National Environmental Policy, adopted through the 1990 Law 90-033), the PRSP, and the MAP. Underpinning these legal frameworks is the need for harmony between humankind and the environment.

In recent years, a significant number of legal provisions (orders, laws, decrees, and decisions) have been adopted to resolve problems related to environmental conservation, protection, and management. The importance of sustainable development has also been recognized as a way of offsetting human pressures on natural resources.

Environmental Policy, Plan, Strategy, and Priority

The major and highly diverse ecological habitats in Madagascar are among the largest biodiversity storehouses in the world. These ecosystems, with their irreplaceable fauna and flora, are highly vulnerable to human pressures and have been subjected to considerable degradation, particularly in the past 50 years. They are genuinely at risk of extinction.

The causes of degradation are numerous and interrelated and include low and stagnant productivity combined with rapid population growth, which exert pressure to extend agriculture by converting forests, which in turn leads to soil erosion

and further lowers productivity; weak land tenure rights and breakdown of traditional regulation mechanisms caused by greater migration; lack of basic productive infrastructure, market integration, inputs, and access to credit; widespread use of coal and firewood as a source of household energy (85 percent), requiring 10 million metric tons of wood a year; and poorly regulated commercial use of wood and weak governance of the forest sector, leading to illegal exploitation and hunting of prohibited species. According to Transparency International, Madagascar ranked 88th of 102 countries in the Corruption Perceptions Index in 2003 (World Bank 2004).

In response to these major challenges, in 1989 the Malagasy government adopted the ambitious 15-year NEAP investment program. Its objectives were to gradually end human pressures on the natural environment and ensure protection of representative samples of major habitat types in the country, while contributing to Madagascar's sustainable development by maintaining ecological goods and services.

The NEAP has the force of law by virtue of the adoption of the National Environmental Charter and the National Environmental Policy in 1990. The NEAP acknowledges the link between environmental protection and economic development and was divided into the three consecutive five-year programs known as Environment Programs I, II, and III.

In conjunction with the NEAP, the government integrated national policies and strategies on sustainable development to work in tandem with conservation activities through the UN Millennium Goals, PRSP, and recently, MAP. The institutional preparation of the Rural Development Action Plan (Decree 99-022 of October 9, 1999) and the government's renewed commitment to implementing this plan, which was launched in 2001, are reflected in the strengthened roles of the regional working groups on rural development. Including local organizations, NGOs, the private sector, local government units, and regional offices of the sectoral ministries, these groups take concrete action to execute the overall guidelines of the plan, which are adapted to conditions in the country's 23 agro-ecoregions.

Furthermore, Madagascar has aligned itself with international policies, strategies, and actions by signing several international conventions to conform and comply with their provisions and to benefit from international opportunities.

In Madagascar, the commitment of the various sectors to environmental protection and sustainable economic development is clearly set forth in various sectoral policies and relevant legal provisions.

Institutional Environmental Framework

Using the various legal provisions and to execute the different policies and strategies adopted by the country, several governmental, nongovernmental, and community institutions are playing important roles in problems related to environmental conservation and sustainable development to combat poverty. These different institutions are all involved in legal and judicial work.

The environmental sector came under the purview of the MINEFT in Madagascar for the first time in 1994. Since then, nine ministers have headed this ministry. The minister is the political focal point for relations with the GEF. The ministry's secretary general serves as the GEF operational focal point. Thematic focal points are responsible for the various conventions that involve GEF financial assistance.

The MINEFT bears primary governmental responsibility for environmental issues, although

virtually all government ministries are involved with environmental management. The various sectoral ministries have an environmental unit responsible for ensuring conformity with and compliance of their ministries with environmental issues. Each ministry has at its disposal a raft of regulatory and legal provisions setting forth the procedures for safeguarding and sustainability of natural resources. A number of the provisions are outdated, and new provisions have been drafted to bring them in line with the current situation regarding natural resources. These provisions meet all the objectives of the constitution, which enshrines environmental protection as a constitutional principle; and the National Environmental Charter, which clearly sets forth the working framework for implementation of the National Environmental Policy. These ministries also have entities responsible for the implementation of regulations at both the central and decentralized levels (by the decentralized administrative authorities).

As one of the state executing agencies of the NEAP, the General Directorate of Water and Forests has been provided with technical, material, and institutional capacity building to ensure the broad management of forest ecosystems other than protected areas during the three Environment Programs. The same applied, during Environment Program I and II, to the General Directorate of Property (part of the Ministry of Agriculture) for projects to improve land tenure and to the National Geographic Institute (attached to the Ministry of Territorial Development) for the provision of geographic data and information.

Despite the host of regulations and oversight entities, application of these provisions has never been sufficiently effective or comprehensive, owing largely to a dearth of material, human, and financial resources for these various services to cover the entire intervention zone, as well as the absence of coordination among the various oversight and monitoring entities in the various ministries. This situation prompted the state to discontinue performance of activities in certain areas to concentrate on administrative procedures and technical, legal, and judicial assistance. A number of components of the NEAP have therefore been assigned to independent institutional entities.

Nonstate agencies are generally considered companies, governed mainly by Oorder 60-133 of October 3, 1960; as NGOs, governed by Law No. 96-030 of August 14, 1997; or even at a local level, as community-based entities governed by Decree 2000-027 of January 13, 2000.

The ANGAP was established after the start of the NEAP Environment Programs to ensure the management of those national protected areas that were once managed by the General Directorate of Water and Forests.

The National Association for Environmental Actions was established at the start of Environment Program I to promote soil conservation, agroforestry, reforestation, and other microprojects. During Environment Program II, the association assumed responsibility for water and soil conservation management as well as management of the Regional Fund to Support Environmental Management.

The ONE was established during Environment Program I for the cross-cutting strategic components of technical, scientific, judicial, and legal support. During Environment Program II, the ONE was responsible for coordinating the execution of the NEAP, while executing the final environmental research components: support for regional and spatial approach management; policy, strategy, and mechanisms; environmental information systems; and secure local management. During

Environment Program III, the ONE is confining its work to environmental communication, education, and information activities as well as environmental impact studies.

To foster community-based management, management responsibilities for renewable natural resources were transferred to community-based organizations (CBOs), pursuant to Law 96-025 of October 30, 1996, and related implementing decrees and decisions issued since 2000. The SAGE, cofinanced by the GEF through UNDP and the government, is charged by the state with the mission of ensuring the development and capacity building of those community entities that are suited to application of the renewable natural resource transfer model that has been tested in seven reference sites called "on-site laboratories" in two support zones for protected areas (agricultural development areas), around the Sahamalaza National Park and the Lokobe and Tanilely protected zone complexes in northeast Madagascar, as well as the protected areas in Anakao-Nosy Ve in southwest Madagascar, respectively.

Coordination was different during and after Environment Program II. Before Environment Program III, the NEAP was executed as a joint program; Environment Program III was supported instead by a series of parallel projects, each of which was financed by its own donor, to ensure direct linkage between the sources of financing and results in the field, while avoiding the need for donor coordination of activities. Technical coordination of Environment Program I and II was provided by the ONE; coordination of Environment Program III was assigned to CELCO. In the case of donors, a multidonor secretariat was set up by multilateral donors (including the World Bank, UNDP, and the United Nations Economic Commission for Europe) and bilateral donors (including the U.S. Agency for International Development [USAID], Germany's Credit Institution for Rehabilitation and Development, France, and Norway), as well as NGOs (including Conservation International, World Wide Fund for Nature [WWF], and Wildlife Conservation Society) to ensure coordination of their activities and assistance to Madagascar in the environmental sphere during Environment Program II. During Environment Program III, general coordination was provided by a joint committee representing the various parties concerned and jointly chaired by the MINEFT secretary general and a donor representative.

Other than the NEAP, responsibility for most environmental activities—in particular enabling activities, regional Sub-Saharan projects, or those pertaining to the western part of the Indian Ocean, all derived from international conventions—has been assigned to thematic focal points, generally within the relevant units of ministries.

Main International Treaties, Conventions, and Protocols

As an island and given its national environmental issues with impacts on the regional and international levels, Madagascar has aligned itself with global issues by demonstrating its commitment to sign and ratify the main international treaties, conventions, and protocols, in particular those pertaining to the environment.

The Republic of Madagascar is eligible for GEF funding, because it has signed the principles of the Rio Declaration by concluding the 1992 convention and ratifying it in 1996. This commitment includes adhering to a sustainable method of production and consumption, pollution prevention, and respecting the capacity of ecosystems to ensure protection of the environment for future generations. Madagascar's commitment to resolve all aspects of environmental issues prompted the country to sign and legally ratify the international

conventions and protocols pertaining to all the enabling activities.

Madagascar has developed a legal system and environmental provisions based on the obligations set forth in the international conventions. The GEF has made a large contribution to fulfillment by Madagascar of the obligations and actions set forth in international conventions on the environment. As such, enabling activities cofinanced by the GEF have facilitated the establishment of national entities, preparation of national communications, and drafting of national reports pertaining to conventions and developments involving related projects. The MINEFT has a permanent unit responsible for international conventions.

Note

1. See www.instat.mg.

4. The GEF Portfolio in Madagascar

In the past 15 years, the GEF has provided about $36 million in grant financing to support global environmental projects in Madagascar. The focus of the support has been primarily on biodiversity conservation delivered through two FSPs integrated with the multidonor intervention to fund implementation of the Environment Program. This programmatic approach has been one of the most significant in the global GEF portfolio. Environment Program III is scheduled to conclude by 2010. The government has entered a new phase of comprehensive national programming for sustainable development based on the MAP;[1] at the same time it has also entered a new period of GEF funding through the RAF.

The two principal GEF Implementing Agencies, the World Bank and UNDP, have recognized the importance of the environment and Madagascar's unique biodiversity in their own strategies and frameworks (World Bank 2007a; UN 2003; UNDP 2007). The World Bank and UNDP have played a key role in supporting the government in establishing a programmatic approach to the environment, along with other bilateral donors such as USAID and the Credit Institution for Rehabilitation and Development–German Cooperation Enterprise for Sustainable Development. For the purposes of this discussion, analysis of GEF support (1994–2007) is broken down as follows:

- All national full- and medium-size projects completed or under implementation
- Enabling activities
- Regional and global projects (that is, projects shared by Madagascar and other countries)
- Small Grants Programme (SGP)
- Evolution of GEF project activities and support

4.1 Projects Included in the Evaluation

The following criteria were used to select projects for further analysis:

- Activities were exclusively carried out in Madagascar (national projects) and were under implementation or completed; this excludes all pipeline activities and canceled pipeline projects.
- Activities carried out in Madagascar were part of regional or global projects that were under implementation or completed, with significant policy-based and/or demonstration and pilot activities within Madagascar; this excludes all pipeline activities.[2]

These criteria were used to define a sample for analysis with available resources (budget and time). Table 4.1 presents the group of activities, based on these criteria, that this evaluation considered.

Table 4.1

GEF-Supported Projects in Madagascar Included in the Evaluation

Project title	Focal area	GEF Agency/ national executing agency	Modality	GEF support (million $)	Total cost (million $)
Completed national projects (6)				**20.82**	**155.67**
Environment Program Support Project	BD	WB/UNDP/GoM	FSP	20.20	155.00
Preparation of National Biodiversity Strategy Action Plan and 1st National Report to the UNCBD	BD	UNEP/GoM	EA	0.03	0.03
Consultations for the Second National Report on Biodiversity (add-on)	BD	UNDP/GoM	EA	0.03	0.04
Clearing House Mechanism	BD	UNEP/GoM	EA	0.01	0.02
Preparation of the Initial Communication related to the UNFCCC	CC	UNDP/GoM	EA	0.35	0.35
Preparation of a National Action Program to Adapt to Climate Changes	CC	WB/GoM	EA	0.20	0.23
National projects under implementation (4)				**15.17**	**151.21**
Third Environment Programme	BD	WB/UNDP/GoM	FSP	13.50	148.90
Participatory Community-based Conservation in the Anjozorobe Forest Corridor	BD	UNDP/Fanamby	MSP	0.98	1.55
Biodiversity Enabling Activities Add-on: Assessment of Capapcity Building Needs and Establishment of a National Clearing House Mechanism	BD	UNEP/GoM	EA	0.19	0.24
Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants: National Implementation Plan for Madagascar	POPs	UNEP/GoM	EA	0.50	0.52
Completed regional and global projects (3)				**5.14**	**8.37**
Western Indian Ocean Islands Oil Spill Contingency Planning	IW	WB/IMO/GoM	FSP	3.50	4.99
Coral Reef Monitoring Network in Member States of the Indian Ocean Commission within the Global Reef Monitoring Network	BD	WB/GoM	MSP	0.74	1.58
Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD	LD	WB/GoM	MSP	0.90	1.80
Regional/global projects under implementation (5)				**169.35**	**1,193.93**
Demonstrating Cost-Effectiveness and Sustainability of Environmentally-sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa	POPs	UNEP/WHO/GoM	FSP	5.87	11.86
Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project	IW	WB/GoM	FSP	11.70	26.70
Programme for the Agulhas and Somali Current Large Marine Ecosystems: Agulhas and Somali Current Large Marine Ecosystems Project	IW	UNDP/GoM	FSP	12.92	31.18
Addressing Land-based Activities in the Western Indian Ocean	IW	UNEP/GoM	FSP	4.51	11.41
Regional Strategic Investment Program for SLM in Sub-Saharan Africa	LD	WB/GoM	FSP	134.35	1,112.78

Note: BD = biodiversity; CC = climate change; EA = enabling activity; GoM = government of Madagascar; IW = international waters; LD = land degradation; WB = World Bank.

All national FSPs, MSPs, and enabling activities were included in the evaluation, and 8 of 13 regional or global projects (completed or under implementation) were included in the evaluation sample.

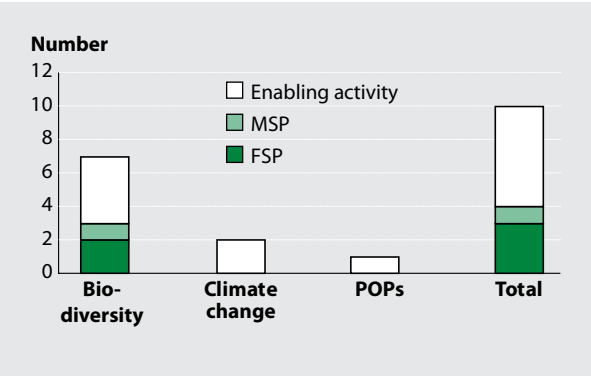
GEF National Projects by Focal Area and Modality

Madagascar currently has six completed GEF projects and four projects under implementation.

Completed projects include one FSP in the biodiversity focal area and five enabling activities—three in biodiversity and two in climate change—these represent GEF funding of $21.03 million and a total of $155.95 million. Projects under implementation include one FSP and one MSP in biodiversity and one enabling activity in biodiversity and one in POPs; these account for $15.16 million in GEF funding and total funding of $151.21 million. Figure 4.1 provides more details.

Figure 4.1

GEF National Projects in Madagascar by Focal Area and Modality



Note: Includes both completed projects and those under implementation.

The largest focal area supported in the GEF Madagascar national portfolio is biodiversity conservation, which accounts for 70 percent of the supported projects. Climate change accounts for 20 percent and POPs for 10 percent. In the case of climate change and POPs, the focus is on enabling activities to assist government in the development and elaboration of plans, strategies, and environmental policy.

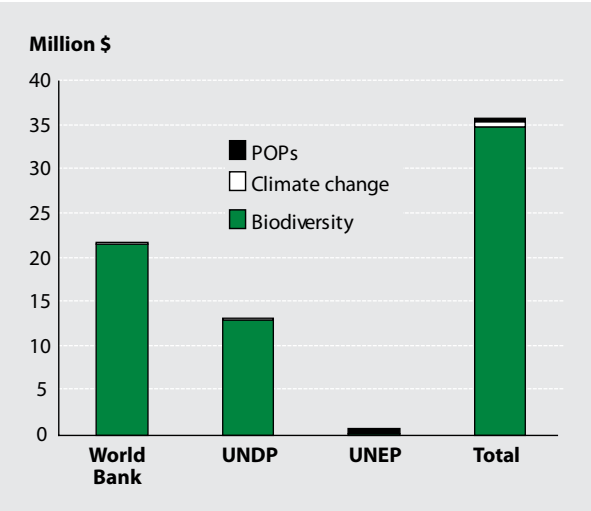
GEF National Projects by Implementing and Executing Agency

The main GEF Implementing Agencies in Madagascar are the World Bank (61 percent of funding) and UNDP (37 percent of funding) for national FSPs and MSPs and also some major regional initiatives, such as the sustainable land management (SLM), marine highway, oil spill, and Programme for the Agulhas-Somali Current Large Marine Ecosystem (ASCLME) projects, in which Madagascar is a partner with other regional nations. The United Nations Environment Programme (UNEP) accounts for the remaining 2 percent of funding in Madagascar and implements three enabling activities and some of the regional initiatives in international waters and POPs.

Figure 4.2 shows the project financing for national FSPs and MSPs and enabling activities supported by the GEF and disaggregated by Implementing Agency and focal area. The figure illustrates the overwhelming dominance of the biodiversity focal area (about $36 million) and of the World Bank ($21 million of funding). The other focal areas have only received funding for enabling activities of $0.01 to $0.5 million to assist with policy and regulatory development, as well as assisting

Figure 4.2

GEF Funding for National Projects in Madagascar by Agency and Focal Area



Note: Includes both completed projects and those under implementation.

Madagascar in fulfilling reporting obligations to the environmental conventions.

The relative dominance of the World Bank and UNDP is due in part to the presence of in-country expertise and, hence, the ability to meet with stakeholders to foster the development of project proposals. Both Agencies have been able to monopolize access to GEF funding through their long engagement in the environment sector.

The World Bank has implemented three projects in two focal areas: two FSPs supporting biodiversity conservation (Environment Program II and III with UNDP) and one enabling activity supporting the NAPA. The two FSPs (one completed and one under implementation) that address biodiversity conservation focus primarily on supporting Madagascar's protected areas.

UNDP has implemented five national projects: two FSPs and one MSP supporting biodiversity conservation (Environment Program II and III, and the Anjozorobe project), as well as two enabling activities supporting biodiversity and climate change convention reporting. The two FSPs (one completed and one under implementation) and the MSP have tended to address both protected areas, capacity development for mainstreaming, and civil society and community involvement in conservation.

UNEP's GEF national portfolio is small, with only two enabling activities (one completed and one under implementation) in biodiversity and POPs. Neither the African Development Bank, the International Fund for Agricultural Development,[3] the United Nations Industrial Development Organization, nor the Food and Agriculture Organization of the United Nations—all of which are GEF Agencies—have a national GEF project portfolio; this is in part attributable to a lack of opportunities and in-country expertise, which is required to develop project proposals with the government and also Agency-specific priorities that restrict options for accessing GEF funding (see chapters 6 and 7).

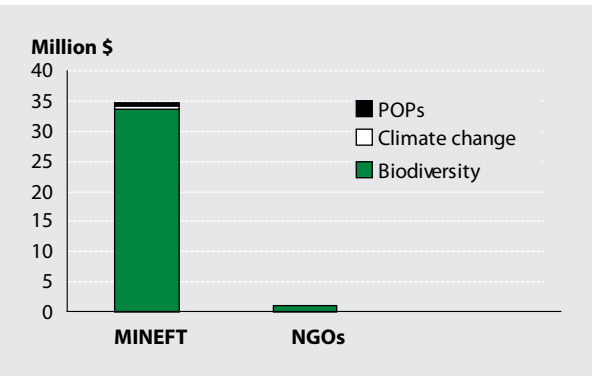
The government of Madagascar is legally the executing agency for 9 of 10 national GEF projects, but the actual executing agencies have tended to be quasi-governmental institutions such as ONE, ANGAP, SAGE, and CELCO. The MINEFT now has minimal involvement in the direct day-to-day execution of the GEF portfolio and little capacity to control, implement, or supervise it effectively (see chapters 5 and 6). The only national MSP is implemented by Madagascar's largest environmental NGO, Fanamby (see figure 4.3).

International NGOs such as WWF, Wildlife Conservation Society, Conservation International, and a host of others have played a significant role in supporting the GEF biodiversity portfolio in Madagascar, as well as having significant programs of their own, such as Conservation International's Critical Ecosystem Partnership Fund.

There has been no private sector execution of GEF FSPs and MSPs. But Madagascar's increasingly

Figure 4.3

GEF Funding for National Projects in Madagascar by Executing Agency and Focal Area



Note: Includes both completed projects and those under implementation.

active extractive industries are funding some small conservation and community development projects adjacent to their operations.[4]

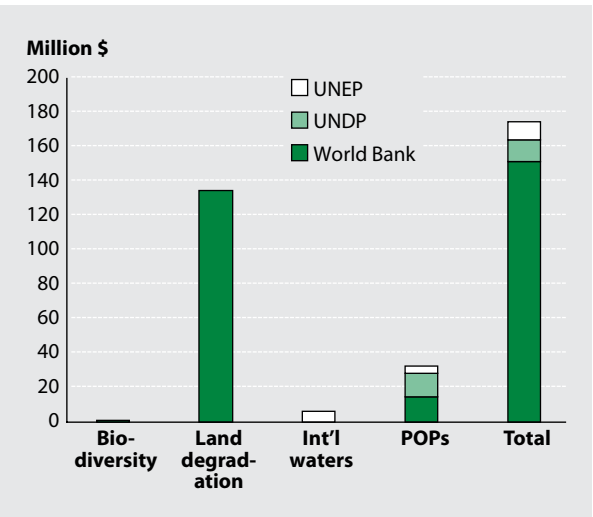
Madagascar Regional Projects by GEF Agency and Focal Area

Madagascar has significant involvement in regional and global projects. Since 1994, it has participated in 13 such projects. Eight regional projects are considered in this evaluation (see figure 4.4): three of them have been completed and five are currently under implementation, for a total of $174.5 million.[5] These projects are as follows:

- One biodiversity MSP implemented by the World Bank and completed in 2005 addressing coral reef monitoring ($0.74 million)
- One POP FSP implemented by UNEP demonstrating alternatives to DDT for malaria control ($5.87 million)
- Two land degradation projects implemented by the World Bank for a total of $135.25 million: one MSP helping countries elaborate UNCCD national reporting (completed) and a strategic investment multidonor program to address land degradation in Africa (under implementation)
- Four international waters projects totaling $32.64 million—two FSPs implemented by the World Bank focusing on reducing marine pollution risks from shipping in the Western Indian Ocean, one FSP implemented by UNDP focusing on marine ecosystem conservation of the Agulhas-Somali current large marine ecosystems, and one FSP implemented by UNEP addressing land-based coastal pollution threats in the Western Indian Ocean

Figure 4.4

GEF Funding for Regional and Global Projects Including Madagascar by GEF Agency and Focal Area



Note: Includes both completed projects and those under implementation.

Small Grants Programme

Madagascar's participation in the GEF SGP is recent, as the program was approved in February 2005. The program's national coordinator, hired in October 2006, began working full time in January 2007.

The GEF SGP National Steering Committee comprises civil society representatives; NGOs; independent individuals specializing in biodiversity, climate change, and socioeconomics; representatives of the federation of local communities and UNDP; and the GEF operational focal point in Madagascar on behalf of the MINEFT. The committee helped develop the SGP Madagascar country program strategies, whose first version was approved in April 2007. These strategies relate to the use of GEF RAF funds allocated to the SGP between July 2007 and June 2010 in accordance with the December 2006 decision to place the entire SGP for Madagascar under the RAF. The RAF committee comprises the GEF operational focal point, the U.N. Convention on Biological Diversity (UNCBD) focal point, representatives

of the GEF Implementing Agencies (UNDP and the World Bank) and NGOs, and the GEF SGP national coordinator. This committee is responsible for approving projects submitted under the RAF. Certain National Steering Committee members, such as ANGAP, UNESCO's World Heritage Program, the Tany Meva Foundation, and the SGP national coordinator, are also members of the Environment Program III joint committee.

The GEF's overall allocation of $400,000 for the 2007 SGP for Madagascar has been fully committed to 27 community projects selected by the National Steering Committee from among about 50 proposals submitted. The committee proposed the negotiation of an increase in RAF allocations for the SGP amounting to $500,000 for July 2007–June 2008, including 10 percent for operational management and $800,000 a year for the second RAF period of July 2008–June 2010, including 10 percent for operational management.

The RAF allocation in GEF-4 to the SGP must be used to implement the national priorities set forth in the MAP 2007–12. The SGP mission, therefore, is to provide local communities and civil society with opportunities to assume greater responsibility for protecting the environment while improving their living standards. Harmonization and alignment of the SGP strategy with the local development framework are necessary to ensure that priority is accorded to projects coming directly from the local community (see table 4.2). In order to ensure greater sustainability of the financing structures, the Tany Meva Foundation was proposed as the SGP host. This foundation works in complete synergy with the SGP to ensure a high-quality, effective, and positive impact, by sharing tools and experiences, and through complementarity and resource mobilization.

The execution, monitoring, and evaluation of GEF SGP projects in Madagascar are carried out by

Table 4.2

SGP Strategy in Madagascar for GEF-4

Phase	1st year	2nd year	3rd year	4th year
Financial resources ($)	400,000 (SGP core fund)	500,000 (RAF-4+ cofinancing)	800,000 (RAF-4+ cofinancing)	800,000 (RAF-4+ cofinancing)
Geographic area	• Southwest (>70%) South and East (<30%)		• Southwest (>60%) • South, East, Central, or other priority areas (<40%)	
Thematic coverage	• Reduction of natural resource degradation in the dry forests and coastal and marine areas of the sites to be included on the World Heritage List • Promotion of collaborative governance with a high level of responsibility assumed by the communities in the areas that are protected or preserved by the communities • Follow-up actions and strategic projects			
	• Projects that clearly help to solve problems or achieve objectives • Development of regional strategies and bases		• Increased community and local organization management capacity building • Multifocal strategic projects	
Target groups	Rural communities, union, or federation of local organizations, community or collaborative management structures, NGOs supporting the local community projects			
	• In particular, dynamic local communities and organizations as well as those that are vulnerable to exclusion, which could widen the gap between rich and poor.		• Groups or communities that are vulnerable or under stress (marginalized and youth) • Network of local organizations and communities.	

the national coordinator, with local coordination support in collaboration with

- UNDP for administrative and financial procedures;
- the National Steering Committee for the development and approval of guidelines and strategies of the GEF SGP program for Madagascar, selection of projects to be funded, partnership development, mobilization of additional resources, and promotion of the program among national and international stakeholders;
- the local advisory body for site and project status analyses and development of the regional strategy;
- local partners, such as ANGAP, WWF, UNESCO, and the Tany Meva Foundation, to share experiences, tools and resources, communications, capacity building, and M&E;
- national, regional, and local platforms to establish baselines, synergies, and complementarities for results and outputs from several programs and institutions, and to support the national database.

Most GEF SGP interventions are executed around the dry forests of the southwestern section of Madagascar; a few are carried out in the southern and eastern sections of the island in view of their importance as complementary with the sustainable management of threatened natural resources and the management of protected areas. The 27 projects, with average funding totaling $15,000, cover terrestrial, coastal, and marine development. With the exception of two projects to be entrusted to local NGOs, all these projects come from communities organized into an association or CBO. The projects collaborate with local partners, such as WWF, which is responsible for an MSP on dry forests; ANGAP, which is responsible for protected areas; and SAGE, which is responsible for community development in zones supporting the protected areas.

Madagascar's experiences with small grants outside of the GEF are primarily those of the Tany Meva Foundation and the Conservation International's Critical Ecosystem Partnership Fund. Both of these have a high disbursement rate for funding of a large number of small- and medium-size projects (603 projects for the foundation for more than 10 years totaling about $700,000 annually, and 37 projects for the fund in a five-year period for about $4 million).

GEF Projects by Objective

Table 4.3 summarizes the aggregated objectives addressed in the project and SGP program activities supported by the GEF in Madagascar. This summation again reflects the dominance of biodiversity conservation in project activities.

Evolution of GEF Funding in Madagascar for National and Regional Projects

The GEF began its project development activities in Madagascar between 1994 and 1996 with preparations for the initial national FSP—Environment Program II—and regional projects (see figure 4.5 and table 4.4):

- No projects were developed during the GEF pilot phase (1992–94).
- During GEF-1 (1995–98), only one national FSP (Environment Program II), two national enabling activities addressing biodiversity, and the regional oil spill project to mitigate risks associated with tanker shipping in the Western Indian Ocean were approved. A combination of factors underlie the lack of national approvals at this time: the GEF's substantial commitment to Environment Program II to a certain

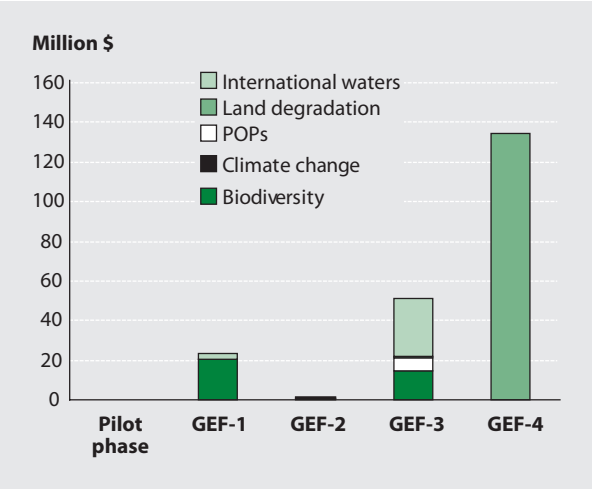
Table 4.3

Main Activities of Evaluated National and Regional/Global Projects in Madagascar, by Focal Area and Modality

Focal area	FSP	MSP	Enabling activity	SGP
Biodiversity	• Sustainable management of natural resources • Establishment and management of protected areas • Development actions • Management of marine ecosystems • Information support and policy development • Sustainable financing • Integration of local populations	• Community-based conservation • Establishment and development of new protected area (Durban Vision)	• National biodiversity strategies, studies and reporting • Capacity building in biology • Data and experience sharing	• Protection of Marine biodiversity and coral reef • Development actions • Community participation on establishment of Protected Area • Community sustainable natural resource management • Biogaz waste transformation • Alternative to Charcoal use and production • Dune fixation for Mangrove protection against silting up • Agriculture for river protection and diversification of paisan income • Community Ecotourism and implementation of new protected area
Climate change			• National structure and communication • Preparation of NAPA	
International waters	• Legal and institutional frameworks relevant to conventions; • National and regional planning and strategies • National and regional capacity; • Sustainable financial and institutional agreements and regional cooperation • Scientific data and information bases			
Land degradation	• Promoting SLM in 4 priority watersheds, by improving agriculture productivity and natural resources conservation practices addressing local drivers of land degradation and accounting for the superimposed effects of climate change	• Capability enhancement of resource users to place SLM in the main stream of development practice and policy at local and national levels for the mutual benefits of local livelihoods and global environment	• National action plan, structure and reporting • National coordination structure	
POPs	• Demonstrating cost-effective, environmentally sound, and locally appropriate alternatives to DDT, ensuring their sustainable use through strengthened national and local capacity for malaria control		• Inventory of POPs • National capacity assessment • National strategies, action plan and reporting • Implementation of national comity of coordination • Establishment of execution national plan	

Figure 4.5

GEF Funding for Madagascar Projects by Replenishment Period and Focal Area



Note: Includes both completed projects and those under implementation; does not include SGP projects.

extent crowded out other opportunities for national projects, and submissions from the government and/or Implementing Agencies were lacking. Total GEF funding for GEF-1 was $23.74 million.

- In GEF-2 (1999–2002), no national FSP was approved. This period coincided with low capacity within the government and political instability during the presidential elections. Two enabling activities were approved—a follow-up activity to the UNCBD report and an initial climate change enabling activity to help the government submit its first national report to the UNFCCC—and one regional MSP aimed at improving the monitoring of coral reefs. Total GEF funding for GEF-2 was $1.12 million.
- In GEF-3 (2002–06), GEF national and regional operations in Madagascar significantly increased with the approval of one large FSP investment (Environment Program III) and one MSP (Anjozorobe). Three enabling activities were also approved for, respectively, climate change national adaptation planning, second phase support to the biodiversity clearinghouse mechanism, and assistance for a POPs implementation plan. Five regional projects involving Madagascar were also approved (four FSPs and one MSP), focusing on international waters and

Table 4.4

GEF Funding to Madagascar by GEF Phase, Focal Area, and Agency
Million $

Factor	Pilot phase	GEF-1	GEF-2	GEF-3	GEF-4
National projects	0	20.24	0.38	15.37	0
Biodiversity	0	20.24	0.03	14.67	0
5Climate change	0	0	0.35	0.2	0
Land degradation	0	0	0	0	0
POPs	0	0	0	0.50	0
Multifocal	0	0	0	0	0
World Bank	0	12.20	0.74	9.70	0
UNDP	0	8.20	0.38	4.98	0
UNEP	0	0.04	0	0.62	0
Regional/global	0	3.50	0.74	35.99	134.35
Cofunding	0	134.77	0.01	136.10	1,112.78

Note: Cofunding to regional projects is not included. Data do not include funding for SGP.

land degradation. Total GEF funding for GEF-3 was $51.27 million.

- In GEF-4 (2006–10), one regional FSP was approved (outside the RAF) focused on a strategic investment program to reduce land degradation. Total GEF funding for GEF-4 was $134.35 million. Under the RAF, Madagascar received an individual allocation for biodiversity conservation of $24.3 million, of which $12.15 million must be programmed in the first two years of RAF implementation. To date, Madagascar has only used $0.550 million of its initial allocation for biosafety.[6] If Madagascar fails to use the allocation by the end of GEF-4, it will lose any remaining unallocated funding in 2010.

Table 4.5 shows variations in cofinancing across the GEF replenishment periods, from a cofinancing ratio of 6.6 in GEF-1 to a low of 0.02 in GEF-2 and then up to 8.8 in GEF-3. These variations are caused by the start and completion of Environment Program II and the beginning of Environment Program III projects, which started in GEF-1 and GEF-3. Madagascar did not develop any FSPs or MSPs in GEF-2. Overall, Madagascar has achieved average cofinancing of $7.50 for every GEF dollar in funding primarily because of the multidonor Environment Programs. The result is that Madagascar greatly exceeds the 2005 average GEF cofinancing ratio of 4.1 (GEF EO 2006).

Table 4.5

Cofinancing/GEF Contribution Ratio by GEF Replenishment Period

GEF replenishment period	Ratio
Pilot phase	n.a.
GEF-1	6.60
GEF-2	0.02
GEF-3	8.80
Average[a]	**7.50**

Note: n.a. = not applicable.

a. Total cofinancing divided by GEF contribution.

Summary

National projects have used (or are using) nearly $36 million of GEF support for national and global environmental priorities in Madagascar. In terms of investment, the focus is on national FSPs and, to a significant degree, depends on the outcomes of Environment Program III. More than 90 percent of the total investment went to two FSPs, whereas support to MSPs and enabling activities seems limited in terms of finances as well as number of projects.

Madagascar has received support to fulfill all the reporting requirements from all the conventions that are eligible for GEF finances, but some of the enabling activities are ongoing and the reports pending (biosafety and National Capacity Self-Assessment).

4.2 GEF in the Context of Official Development Assistance

Madagascar depends highly on foreign aid flows. Official development assistance to Madagascar in the past decade has fluctuated considerably—from about $320 million a year in 2000 to $1.1 billion a year in 2005 (about 30 percent of gross national product) including all sectors, not just the environment—according to donor confidence in the government and political crises. According to the latest country assistance strategy evaluation (2006), even though Madagascar is one of the poorest countries in Africa, it is not among the top African aid recipients. The main donors are the International Development Association (World Bank) and European Union, followed by the United States and France; other bilateral donors, such as Japan, Germany, Norway, Italy, Spain, and Switzerland, play key roles in such sectors as

governance, environment, education, and rural development. France was on average the most active bilateral development partner and, between 1980 and 2005, provided 30 to 45 percent of overall official development assistance. Multilateral partners are generally much stronger than bilateral partners in Madagascar. The GEF's average annual contribution of around $2.7 million a year makes it one of the country's smaller partners, but is is highly visible in the environment sector and is, for instance, an important donor for biodiversity conservation alongside USAID and Germany. In biodiversity, the GEF could be more visible; it is generally perceived as a grant facility managed through the World Bank and UNDP with limited identity of its own. Interviewees tended to refer to the GEF as a "silent or invisible partner."

4.3 National Budget Expenditures in the Environment Sector

The World Bank public expenditure review (2005) revealed that, although environmental expenditures increased between 1997 and 2001 with an annual average growth rate of 20 percent, national funding for the environment sector has remained fairly weak, falling from nearly 4.5 percent to 2.27 percent (see table 4.6). These cuts were mainly due to the phase-out of Environment Program II. To compensate, the government slightly increased

Table 4.6

Madagascar Environment Sector Central Government Allocations and Expenditures, Selected Years
Million $

Allocation/expenditure	1997	1999	2001	2002	2003	2004
Budget allocation						
Total (MGF bill)	99.53	99.63	173.84	242.24	161.71	172.65
Total as % of total budget	3.05	2.03	2.50	3.28	2.44	2.26
Real allocation (1997 prices)	99.53	87.54	131.92	161.82	109.74	108.16
Actual expenditures						
Total (MGF bill)	123.44	204.54	250.30	101.12	137.76	
Total spending as % of total budget execution	4.50	5.23	4.81	3.16	2.27	
Total spending as % of GDP	0.68	0.87	0.84	0.34	0.41	
Total real spending (1997 prices)	123.44	179.72	189.95	67.55	93.49	
Real growth (%)		16.60	12.86	(64.44)	38.40	
Budget execution rates[a]						
Budget execution	124.0	205.3	144.0	41.7	85.2	
EP2 expenditure	136	305	114	28.2	0	
Grants	93	108	216	69.5	84.1	
Actual EP2 grants (MGF bill)	63	113	170	5	3	
EP2 grants as % of environmental expenditures	51.04	55.25	67.92	4.94	2.18	
EP2 grants as % of total grants as per national grant budget	8.57	14.68	21.68	4.59	0.33	
Total grants as per national grant budget (MGF bill)	735	770	784	109	920	

Source: World Bank 2005.

Note: Figures for 1997–2003 fall within EP2 implementation; EP3 began in 2004.

a. Actual expenditure/allocated budget.

its domestic resources from 1.7 percent in 2001 to 2.3 percent of the total budget in 2003.

The public expenditure review also showed that donor funding is an important part of the environment budget: reflecting 55 percent of environment expenditures in the late 1990s, supported directly through Environment Program II until 2001, and continuing under Environment Program III. The environment sector has benefited little from the debt relief for heavily indebted poor countries; the government originally committed 10 percent to environment (of 8 billion Malagasy francs), but only 1 percent was committed between 2001 and 2004 according to the public expenditure review.

It becomes clear that the national funds allocated to address environmental issues highlighted in chapter 3 are quite limited given the magnitude of the challenges and the reliance of economic activities on environmental resources in Madagascar. This is also challenging given that revenues earned from most protected areas in Madagascar are not sufficient to cover management costs (see chapter 5).

Notes

1. Referred to as a second-generation poverty reduction strategy paper (World Bank and IMF 2007).
2. Implementation status and recommendations from Malagasy stakeholders were also taken into account in selecting regional and global projects for evaluation.
3. Per communication with the International Fund for Agricultural Development, January 2008.
4. For example, Rio Tinto has funded conservation and community development activities in and around its titanium operations at Fort Dauphin, arguably setting the standard for socially responsible corporate mining in Madagascar's mining sector.
5. Funding is according to project and not by country. In most cases, it is not possible to determine the precise country allocation for regional and global projects.
6. Not included in the evaluation, as it is not under implementation.

5. Results of GEF Support to Madagascar

This chapter reviews the results, effectiveness, and sustainability of GEF support in the context of both the country's and the GEF's goals and priorities. The following key questions were used:

- What are the aggregated results at the focal area and country levels?
- What is the likelihood that objectives will be achieved for those projects that are still under implementation?
- What are the results (outcomes and impacts) of completed and ongoing projects?
- What is the sustainability—financial, institutional, socioeconomic, and environmental—of GEF support?

This chapter reviews the results of the various projects supported by the GEF. It needs to be made clear that GEF support is provided through partnerships and coordination with (and through) many other partners from local communities, NGOs, local and national governments, and multilateral and bilateral institutions and donors. As highlighted in chapter 2, the interconnected nature of support makes it challenging to consider GEF support independently from those of other donors. Therefore, this chapter does not attempt to attribute development results directly to the GEF, but evaluates the contribution of GEF-supported operations to the overall process of solving environmental (global and national) issues, as well as improving capacities and sustainability. Results are measured specifically against the overall expected outcomes, such as advances in policies and strategies, catalytic and replication effects, institutional sustainability, and capacity building. The information provided here was compiled from interviews, reviews of existing project documentation, and field visits.

5.1 Global Environmental Benefits and Potential Results

Biodiversity

Completed National Projects

GEF support to Madagascar for biodiversity is related to donor support for the implementation of the Madagascar NEAP started in 1990 with the first phase known as Environment Program I. The NEAP's broad aims included managing water catchments, sustainably managing natural resources, protecting national heritage and biodiversity, developing ecotourism, improving rural and urban sanitation, and developing management tools for monitoring and management of the environment. The principal objectives of Environment Program I generally mirrored those of the NEAP and were to address increasing environmental degradation caused by human pressure on natural resources. Before the creation of the GEF, the World Bank (specifically, the International Development Association) and

other bilateral donors provided funding for the implementation of Environment Program I. As already noted, GEF funding for FSPs did not begin until late in the GEF-1 replenishment period.

Environment Program I was completed in mid-1997. Although the World Bank's Project Performance Assessment Report (2007b) by the Operations Evaluation Department (now the Independent Evaluation Group) concluded that Environment Program I did not achieve its objectives, it did result in the development of a new forest policy and adoption of new management techniques. The program also strengthened ANGAP capacity and went some way to integrating environmental and social considerations into protected area management and training through integrated conservation and development projects. Several key findings emerged from the Environment Program I experience. Environmental protection institutions created by the program did not have clear goals and were not sufficiently backed by regulatory mandates, which impeded implementation of activities in the field. Following from this, horizontal and vertical cooperation among agencies and institutions was never achieved as expected, which undermined the program's sustainability. The major lessons drawn from the initial phase included the following:

- Program objectives and implementation responsibilities should be realistic and as specific as possible, reflecting the local environment in which the program will be implemented.
- Allocating financing on a component-by-component basis to different executing agencies can undermine program synergy and objective achievement.
- Community participation in management and maintenance of the rural environment can be facilitated through demonstrated financial attractiveness (for example, incentives and small grants).
- Changing human behavior and developing community-based approaches to managing protected areas will likely require a long-term commitment.
- Functioning M&E systems to track progress toward results are necessary.

These lessons were incorporated into the design of Environment Program II, which was ready to begin implementation upon closure of Environment Program I (World Bank 1998, 2000).

Environment Program II began implementation in late 1997 and was completed in 2003 as the second phase of support for the NEAP. The objectives of the program were to reverse current environmental degradation trends; promote sustainable use of natural resources, including soil, water, forest cover, and biodiversity; and mainstream environmental considerations into the macroeconomic and sectoral management of the country. The GEF provided nearly $20 million of financial support to the program, directing the funding at four components: multi-use forest management ($5 million), national park management and ecotourism ($7.8 million), regional and local environmental planning ($3 million), and coastal and marine conservation ($2 million). Of these, the World Bank implemented the first two components and UNDP the others.

Like its predecessor, the project was complex, involving both multilateral and bilateral donors with more than 10 components. In 2001, the objectives of Environment Program II were formally revised after the midterm review, because they were widely perceived as too ambitious and not achievable. Specifically, the midterm review realized that "reversing" environmental degradation was not realistic, given the program's resources

and time frame. The revised objectives were to reduce environmental degradation by increasing the sustainable use of natural resources, including soil, forest cover, and biodiversity in targeted areas; and establishing conditions for mainstreaming sustainable environmental and natural resource management.

Environment Program II was completed in 2003. The main results associated with GEF-funded components included the following:

- Notably, through improved management and protection at the site level, the project contributed to a decrease in the deforestation rate inside protected areas to 0.6 percent a year, compared with 1.6 percent a year in areas not under protection.
- The World Bank–GEF component on the multi-use of forests attempted to promote improved community-based management through secure local management, involving nearly 300 villages. More than 200 forest management contracts were signed during the implementation of Environment Program II, but capacities at the local level remain low, and the program failed to resolve overarching land tenure issues.
- The protected area system expanded significantly from 21 to 46 reserves, covering about 3 percent of the island's area, still well below the IUCN-recommended standard of 10 percent.

Box 5.1 provides more detail on the positive results of GEF funding to Environment Program II.

The Project Performance Assessment Report and interviewees highlighted the following shortcomings of Environment Program II:

- The complexity of the project and number of donor partners and government institutions involved made effective donor coordination difficult to achieve.
- Similar to Environment Program I, the second phase suffered from overly ambitious objectives and lack of a proper monitoring system to track progress toward results.
- The efficiency of the program was low, because of scattered program activities, lack of coordination, poor institutional capacities in the ministries, and weak sustainability.
- The program contributed to establishing several new institutions (implemented through the ONE), but did not contribute to improving capacities within the ministries. The sustainability of the new institutions is tied predominantly to donor funding, as donors now act as "service providers"; the ministry under Environment Program III remains weak.

The lessons from Environment Program I did not transfer effectively to Environment Program II, and the evaluations of both highlight similar shortcomings, relating to coordination of donor and government activities, unrealistic project design, poor monitoring during implementation, and persistent institutional capacity problems. This has led to wide acknowledgement of poor cost-effectiveness and the inability of large investments (more than $240 million for Environment Program I and II) to solve sustainability issues, be they financial, institutional, or socioeconomic.

In terms of completed biodiversity enabling activities, GEF assistance channeled through three projects at the national level (UNCBD 1 and 2 and Clearing House Mechanism 1 projects) enabled Madagascar to provide the first national monograph in 1997, the second national reports and biodiversity national strategy in 2002, the third national report in 2005, and the periodic environmental instrument panel through the data

Box 5.1

Environment Program II: Successful Project Results

The 2007 Project Performance Assessment Report observed the following results from Environment Program II:

- The program achieved its objective of increasing the sustainable use of natural resources, including soil, forest cover, and biodiversity, in target areas. It substantially contributed to reducing deforestation in protected areas at a rate one-fourth to one-half the rate outside protected areas. In addition, the number of protected areas increased by 24 (tripling the protected area system). The program reduced the incidence of slash-and-burn (*tavy*) agriculture, reduced soil erosion, and improved soil fertility in target areas. However, during the time of the NEAP (1990 to 2005), Madagascar still lost 6.2 percent of its forest cover.
- Ecotourism revenues increased fivefold from $50 million in 2000, although income generation from park entrance fees only accounts for about 7 percent of current annual costs.
- The program moderately achieved its objective of establishing conditions for mainstreaming sustainable environmental and natural resource management at the national level. Sectoral policies now require environmental impact assessments for mining, fisheries, aquaculture, industry, and so on; but, environmental impact assessment efficiency remains low, although a "polluter pays" principle now applies to investment decisions. The goal of mainstreaming environmental units in central ministries and regional cells was only partly achieved. The situation appears to be better in both the mining and transport sector ministries associated with activities and financing from the World Bank and other donors and private companies, although the ministry subunits are often working under capacity to their needs.
- The development of the forest observatory has brought more transparency into the forest sector, in particular, on illegal logging. New zoning methods intended to design local forest management schemes in line with land use—that is, watershed management and tree plantations—are enhancing control of the sector.
- The program has provided better awareness of environmental protection and biodiversity conservation for government authorities, local communities, and civil society from a level that was either low or insignificant for targeted areas. In addition, environmental education was integrated into the national curricula during the program, and these issues are discussed more often in the media.

Source: World Bank 2007b.

exchange center within the National Network of Environmental Information Systems.

The enabling activities have generated knowledge for the government and related institutions by creating an accurate database and information on biodiversity within Madagascar. Clearinghouse mechanisms have shared and disseminated the information and data, which are freely available to government, NGOs, and the private sector. The database has been used for creating new protected areas in order to confirm ecosystem priorities to achieve the national challenge of protecting 6 million hectares in 2010. They are used as a reference for ecological monitoring of environmental programs and for environmental impact assessments for sectoral investment.

Completed Regional Project

Madagascar has been involved in one regional biodiversity project: the Global Coral Reef Monitoring Network project in member states of the Indian Ocean Commission. Implementation began in 1999 and ended in 2005.

The overall project objective was to contribute to the conservation and sustainable management of coral reefs in the Western Indian Ocean by providing decision-makers in the region with reliable data on reef dynamics and evolution across time. The project was intended to establish a reliable

and viable system of coral reef monitoring in the Western Indian Ocean. The results of the project were positive. Of 18 nodes around the world for monitoring coral reefs, only 5 are fully operational and produce data that are acknowledged at an international level to be satisfactory; the Global Coral Reef Monitoring Network is one of these. This well-established network follows a less complicated and much less formal institutional model than the one initially negotiated with various countries. The key factor for its success has been the enthusiasm of its members.

The project also satisfied monitoring activities, although some challenges remain. For example, the completion report highlighted the continuing need to develop and raise environmental awareness of coral reefs in Madagascar. Furthermore, coastal and marine areas still require substantial investment in terms of integrated coastal zone management and implementation to safeguard resources and sustain benefits for the population.

Potential Results of Projects under Implementation

Madagascar currently has two biodiversity projects under implementation: Environment Program III and Anjozorobe.

Environment Program III is the final phase of donor support for the implementation of the NEAP. Similar to Environment Program II, it is a joint GEF, World Bank, and UNDP project and involves several bilateral donors, such as USAID and the Credit Institution for Rehabilitation and Development–German Cooperation Enterprise for Sustainable Development. GEF funding for the project is $13.5 million of a total budget of $148 million. In contrast, Anjozorobe, implemented by UNDP and executed by Fanamby, is focused solely on the Anjozorobe forest corridor. GEF funding for the project is $0.975 million of a total budget of $1.5 million. The preliminary and potential results of these projects are discussed below.

Environment Program III began implementation in 2005, about 14 months after closure of Environment Program II. The delay in the program was related in part to the need to conduct evaluations, to which the GEF was willing to commit further funding. CELCO (the project implementation unit) directs the project in collaboration with the World Bank and UNDP in Madagascar. The principal development objectives of Environment Program III include the following:

- The biodiversity and renewable natural resources of representative ecoregions is conserved and managed on a sustainable footing with active multistakeholder participation.
- The systemic framework for sustainable environmental management is further strengthened by incorporating these management objectives into public policy making and investments.

These objectives clearly indicate that Environment Program III strongly emphasizes sustainability and establishing the right conditions for sustainable management of Madagascar's environmental resources.

The protection of unique biodiversity has continued to be the principal focus of Environment Program III; GEF support to the program is devoted to addressing protected area management and support zones, which is jointly implemented by the World Bank and UNDP. The World Bank–GEF subcomponent addresses protected area system management; the UNDP-GEF subcomponent addresses sustainable natural resource management in areas adjacent to existing or planned protected areas. The World Bank, UNDP, and other donors are also focusing on environmental mainstreaming and forestry management.

This focus on protected areas has been reinforced by the SAPM objective to raise protected area coverage from 1.7 million to 6 million hectares, including 1 million hectares of marine protected areas by 2012 (in line with the Durban Vision). The effort to develop 20 marine protected areas is a significant step, as this issue had been relatively neglected in Environment Program I and II.

After two years of Environment Program III implementation, the number of hectares for protected areas had grown to more than 3.7 million with some improvement in protected area management effectiveness in some, but not all, parks and reserves. Monitoring of forest coverage using satellite imagery shows that deforestation had declined from 0.82 percent (1990–2000) to 0.55 percent (2000–05), with most deforestation pressure focused on the southern part of the country. Despite the increase in protected area coverage and management effectiveness, significant risk remains in parts of the dry forests in the south and humid forests below an altitude of 800 meters from poor agricultural practices known as slash-and-burn culture or *tavy*, charcoal production, illicit wood extraction, and bushfires. In mid-2007, Environment Program III had contributed to laying more than 750 kilometers of firebreaks, which should limit potential fires in the future.

Environment Program III action to strengthen ANGAP and Directorate of Water and Forests capacity has led to improved protection and management. However, ANGAP effectiveness is limited, as it is not permitted by law to make arrests; this authority lies only with the Directorate of Water and Forests and the gendarmerie. This has made dealing with issues such as poaching and trafficking in endangered species difficult to tackle at the field level in ANGAP-managed parks. The World Bank is currently working with the government of Madagascar to strengthen the capacity of the Directorate of Water and Forests and the forest guard system.

Although some of the preliminary results of Environment Program III are encouraging, the protected area management component is under pressure to reach the goal of delivering sustainability. The most recent Bank supervision report (drawing in part on the midterm review) has proposed restructuring and extending the project (probably by two years). The project objectives have been recognized as overly ambitious and government capacities as too weak. In the view of interviewees and World Bank reports, capacity concerns have been exacerbated by pressures to expand the protected system to meet government goals under the Durban Vision. The project has also triggered the World Bank's safeguard, because as additional protected areas have been added to the SAPM, the risks of involuntary and economic displacement of populations have increased. The World Bank has now added a subgrants component to provide alternative livelihoods and mitigate economic displacement; furthermore, the project's protected area sites have been linked to the ongoing rural development project where possible. There are many parks and proposed parks in which subgrants, if well targeted and designed, could assist communities in developing alternative livelihoods or improving the sustainability of existing livelihoods for the benefit of conservation (see box 5.2).

UNDP- and GEF-supported Environment Program III sites are concentrated around the new or temporary protected areas and have an important role to play as they provide sustainable natural resource models for biodiversity conservation by alleviating anthropogenic pressures on protected areas. These models are based on creating sustainable livelihoods with and for local communities to manage resources better. These models

Box 5.2

Socioeconomic Constraints and Benefits of Protected Areas for Local People: The Case of Baie de Baly National Park

The Baie de Baly National Park was declared in 1997, following research undertaken by consultants, and managed from 2001 by ANGAP. WWF had been involved in the area from 1975, followed by the Durrell Wildlife and Conservation Trust. During an evaluation visit of the site and interviews with communities around the protected area, various perceptions of the socioeconomic issues and importance associated with the park were voiced.

A mixed set of views existed regarding natural resource use in the park, which was limited to a few areas by the park authorities know as controlled utilization zones. Some communities stated that they had both woodlots and grazing rights, contrary to ANGAP's position. An agreement appeared to exist with local agents, who rarely visited the site, that communities could manage some of the resources, as some areas were defined as park when they were actually degraded areas and more useful for local purposes. Meanwhile, since 1997, other communities were bound by park limits, which they had never understood, restricting their access to valuable woodlots, whereas they were content to concede the use of a sacred lake.

Communities near large breeding sites for the plough-shared tortoise spoke of the importance of potential tourism to improve their living, attributable in part to closer interventions between the Durrell Wildlife and Conservation Trust; other communities were reported to have been or to be currently involved in illicit trafficking in these rare tortoises. One community leader whose community and family members had been recently active in illicit trade explained that the value of the tortoises became apparent with the arrival of the international NGOs. These communities either stole from their local areas or other communities and then traded the tortoise with outsiders or family members living in the nearest town, Mahajanga. He explained that the area is much poorer today than during the First Republic, which has encouraged the traffic, as livelihoods options are restricted.

Most of the people earn their living from fishing in the region. They stressed the importance of the park in managing the legal peripheral zones and applying limits or controls on artisanal or industrial coastal fishing—in particular, shrimping, which was destroying marine habitats and removing large quantities of fish declared as by-catch by the companies. Fishermen said that the improved management and rights over fisheries within the structure of a protected area would benefit local communities within the area, whereas the policy would encourage respect and responsibility toward the resources (that is, reduce unregulated bushfires and, foremost, reduce the traffic in tortoises).

are being developed for coastal marine ecosystems (as part of the SAPM) in a limited number of communes north and south of Tulear (zone 1) and in the Ambanja/Nosy Be area in the northwest (zone 2).[1] The evaluation team visited some of the zone 2 sites and observed the importance of creating local decision-making systems within communities. Support will be necessary from the decentralized ministries (environment, forests, and fisheries). CBOs and multistakeholder platforms have taken important steps for community involvement in creating environmental awareness, yet much work must be done to ensure equal participation among stakeholders. The evaluation team observed some positive results with both mangrove and crab production in the Nosy Be, Ambanja, and Sahamalaza sites (see box 5.3).

The latest available implementation report for the sustainable natural resource management component indicates that the development of sustainable natural resource management in the target areas has fallen behind schedule, because of a combination of challenges, such as lack of knowledge of biodiversity and resource use by communities in project sites. This means that, so far, pressures on the protected areas have not been alleviated. Furthermore, coordination to integrate sustainable natural resource management into the management planning of the protected areas has been

Box 5.3

Sustainable Natural Resource Management in Protected Area Support Zones in Nosy Be, Ambanja, and Sahamalaza

Sustainable natural resource management in the Nosy Be, Ambanja, and Sahamalaza areas was initiated in 1998 during Environment Program II by the ONE. In 2005, the project continued under the auspices of Environment Program III and protected area support zones managed by SAGE and supported by the GEF and UNDP. The program has continued to concentrate on environmental awareness and management of either fishing or mangrove forests with alternative income-generation opportunities.

The program appears to have succeeded in building environmental awareness and better managing and replanting of overexploited mangrove areas through local laws. This process had been beneficial for members of the CBO and the communes through the success of mangrove management with some income generation. However, the income generation from mangrove management is limited to only some members of the CBO. Alternative incomes for CBO members have been observed through crab production associated with mangrove protection, although it is not certain if nonmembers can benefit.

Members of the CBO also spoke of insufficient or worthless donated materials. For example, a limited number of sewing machines without a cost-recovery process were given to Nosy Sakatia CBO women's groups; a global positioning system and plastic canoes without motors for patrolling have not been used. Meanwhile, agricultural projects started by the project have been given some initial support with seeds, fertilizers, and pesticides. There is no evidence through market surveys that the products are the correct means for the producer to exploit the market, and important financial management skills to develop a successful and viable business are lacking. CBO members are unsure of the role of the project now, as they do not see significant socioeconomic benefits, while trying to conserve natural resources in areas surrounding protected areas. The challenge for UNDP's Environment Program III component is to create viable incentives and alternatives to addressing the needs of the population and conservation, but these do not always succeed, because of inappropriate microproject designs and institutional capacity constraints.

In addition, sustainable natural resource management planning of both marine and terrestrial ecosystems appears to be lacking, because of an incomplete understanding of baseline issues and management plans in key resource zones, such as the Sahamalaza marine park, and marine and terrestrial areas surrounding Nosy Be.

incomplete. The complexities of developing viable sustainable natural resource management examples in zones 1 and 2 and then ensuring that the knowledge and experiences can be captured and replicated to other areas will also place considerable emphasis on monitoring (at the outcome level) and evaluation, in terms of knowing success from failure.

One challenge for Environment Program III, as for the previous phases, is that it is driven by biodiversity interests; many interviewees perceived that human pressures on those natural resources have not been systematically solved and addressed.[2] The rationale of Environment Program III is that humans are a threat, rather than a partner.[3] In the case of the development of the Baie de Baly National Park, interviews with NGO, community, and ANGAP staff indicated that scientists had decided where they wanted to place the boundary in a "participatory process," in which local people were involved, but did not understand the ultimate connotations of the protected area and the concept of a boundary and resource restriction. Although the global environmental benefits of the Baie de Baly park are unquestioned, the manner of its creation and current management exhibited shortcomings.

In summary, the evaluation team observed that the recurring issues of overambitious project design and limited government capacities have not been solved and still apply to Environment Program III. Furthermore, several donors and the government commented on persistent coordination challenges that have impeded the program's timely implementation. These issues are familiar, as both Environment Program I and II encountered similar problems and thus still provide fertile opportunities for inspiration to donors and the government in solving the current challenges.

The only MSP in the Madagascar GEF portfolio and also the sole project executed by an NGO is Participatory Community-Based Conservation in the Anjozorobe Forest Corridor. The project, which began implementation in 2004, is scheduled for completion in 2008. It is intended to conserve the important Anjozorobe forest corridor, which has been threatened by deforestation and agricultural pressures (see box 5.4). In seeking to mitigate the pressures on the forest, the project's rationale is the integration of biodiversity conservation and production activities through development of a multi-use protected area. The midterm review noted that this had been established under a temporary edict covering an area of 52,200 hectares, of which 24 percent is to be strictly protected, 70 percent reserved for sustainable use management, and the rest transferred to community tenure. A key achievement of the project has been to stabilize the forest edge, which had been severely threatened by clearance. This was achieved by securing the commitment of local government and community authorities.

The evaluation observed and verified some of the results documented in the midterm review. One of the emerging results, which could be replicated in other areas, is the decentralized, three-tier management approach or methodology used by Fanamby, which includes the *fokontany*, that is, intercommunal, and regional participation used to promote local governance of natural resources. The methodology involves local communities defining their resource management plans and development priorities, which link to intercommunal and regional planning. The result has been ownership of forest conservation priorities by the communities. One indicator of the success of this approach has been the reduction of forest fires.

Climate Change

The NAPA approved by the government of Madagascar highlights that almost all regions of the country are vulnerable in terms of climate change, such as general warming, increased sea level, rainfall disturbance, and so on. Linked with its location, Madagascar is faced with significant climate change risks, particularly if changes increase the strength and frequency of tropical cyclones. Major impacts are expected on agriculture and animal husbandry in the countryside and on forestry, water resources, public health, coral reefs, mangroves, and infrastructure in coastal areas. Projected sea-level rise could exacerbate coastal erosion, as is the case with Morondava, Mahajanga, and Manakara; induce changes in mangrove areas with the disruption of the food chain; have negative impacts on the reproductive areas of many fish species; and cause floods. Projected changes in precipitation and temperature could disturb agricultural production and coral reef health. GEF support was quite instrumental to the sector: through the UNFCCC project, the GEF assisted in carrying out inventories on greenhouse gas emissions and elaborating the initial national communication to the UNFCCC.

Furthermore, the GEF supported the NAPA, which established a number of recommendations on how to mainstream alternatives for slowing climate change and how to use adaptation mechanisms at

Box 5.4

Results and Impacts of the Anjozorobe Forest Corridor MSP

The primary achievement of the Anjozorobe Forest Corridor project is that it serves as a living example of the participatory approach. Although problems persist, this simple, small-scale program, which was implemented in the field by the Malagasy NGO Fanamby, has made local residents the key component by placing confidence in them and is establishing solid foundations for the sustainable development of the communities and the conservation of the area's natural resources.

According priority to the principle of subsidiarity, this is the first regional forest reserve in Madagascar. It promotes a three-tier management structure by focusing on the following at the grassroots level:

- The *fokontany* committees outline their local management, development, and protection decisions.
- The natural space management committees work at the level of intercommunal or inter-*fokontany* resource units.
- The corridor's management committee manages and coordinates conservation and development actions within and outside the corridor.

One specific objective is pursued: the equitable distribution of costs and benefits associated with sustainable natural resource management.

The results of this program were deemed "satisfactory" by the evaluators who conducted the midterm review. In fact, although most of the objectives have not been achieved, they are at least in the process of being achieved, and the ongoing quest to ensure the participation and sustainability of the structures in place offers further hope for success. One example is the major and fundamental task of zoning the protected area, which is being carried out with the local communities and authorities, through mutual consultation and agreement among the residents and the use of modern methods, while respecting current land and resource use.

These favorable results are attributable to at least three factors:

- The confidence, respect, and commitment that Fanamby clearly demonstrates in having the *fokontany* and communes assume their responsibilities pertaining to the future of their natural resources
- The exercise of self-determination
- GEF confidence in the ability of national NGOs and local structures to implement sustainable natural resource management

Although it is too early to assess impact, certain visible signs regarding future impact are nevertheless evident. Site visits have led to widespread acceptance of the project and a strong sense of ownership among the population and elected officials for actions designed to protect the forest. The local organizations in place (forest and environment committee, communal commissions, and the Public Organization for Intercommunal Cooperation) have assumed responsibility for certain sensitive management initiatives, such as the introduction of local taxes or the prosecution and imprisonment of people who use slash-and-burn techniques in restricted areas. These initial examples of ownership and local responsibility suggest that the communities along the Anjozorobe Corridor are in the process of learning about their future duties for managing the natural area.

the local level to enable rural populations to cope with these changes. Based on experiences and previous practices in Madagascar, the Preparation of a National Action Program to Adapt to Climate Changes project has suggested detailed measures to strengthen stakeholder capacity in focal areas; reform policy in governance, education, family planning and health, rural development, infrastructure, environment, economy, and national solidarity; and integrate adaptation in sectoral policies and project activities. To enable such change, the project recommends capacity enhancement and applied M&E methods to document the global environmental and local benefits of such action so that local populations, through systems such as the payment for environmental

services, could benefit twice from their enhanced land and resource use.

International Waters

Madagascar has been (and still is) involved in the development and implementation of four projects addressing international waters. Only one—the Western Indian Ocean Oil Spill Contingency Planning project—has been completed. The others, which focus on the marine highway and preventing marine and coastal contamination, the ASCLME, and mitigation of land-based marine pollutants in the West Indian Ocean are all recently under implementation. Of the projects under implementation, only the Addressing Land-Based Activities in the Western Indian Ocean (WIO-LaB) project has reached the midterm review stage at which some emerging results and challenges can be observed. The following section highlights these projects, their results, and potential for results.

The oil spill project was intended to limit the contamination of international waters and conserve globally significant marine and coastal biodiversity by addressing the threat of oil spills in the West Indian Ocean, involving the private sector in using technological advances to resolve transboundary concerns associated with such a threat, and developing a financing mechanism to sustain the national and regional capacity to deal with oil spills that the project will create. In Madagascar, the project was associated with integrated coastal zone management and the protection of sensitive ecological sites and protected areas along the western and eastern coasts. The completed project has, until now, provided equipment and training to personnel at all the principal small and large ports surrounding Madagascar. The project has succeeded in putting into place systems that will prevent the spread of small-scale oil spills in or near ports where equipment is stored. Fuel taxes provide funds to sustain the system and associated infrastructure.

There is a shortage of storage sites for waste and difficulty in accessing a 5,000-kilometer coastline with a limited amount of equipment located at only key port sites. Accidents in remote areas, such as Baie de Baly, Masoala, and Sahamalaza, are located far from sites with equipment and remain at risk. Therefore, there is always a serious environmental danger from oil spills for isolated protected areas and sensitive habitats. Because major oil spills have not occurred more than once every 10 years in the region, it is difficult to evaluate if this project has been a success in terms of actual ability to respond to an emergency in an effective and efficient manner. But the scale of the project benefits clearly must be substantially reinforced to cope with a major oil spill disaster, although combined international efforts are incorporated into the planning.

The oil spill project has now ended and been integrated into the new Western Indian Ocean Marine Highway and Coastal and Marine Protection Project. This project encourages the monitoring of shipping through marine highways in the East Africa region and reinforces international assistance, if a disaster should occur. Once the highway project is completed, the combined results with the oil spill project would at least have improved the chances of averting major disasters and providing support following disasters to safeguard important coastal biodiversity as well as fisheries and human health.

The development goal of the WIO-LaB project is to contribute to the environmentally sustainable management and development of the West Indian Ocean region by reducing land-based activities that harm rivers, estuaries, and coastal waters, as well as their biological resources.

The results of the WIO-LaB project are based on the exchange of information and meetings in the region in order to replicate best practices widely. ANGAP is preparing an ecotourism development project in the Toliara (southeast) region of Madagascar; this has not been initiated as yet, although the project has reached its midterm review. Overall, it appears that the national results of the WIO-LaB project are negligible at present. Because of the enormous task of reducing water pollution and sedimentation from land-based activities, particularly on the southwest and western coastlines, this project is more likely to remain an initiative that helps countries define their policies and provides a forum for the exchange of ideas, which may form the basis for replication. Its immediate impacts will not be evident until major issues, such as lack of capacity among national environmental management institutions and regional and local governments, are addressed, as this would be one of the foundations for replication. The potential exists for WIO-LaB to help address small-scale pollution issues associated with coastal towns and industry, whose activities and impacts are relatively localized.

The ACSLME project is intended to provide scientific data and information needed for regional management of the Agulhas-Somali current large marine ecosystem. The project will aim for an ecosystem-based approach to management, including strengthened regional cooperation frameworks, and the urgent maintenance or restoration of fish stocks. The project is intended to integrate with the WIO-LaB and with World Bank industrial fishing projects.

Until now, the ACSLME project has been a forum and means for exchanging ideas among member states. The project has the potential to improve baseline information and monitoring of marine and coastal resources. Key areas in which it may have potential results include the monitoring of fisheries, in particular long-liners and seiners—a lack of surveillance and monitoring may be leading to serious abuse in fishing practices—the demise of fishery resources, and severe financial loss to the country. But the potential results of this project could be improved if the focal point was integrated into the Ministry of Agriculture, Fisheries, and Rural Development's Unit for the Surveillance of Fisheries in liaison with fishery research bodies, such as the National Center of Oceanographic Research.

Land Degradation

The Madagascar NEAP paid much attention to land degradation, protection, and restoration, especially insofar as agriculture and soil protection were concerned. In 1996, Madagascar ratified the UNCCD and, as a party to the convention, fulfilled its commitment for elaborating the National Report and National Action Plan. Although desertification is defined by the UNCCD only in the context of arid, semiarid, and dry subhumid regions, the Madagascar National Action Plan considers desertification through land and land use degradation and its impact on all existing ecosystems in the country. The plan's elaboration, finalized in 2003, followed the PRSP elaboration process. A reference framework does a good job in defining the priority zones, several natural and human political and economic causes of land degradation, the desertification process, and its link with poverty issues for all stakeholders involved in sectoral projects linked with natural resource degradation. The general result is the consideration of land degradation issues as validation criteria in all communal and regional development plans and in several investment environmental impact assessments.

Through the ongoing regional sustainable land management project, development of replicable

SLM models for sustainable agriculture and range management and for stabilization of live dunes is taking place in the form of pilots in five contiguous communes, which represent the major agro-ecological subregions in southern Madagascar. These communes represent 4,100 square kilometers with about 62,500 people spread among 100 villages. The effort has allocated $1.287 million for development of the models. A system of knowledge management for SLM is under development and being used to integrate SLM into regional/provincial programs, strategies, policies, and legislation for $0.713 million. Capacity-building programs use $1,515 million to enable implementation of a program for capacity development and improved communal governance for SLM.

The ongoing Madagascar watershed management project within the Regional Strategic Investment Program for Sustainable Land Management in Sub-Saharan Africa is intended to promote SLM in four priority watersheds in Madagascar. The project will do so by improving agricultural productivity and natural resource conservation practices addressing local drivers of land degradation and accounting for the superimposed effects of climate change, and training 5,000 households in agro-ecological practices. In irrigation development, 21,780 hectares will be rehabilitated and the capacity of 30 water-user associations will be strengthened. The watershed development concerns 60 SLM groups and would provide 32 contracts on delegated land use rights.

Although the UNCCD National Action Plan, which is the immediate outcome of the UNCCD regional project, provided the larger framework, the SLM project should result in identification and dissemination of best practices on sustainable land management and capacity enhancement at the community level as an effective tool in combating land degradation and desertification;[4] therefore, it will enable Madagascar to achieve national and international objectives in that field.

Persistent Organic Pollutants

Madagascar ratified the Stockholm Convention on Persistent Organic Pollutants in 2001 and fulfilled its commitment to produce a national profile on POPs in 2004.

In preparing the National Implementation Plan for the Stockholm convention, the GEF-supported POPs project carried out some initial inventories that suggested that industry and agriculture sectors are the main sources of POPs, with household, municipal, and hospital waste playing a minor role. Dioxins and furans are unintentionally produced by incinerators, chemical industries, wildfires, and putrefaction processes. Chemical products such as PCBs are found at electricity company, industrial unit, and municipal and industrial waste deposit sites. Stockpiles of obsolete pesticides are exported for elimination in a country specialized in doing so. Although pesticides were widely used in the past, just a few study results are available on possible contamination of the environment and food by POPs. The impacts of the increased emissions of dioxin and furan noted are not being systematically assessed. From juridical and legal points of view, texts on PCBs, hexachlorobenzenes, dioxin, and furan are nonexistent.

Key achievements supported by the GEF-funded POPs project are the actual situation of Madagascar in terms of the import, export, production, and use of POPs; several issues in POPs management; the list of existing legal tools and institutions involved in POPs management; national capacity of POPs management; and the existing structure and coordination mechanism. The GEF-funded enabling activity for the Persistent Organic Pollutants National Profile and National Implementation Plan endorsed by all stakeholders allowed the

government to react and address POPs issues and define the manner in which Madagascar intends to fulfill its obligations to eliminate or reduce POPs in the country. The stakeholders' responsibility charter, defined in the Madagascar Persistent Organic Pollutants National Profile, enables easier collaboration among the government, private sector, and individuals on POPs matters.

In Madagascar, after severe malaria epidemics in 1987 in highland areas, DDT was reintroduced for vector control. There is limited regulation on the use, transport, and storage of pesticides; limited epidemiological surveillance in endemic areas; and inadequate diagnostic and referral services. The DDT used in the malaria control program organized by the Ministry of Health and Familial Planning has decreased from more than 200 tons a year in 1993 to about 40 tons a year in 2003. The GEF regional project on Demonstrating Cost-Effectiveness and Sustainability of Environmentally Sound and Locally Appropriate Alternatives to DDT for Malaria Vector Control is operating in 16 districts within five southeastern African countries. A test under way in three Madagascar districts (Anjozorobe, Ambalavo, and Vatomandry) will strengthen national and local capacities for planning, monitoring, and evaluating emergency management and raise people's awareness of malaria control that uses less DDT; implement alternative methods of malaria vector control tailored to local circumstances; and ensure coordination, management, and use of DDT and other public health pesticides.

5.2 Catalytic and Replication Effects

Based on the review of existing evaluative material and interviews, the evaluation team found that the past and present conditions for catalysis of GEF FSP interventions is limited by several factors:

- Weak financial sustainability in the environment sector in terms of lack of ability for interventions to be self-sustaining
- Lack of available government funding for the environment sector
- Low levels of capacity and leadership to support NGOs and individuals at national, regional, and local levels[5]
- Lack of incentives to individuals and communities

The Anjozorobe project has potential for replication in other protected areas, particularly those that would involve substantial community involvement, such as under IUCN categories V and VI.

Enabling activities financed by the GEF also have catalytic potential in terms of providing the basis for further project development. The NAPA has developed 15 prioritized and urgent project concepts for consideration in 12 of the country's 22 regions. The NAPA has also helped raise awareness within the government of Madagascar on climate change adaptation across sectors; however, this has yet to lead to any investment in the field.

5.3 Sustainability

Financial Sustainability

Management costs of Madagascar's protected area system are an estimated $6.8 to $10 million a year. At present, a combination of Environment Program III, international NGO (from, among others, the Wildlife Conservation Society, WWF, and Conservation International), and government baseline funds covers the costs of the protected area network. The GEF has primarily contributed to two FSPs in 10 years, with $33.5 million of grant funding of total donor funding of more than $300 million (about $30 million a year). According

to the World Bank's public expenditure review, donor funding has provided more than 55 percent of support to the environment sector in the past 10 years.

Government baseline domestic funding for the MINEFT has improved marginally since 2002. The budget falls far short of what is required to manage the protected area system under ANGAP. Madagascar is likely to continue to require significant donor funding from multilateral, bilateral, and international NGOs to improve and sustain environmental management and support the enlargement of the protected area system under the auspices of the SAPM. Many of the donor interviewees recognized that Environment Program III would not achieve its goals of providing for a sustainable protected area system, mainly because the majority of protected areas are currently not able to self-finance operations through revenues from tourism and park entrance fees.

The future funding of the protected area system will depend on the development of the trust fund, which has so far received donor and international NGO commitments of more than $20 million. Although the target is $50 million for basic functioning of the existing protected areas (based on 3 to 5 percent annual return on the endowment), most interviewees agreed that the trust fund would require $80 to $100 million to support the protected areas sustainably, as protected areas expand to reach the Durban Vision target. The government of Madagascar will submit a proposal to support the trust fund with $10 million from the current RAF allocation. The trust fund has already shown promise in intervening to settle wages for ANGAP staff in 2007. However, it is important that the fund establish its legal status within Malagasy law before it intervenes in such ways in the future.

Other mechanisms such as public-private partnerships (for example, concessioning of protected areas for tourism), tapping the corporate social and environmental responsibility potential of the extractive industry sector, and climate change and carbon market mechanisms have yet to be tried; however, the International Finance Corporation is currently working with ANGAP to develop ecotourism concessions in several protected areas.

Institutional Sustainability

Addressing the lack of institutional capacity to enable effective and sustainable management of biodiversity and environmental resources has been a key issue shared by the implementation rationales of Environment Program I to III. However, despite considerable investment by donors, the challenge of building and sustaining institutional capacity remains. Evaluations, recent implementation reports, and interview data highlight the following issues:

- The durability of an institution is often based on its broad capacity from local to regional and national levels and on having sustainable financing—for example, from revenue generation or through government budget lines. Many of the institutions currently working in Madagascar's environment sector do not have these characteristics and are thus not sustainable without donor financing.
- At the individual and institutional levels, capacities remain uneven and diffuse. The MINEFT is currently weak, while other institutions addressing the environment receive the majority of donor funding and technical assistance. Furthermore, on a spatial scale, decentralization is associated with institutional capacity barriers; ministry representatives in the field lack skills to play a meaningful role in environmental management. The institutional landscape

is overly complex involving many different stakeholders, which has resulted in the scattering of institutional investments, rather than concentrating resources within one or two key line ministries (for example, environment and forestry and fisheries).

- The complexity of institutional roles and responsibilities in Environment Program II and III has decreased cross-institutional communication and knowledge sharing. In addition, the MINEFT has had limited or no control of these institutions in terms of coordination of activities and pooling of resources and knowledge. These institutions and their partners, either donors or NGOs, appear to work relatively independently from one another.

Socioeconomic Sustainability

Environment Program II and III have consistently emphasized the integration of biodiversity conservation with local community livelihoods. Environment Program II achieved some success in developing community forestry and microprojects to improve livelihoods and relieve pressure on protected areas. The results overall were diffused and of limited sustainability (World Bank 2007b). Under Environment Program III, the UNDP-GEF component addressing sustainable natural resource management represents another attempt to resolve the tension between protection of biodiversity and local community livelihoods; the results and sustainability of this approach have yet to be realized.

The independent evaluations of Environment Program I and II highlighted that the program has faced difficulties in integrating and addressing the anthropogenic pressures and poverty that are threatening biodiversity (World Bank 2000, 2007b). This is still the challenge for Environment Program III, although the World Bank is making efforts in certain areas to link communities around protected areas to the rural development program. The evaluation endorses the previous evaluative evidence. Issues of rural development, food security, and poverty cannot be ignored in biodiversity conservation in Madagascar. Ultimately, local populations are paying the price for global environmental benefits through foregone access to resources.

5.4 Summary

GEF support has enhanced awareness of biodiversity conservation in Madagascar and assisted in reducing the deforestation rate within protected areas and expanding the protected area system to safeguard globally important habitats and species. Steps have also been taken to improve participation of communities in conservation management; however, expected results have yet to be fully realized. Some persistent challenges remain, such as financial sustainability of the protected area system, institutional capacities to manage biodiversity and broader environmental issues, and cooperation between ministries and donors to achieve a more integrated approach to biodiversity conservation by linking to rural development and poverty alleviation programs.

GEF support has enabled Madagascar to fulfill all its reporting requirements to all of the conventions, except for biosafety. Some processes, such as the National Capacity Self-Assessment, have yet to start, but have the potential to assist the government in identifying capacity gaps and to enable consolidation and simplification of a complex institutional landscape. GEF support has been particularly useful in raising awareness and consideration of climate change adaptation and also assisting in knowledge management through the Clearing House Mechanism.

In international waters, Madagascar's participation in the oil spill project has put in place a system and infrastructure that will assist the country in dealing with pollution threats. Many areas of the coastline remain vulnerable, as they are far away from the current port infrastructure.

The plan to sustain results and address ongoing challenges in Madagascar largely depends on the trust fund and continued donor and international NGO support. Government domestic measures, such as cost-recovery mechanisms, taxes, and revenue collection (for example, tourism), must clearly play a larger role in financing the environmental sector as the country develops.

Notes

1. Site selection for the development of sustainable natural resource management models was based on a set of agreed criteria and an iterative, participatory process for applying these criteria with key Malagasy stakeholders. The criteria for site selection included that a model was contiguous to or clearly supported World Bank–funded protected area management, already had baseline capacity (community management structures created and empowered through the transfer of management rights, had a high probability of success, had cofinancing available, and had good demonstration value (representative of key ecosystems, visible, and accessible). An additional determinant was the need to select sites within a limited number of zones (ultimately two) for reasons of efficiency and to avoid dispersion of effort and impact.
2. The previous evaluations of Environment Program I and II had similar findings.
3. One interviewee referred to communities as "ants" eating away at the protected area system. Although the pressures are there, the perception seems to go against the need to help people understand the compromise with conservation.
4. The UNCCD project was part of the regional project Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD.
5. A recent internal GEF Evaluation Office study confirmed that strong institutional leadership and "champions" often need to be present to produce catalytic effects.

6. Relevance of GEF Support to Madagascar

This chapter reviews the relevance of GEF support in the context of both the country's and GEF's goals and priorities; it also summarizes findings in relation to the following key questions:

- Is GEF support in line with Madagascar's MAP, PRSP, and environmental priorities?
- Does GEF support have country ownership, and is it country driven?
- How relevant are the RAF indexes (Global Environmental Benefits and Performance Indexes) to Madagascar's priorities?
- Does GEF support help development needs and reduce gaps?
- Are GEF-supported projects in line with national environmental action plans?
- Is GEF support targeting actions that contribute to global environmental benefits?

6.1 Integration of GEF into National Sustainable Development: Poverty Reduction

Madagascar's global environmental benefits and GEF portfolio primarily relate to biodiversity conservation. Thus, when assessing the integration and relevance of GEF-funded projects, the emphasis is primarily on biodiversity and particularly protected areas. Furthermore, the government instilled a strong and consistent environmental message as part of the NEAP prepared in the early 1990s, the PRSP (2003), and the MAP (see table 6.1).

Table 6.1

Madagascar PRSP and MAP Environmental Objectives

PRSP (2003) environmental objectives	MAP (2007) environmental objectives
Overall objective: Safeguarding and enhancing the value of the environment and the unique biodiversity of Madagascar • Maintain the volume and quality of natural resources with a view to sustainable economic growth and a better quality of life • Satisfy the population's economic, ecological, and social needs in terms of forestry resources, soil, and water • Integrate the environmental dimension in sectoral development policies and actions (transport, energy, tourism, mining, fishery and health) and in regional, municipal, and local planning	**Vision:** Madagascar will be a world leader in the development and implementation of environmental best practice. After many decades of exploitation and neglect, we have begun to turn the tide. We will become a green island again. Our commitment is to care for, protect, and cherish our extraordinary environment **Overall objective:** Ensure environmental sustainability • Increase the protected areas for the conservation of land, lake, marine, and coastal biodiversity • Reduce natural resource degradation processes • Develop the environmental reflex at all levels • Strengthen the effectiveness of the forest management system

Madagascar depends greatly on environmental resources; its agriculture, forestry, and fisheries account for more than 30 percent of gross domestic product (World Bank 2005). Rural communities (which make up about 80 percent of the population) particularly depend on environmental resources. Therefore, such resources have a profound significance for the poor and provide opportunities for poverty reduction in Madagasca. As much as 50 percent of income in the Malagasy economy comes from environmental resources, and 9 of 10 jobs depend directly or indirectly on the environment resource base (Madagascar 2003).

Given the concentration of poverty in rural areas, coupled with the lack of alternative income-generating opportunities, the role of environmental resources as the principal source of income for rural communities and the poor is axiomatic, and poverty issues are inseparable from the environment. In addition, environmental resources are a source of food, shelter, domestic energy, and traditional medicines, which are essential to the vast majority of Madagascar's poor. This has been confirmed by several World Bank reports and assessments that have singled out the environment and associated services it provides, including tourism, as an important engine of economic growth for the present and the future (World Bank 1999, 2003b, and 2005). Therefore, at the national level, the objectives and goals of Environment Program II and III, the Anjozorobe project, and GEF support are fully in line and a valid contribution to NEAP, PRSP (2003), and MAP environmental objectives.

In attempting to promote greater decentralization of control of the resources on which the rural poor depend, GEF funding has supported work on secure local management and support for regional and spatial approach management with communities. Environment Program III and the NGO-led intervention at Anjozorobe have continued this focus. However, several evaluations of Environment Program II have stated that relevance could have been enhanced through more systematic linkage between Environment Program II and rural development and agricultural programs of the government and other donors. For example, the design and implementation of Environment Program II did not sufficiently address some of the key underlying pressures on protected areas—wood fuel use and slash-and-burn agriculture—or sufficiently raise the importance of the environment among local and regional government officials. On balance, the 14 percent of Environment Program II support directed toward regional environmental programming and local management was highly relevant, but insufficient for addressing the integration of development and environmental issues within and outside of the protected area system.

Funds from the GEF managed by UNDP during Environment Program III focus principally on biodiversity and natural resource management by local coastal communities. The relevance of this focus has been reinforced with new legislation allowing for the development of new and various categories of community-managed protected areas through the Durban Vision (see box 6.1).

Until now, protected areas associated with Environment Program III and UNDP's component have only focused on peripheral areas of new or proposed state-managed parks. Meanwhile, the GEF has been a key donor for the development of the new Anjozorobe protected area managed by Fanamby and associated with Durban Vision legislation.

Environment Program III has reaffirmed the importance of the integration of development and environmental goals, through activities intended to promote the mainstreaming of natural resource

Box 6.1

Durban Vision

At the 2003 IUCN World Parks Congress in Durban, Malagasy president Marc Ravalomanana announced a bold initiative to expand the area under protection by more than three times—from about 17,000 to more than 60,000 square kilometers. This "Durban Vision" involves broadening the definition of protected areas in the country, and legislation has been passed allowing the creation of four new categories of protected areas: natural parks (IUCN category II), natural monuments (IUCN category III), protected landscapes (IUCN category V), and natural resource reserves (IUCN category VI). The legislation also provides for entities other than ANGAP to manage the protected areas. Other government agencies, such as the forestry and fisheries departments, now manage some sites in addition to ANGAP. Private and community-run parks and reserves will also be created within the next few years. In December 2005, the first extra 10,000 square kilometers of the new protected area system of Madagascar were granted protected status.

management with local and regional governance created by the country's decentralization policy (implemented by UNDP). This is of significant relevance as environmental issues have often been found to be low on the list of local government and community priorities, but agricultural development (which depends on the environment) is rated the highest (World Bank 2003a). The continued emphasis on developing environmental management capacities and improving local and regional awareness of the links between environment and livelihoods resonates with MAP decentralization and environmental objectives.

The GEF SGP, which has just begun operations in Madagascar, will also contribute to MAP decentralization and environmental objectives, as well as to rural development, by linking livelihood incentives to instill improvements in environmental management. The SGP strategy is to respond to government priorities in

- responsible decentralized governance and financing at the community level;
- access to the fundamental aspects of livelihood, such as clean and healthy water;
- support given directly to protected areas and reduction of natural resource degradation and, indirectly, through diversified, market-oriented, sustainable and securitized "green" development;
- national solidarity by working with the poorest people and promoting gender equity.

The other focus of the GEF portfolio—Madagascar's involvement in resource management in international waters—is also in line with the PRSP (2003), as it identifies promotion of sustainable use of land, sea, and coastal resources; restocking of continental water bodies with fish; and environmental monitoring of fisheries as priorities (Madagascar 2003). The sustainable use of coastal and marine resources corresponds to two international waters projects supported by the GEF: ASCLME and WIO-LaB. These projects were principally endorsed by the signing of the Convention for the Protection, Management, and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi convention), with corresponding national legislation to both protect and manage marine and coastal resources in the East Africa region. In Madagascar, two other GEF-supported international waters projects have focused on marine transport issues and potential pollution threats. This support, which coincides with important international conventions and protocols signed by Madagascar, includes the International Convention for the Prevention of Pollution from Ships, the International Convention on Civil Liability for Oil Pollution Damage, and the International Oil Pollution Compensation Funds. With GEF support, Madagascar has developed corroborative

national legislation for international maritime conventions and protocols.

Madagascar is not a significant emitter of carbon dioxide; its emissions in 2002 were estimated at less than 0.1 tons per capita a year (or 432 million tons a year), compared with the United States at 20 tons per capita a year. However, agricultural emissions from bushfires and slash-and-burn culture in Madagascar have not been officially calculated. If these emissions were factored in, they would certainly increase the carbon per capita released from Madagascar. Until these facts are clear, climate change mitigation interventions have not been a priority for GEF funding. This is reflected in the RAF, in which Madagascar does not have an individual allocation for climate change project development, but is included in the group allocation (GEF 2007). Several interviewees and reviews of government strategies (Madagascar 2003) revealed that climate change is beginning to gain greater prominence in government environmental priorities in relation to adaptation and vulnerability as it relates to biodiversity, sustainable land management, agricultural development, and coastal development. Notably, the PRSP recognized the risks that climate change poses to Madagascar's biodiversity and productive sectors (agriculture and fisheries). GEF funding for preparation of the NAPA clearly responds to those national priorities and provides a relevant platform for the integration of climate adaptation considerations into environmental and development interventions in Madagascar, as well as future GEF funding. Government, NGO, and donor interviewees also recognized the importance of promoting Madagascar's carbon sequestration potential for the carbon market; this has yet to be sufficiently developed.

Land degradation and SLM are significant issues as they relate to areas outside the protected area network. The GEF has played a minor, but significant, role in assisting the government in producing its first national report for the UNCCD. Two land degradation projects are currently at an advanced stage of preparation: one MSP to begin later in 2008 and focused on SLM in the south of the island, and a large investment project focusing on irrigation and water management as part of the Africa-wide Strategic Investment Program for SLM. Both have strong relevance to the MAP and the priorities outlined in the UNCCD report.

The enabling activities are also contributing to priorities of the PRSP and MAP in developing institutional knowledge and capacity within the government and associated institutions, such as ANGAP, SAGE, and ONE, as well as providing the basis for further policy development and priority setting. To this end, many informants emphasized the strong relevance of the UNCBD, UNFCCC, and Clearing House Mechanism projects. One opportunity that Madagascar has yet to benefit from is a National Capacity Self-Assessment, although the project was approved in January 2008 and has the potential to assist the government further in identifying strategic gaps and opportunities to improve the targeting of future capacity development at national, regional, and local levels.

6.2 GEF Support for Environmental Action Plans

Because of the importance and duration (15 years) of the NEAP, it is not surprising to find that the majority of projects supported by the GEF are linked to or are delivering impacts to the NEAP. With the emphasis on biodiversity in Madagascar, a clear association exists between GEF-supported projects and the National Strategy for Biodiversity. Meanwhile, both climate change and organic pollution attached to, respectively, the NAPA and National Strategy for the Persistent

Organic Pollutants programs correlate well with several GEF projects. Projects are noticeably weaker regarding the MAP, as this strategy has only recently been developed. Significantly less correlation exists between GEF projects and both poverty (Rural Development Support Project) and land degradation (National Action Plan for Land Degradation), which have the most severe impact on the environment (see table 6.2).

6.3 Relevance of GEF Support for Global Environment Benefits

The commitment of GEF support to global environmental benefits is aligned with three important sectors: biodiversity, climate change, and pollution control in Madagascar. Biodiversity is the most significant sector, assisted principally through national projects, although international waters regional projects also provide important global benefits (see table 6.3).

GEF's significant support to biodiversity projects in Madagascar, as one of 17 mega-biodiverse countries, shows that GEF funding is going to the countries most endowed with biodiversity. Support of some ANGAP national parks during Environment Program II and III has protected biodiversity of international importance and reduced forest cover losses inside park boundaries (see chapter 5). However, areas outside the parks

Table 6.2

Relevance of GEF-Supported Projects to Madagascar Action Plans, Strategies, and Programs

Project	National Environmental Action Plan	National strategy/program					
		PSDR	MAP	NSB	NSPOPs	NAPA	NAPLD
Env. Prog. II	■						
CBD1				■			
CBD2				■			
CHM	■						
UNFCCC						■	
Adaptation						■	
Env. Prog. III	■			■			
Anjozorobe	■						
CHM2	■						
POPs					■		
Oil Spill							
GCRMN							
UNCCD	■						■
DDT					■		
Highway							
ASCLME							
WIO-LaB							
SLM		■					■

Note: CHM = Clearing House Mechanism; GCRMN = Global Coral Reef Monitoring Network; NAPLD = National Action Plan for Land Degradation; NSB = National Strategy for Biodiversity; NSPOPs = National Strategy for POPs.

■ Project is linked to action plan, strategy, and so on. □ Project is delivering impacts to action plan, strategy, and so on.

Table 6.3

Relevance of GEF-Supported Projects to International Environmental Conventions and Treaties

Convention/treaty	EP2	UNCB1	CBD2	CHM	UNFCCC	Adaptation NAPA	EP3	Anjorozobe	CHM2	POPs	OilSpill	GCRMN	UNCCD	DDT	WIOMH	ASCLMEs	WIO-LaB	RSIP-SLM
CITES		■	■	■					■									
Amendment article XXI CITES		■	■	■					■									
CBD		■	■	■					■									
Ramsar Convention on Wetlands	■		■				■		■									
Cartagena Protocol for Biotechnology Risks Linked to Biodiversity Convention									■									
Conservation of Migratory Species of Wild Animals																		
Nairobi Convention	■						■					■					■	
International Convention for the Protection of Plants		■	■	■					■									
Vienna Convention on Ozone					■	■						■						
Montreal Protocol					■	■						■						
UNFCCC					■	■						■						
Kyoto Protocol					■	■						■						
Bale Convention										■								
International Convention against Oil Pollution											■							
Stockholm Convention on POPs										■				■				
Rotterdam Convention										■								
UN Convention on Maritime Rights																		
International Convention on International Fund for Indemnity of Pollution from Oil Spills											■							
International Convention on Civil Responsibility for Damages Caused by Oil Spills											■							
International Conventions Relating to Protection of Marine and Coastal Zones from Oil Spills											■							
MARPOL											■							
UNCCD													■					■

Note: See table 6.2 for project abbreviations used.

■ Project is linked to action plan, strategy, and so on

□ Project is delivering impacts to action plan, strategy, and so on.

continue to be devastated and contribute significantly to the loss of an average of 2.5 percent of forest cover a year. Recent Durban Vision initiatives to extend protected areas may help curb this

loss and improve global benefits through efforts similar to the MSP support of the Anjozorobe project. Poverty will continue to be a major threat and needs to be seriously addressed in and near biodiversity-rich areas to avoid potential significant increases in conflicts among communities trying only to maintain their livelihoods and global benefits from natural habitats.

Most GEF support has been linked to terrestrial biodiversity, and assistance to coastal and marine systems has been rather limited. GEF support through UNDP to assist in developing and protecting reference sites in the Nosy Be–Sahamalaza and Toliara regions has attempted to address this issue. GEF-supported regional projects, such as WIO-LaB and ACSLME, have the opportunity to provide significant inputs to safeguarding coastal and marine habitats and resources through demonstration and replication. This depends on government capacity improvements and incentive-based structures to encourage local and individual changes in action to reduce environmental pressures.

International waters projects are linked to regional issues providing potentially important global benefits to the environment. In Madagascar, significant importance has been placed on pollution control (relating to oil spill prevention and improvements in navigation) to protect both marine and coastal habitats. These projects have also provided mutual and pertinent global benefits for marine biodiversity, as well as usufruct value for local communities from marine and coastal natural resources. Terrestrial pollution has also been addressed, although global significance is limited principally to hazardous chemicals.

Climate change is regarded as one of the most important issues to address on the global stage. As mentioned already, GEF support to climate change, both mitigation and adaptation, has until now not been significant in Madagascar. Development of carbon credits to support alternative energy developments and carbon sequestration through forest cover may extend to existing and new protected areas as well as financial support for poor communities living around these areas, such as in the new protected areas of Anjozorobe and ANGAP's marine and terrestrial parks in Nosy Be and Sahamalaza.

All GEF-funded projects were developed and approved on the basis of their relevance to the GEF mandate and focal areas. Therefore, many projects are highly relevant for the global environmental benefits associated with specific focal areas in view of their contribution to the implementation of the international environmental agenda.

6.4 GEF Funding and Ownership

Interviews revealed that government ownership of the GEF-funded interventions is presently not strong, particularly in relation to the Environment Program.

Government and donor informants cited several reasons for this: first, although the Environment Program is linked with the government's NEAP, it has been driven to a significant extent by the Implementing Agencies and bilateral donors. They said that donors are taking the primary lead in driving the environment sector because of a lack of capacity and leadership within the MINEFT.

Second, and also in relation to the RAF, the MINEFT has experienced a high turnover of staff at the minister's (GEF political focal point) and secretary general's (GEF operational focal point) levels. Many of those interviewed expressed the view that frequent change had not enabled stability or clarity in leadership on GEF issues or in the environment sector as a whole; they concomitantly saw a need for stability and commitment

for the remainder of Environment Program III and beyond. Not surprisingly, ownership of Environment Program III from the government has become a challenge, and donors have become the actual drivers of the program.

Third, creation by the Environment Program of institutions such as ANGAP, ONE, and SAGE and a coordinating unit such as CELCO has resulted in a diffusion of institutional roles outside of the MINEFT that lack clarity, responsibility, and ownership and has resulted in a complex institutional landscape.[1] Although these institutions have ownership over particular parts of Environment Program III, reporting relationships to the MINEFT remain unclear. The Implementing Agencies have supported the proliferation of institutions, which reflects certain donors' low confidence in MINEFT capacity. This has perversely tended not to solve the ownership and capacity issues, but contributed to the dilution of the MINEFT, as staff have moved to newly created institutions with more resources.

At a practical level, the MINEFT has limited capacity to strategically outline ideas for project proposals. Interviewees stated that Implementing Agencies or international NGOs mainly developed proposals for the Environment Program and other projects; the government participated in, but did not lead, the process. Ownership was then developed during implementation through the donor-government committee. Although USAID and the MINEFT have jointly chaired the Environment Program III coordination committee, USAID has tended to organize the meetings. When USAID decided to stop taking the lead and let the MINEFT decide when to hold meetings, none were held; this illustrates the challenge of country ownership of the environment sector agenda.

Problems associated with creating government ownership are linked to capacities of institutions and individuals and to incentives. Although capacity remains low, ownership is likely to be constrained. In addition, GEF strategies and processes a play a role in constraining ownership, because government informants stated that application for GEF funding was still too complex a process, and external expert assistance was still necessary.

At local and regional levels, the Anjozorobe project, which has been developed and implemented by Fanamby, was observed to have strong ownership and commitment both internally to its conservation approach, which is fully in line with GEF strategies, and externally to its community and local government stakeholders. Ownership in this project has been built through continuous involvement of stakeholders in design and implementation of the project, coupled with good communication and Fanamby's strong site presence.

6.5 RAF Relevance to Madagascar

The GEF does not have standardized indicators to measure global environmental benefits. Instead, the evaluation has used the implicit RAF criteria for biodiversity and climate change as potential environmental indicators.

The GEF Benefits Index for Biodiversity is developed from several separate, but related, data sets, such as countries' terrestrial ecoregion components and complexity, including subsets for represented species, threatened species, represented ecoregion, and threatened ecoregion; and marine biodiversity equal to the sum of credits from all marine species in the territorial waters. These were used to assess each country's ability to produce global environmental benefits.

The GEF global resources of Madagascar are discussed in chapter 3, and the benefits and results

for biodiversity are presented in chapter 5. The results of the analysis in that chapter reveal that GEF-supported projects have largely focused on the most significant biodiversity in Madagascar's ecoregions, but with stronger emphasis on forest ecoregions than on coastal and marine.[2] Environment Program III and several of the international waters regional interventions are addressing the gap to protect Madagascar's important coastal biodiversity. However, the RAF indexes and data sets overall reflect Madagascar's major biodiversity resources and potential to generate significant global environmental benefits, as evidenced by the allocation of $24.2 million.[3]

The GEF Benefits Index for Climate Change provides a relative ranking of countries in meeting the GEF's RAF climate change objectives (GEF 2005). The index is derived from the following indicators:

- Greenhouse gas emissions in 2000 from fossil fuels, cement production, and other sources (emissions from changes in land use are not considered)
- Carbon intensity adjustment factor (carbon intensity is the amount of carbon equivalent emitted per unit of economic activity or kilograms of carbon per $1 gross domestic product, and the adjustment factor is the ratio of carbon intensity in 1990 to carbon intensity in 2000; the adjustment factor is multiplied by the level of the above emissions, which rewards countries that have reduced carbon intensity levels through energy efficiency or increased use of renewable energy sources)

The index reflects the fact that Madagascar is a lower emitter of carbon dioxide, so the lack of an individual financial allocation is justified. The indexes do not currently take into account important issues such as vulnerability and adaptation to climate change (which fall outside the RAF) or potential to store and sequester carbon dioxide through forest resources. In the future, if the RAF index for climate change is adapted to reflect such potential risks and benefits, Madagascar would become more relevant.

The RAF performance indexes are based on historical portfolio performance; World Bank country environment policy and institutional assessment; and a broad government framework indicator, which takes into account aspects such as property rights, rule-based governance, and transparency. As mentioned in chapter 3, in the late 1980s and early 1990s, Madagascar led the way in environmental policy in Africa with the NEAP and Environment Program. Since then, legal and policy development has not been sufficiently revised, and the government lacks capacity to implement policy in the environment sector and within government as a whole. Hence, the RAF performance indicators are able to capture both the positive aspects and challenges to performance in Madagascar and are relevant.

The RAF was perceived by the few informants who were aware of it as a positive step toward enhanced ownership and participation in the identification, elaboration, and implementation of projects, which reflects national and GEF global priorities. However, an overall lack of awareness of the RAF exists among almost all informants, in terms of how it functions and, more important, how the government should lead RAF programming of the financial resources available from the GEF. This was caused by high turnover in political and operational focal points for several years and the consequent lack of institutional stability and leadership from the government. There appears to be no mechanism within the government to pass on knowledge of the RAF implementation process systematically and no permanent GEF national

committee or similar environmental committee that is led by the government.[4]

In mid-2006, the GEF Secretariat invited all countries with individual RAF allocations to hold consultations to establish their priorities for project funding. The previous Madagascar operational focal point held several meetings to establish Madagascar's list of project priorities. The indicative project concepts were then submitted to the GEF Secretariat by the government of Madagascar before the first negotiations with them on the future GEF country portfolio in November 2006. As of today, Madagascar has used $580,000 as a contribution to the SGP national program and one project information form has been cleared in support of implementation of the biosafety program for $680,000. This leaves $23 million unallocated so far. Madagascar is one of the slowest performing RAF countries with a large allocation, as only 5 percent of the allocation has been approved.

The negotiations were conducted by teleconference between the Madagascar operational focal point (and other stakeholders) and the GEF Secretariat. The evaluation was unable to establish the content of the negotiations, as the previous operational focal point was unavailable for comment, and the government and GEF Secretariat kept no official minutes of the negotiations. This clearly demonstrates the considerable challenge for the present operational focal point in terms of institutional memory and knowledge of justifications for previous decisions. This has the potential of slowing programming of RAF resources.

Implementing Agency and government informants criticized the process used to submit the RAF indicative project concepts, citing lack of government strategy. They noted a tendency to divide the allocation according to institutional funding needs, as opposed to focusing on threats to and opportunities for improving biodiversity conservation.

The evaluation team requested that the GEF Secretariat provide minutes of the teleconference with the government, but it was unable to produce a record of the discussions and negotiation.

In terms of RAF programming, as of November 2007, Madagascar has programmed $0.550 million of its $24.2 million in financial allocations for biodiversity. The evaluation team was informed that several proposals, such as for the biodiversity trust fund, were close to submission to the GEF for approval. At present, institutional changes and a lack of leadership appear to have impeded overall programming. On a more positive note, the government now recognizes the issue on RAF programming and donor coordination in the environment sector (see chapter 7).

6.6 Summary

The GEF portfolio in Madagascar is relevant to the country's national priorities as outlined in the NEAP, the PRSP, and more recently the MAP, and is closely linked with global environmental benefits, as indicated in the RAF indexes.

Despite the undoubted relevance of projects, the issue of ownership and the capacity to engender ownership remains a key challenge for the government and donors. Environment Program III seems to offer room for further enhancement of country ownership, as it goes into the latter stages of implementation. In contrast, Madagascar's only national MSP, the Anjozorobe project, showed that a more focused approach that is closer to key local government and community beneficiaries exhibited higher levels of stakeholder ownership and was perceived as nationally, regionally, and locally driven.

So far, programming of the RAF allocation in Madagascar has been slower than expected, given the resources available for use as incentives. The slowness, of course, does not reflect a lack of need or the seriousness of the environmental problems facing the country. It does reflect the fact that leadership and ownership of the RAF is currently a challenge in enabling timely and strategic use of available funds. This is an area in which clear avenues for action exist.

Notes

1. For example, SAGE has responsibility for a number of GEF interventions within Environment Program III, the ASCLME project, enabling activities, and focal point status for the UNCBD, but its relationship to the MINEFT is not clear. Similarly, ANGAP has responsibility for management of protected areas, but does not have sufficient official powers.
2. Seven ecoregions have been identified: lowland forest, semi-moist forest, caducifoliate dry forest, ericoid scrubland, spiny scrubland, succulent forest, and mangroves.
3. The allocation makes Madagascar the ninth largest recipient of GEF funding after Brazil, Mexico, Indonesia, China, Colombia, India, Peru, and Russia.
4. There is, of course, an Environment Program III coordination committee, but this committee is associated with a program and project and is not a permanent institutional structure with sufficient government ownership and leadership.

7. Efficiency of GEF-Supported Activities in Madagascar

This chapter reviews the efficiency of GEF-supported activities, to be measured against the following indicators:

- Time and effort needed to develop and implement a project
- Roles and responsibilities among different stakeholders in project implementation
- Functioning of the GEF focal point mechanism
- Lessons learned across GEF projects
- Synergies among GEF stakeholders and projects

A common issue facing this analysis is the absence of detailed project information on project costs, timing, and status in the project cycle. In general, the GEF does not systematically compile and conduct quality control of project data (for example, project cycle dates, implementation status, and financing).

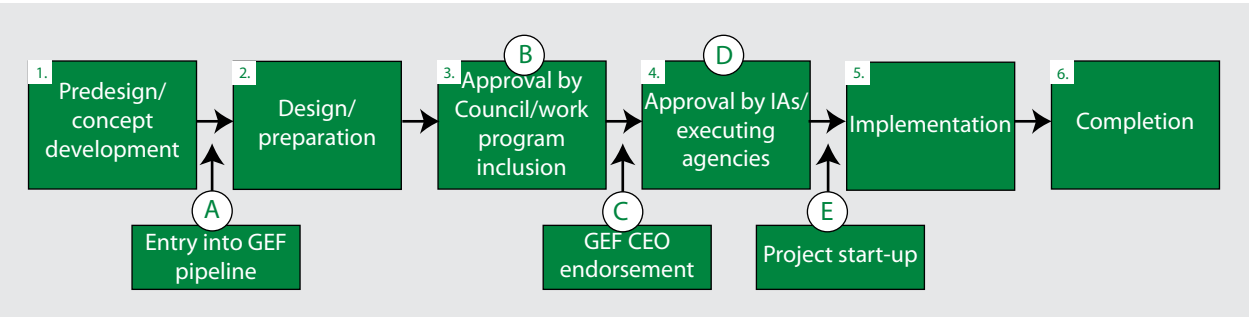
7.1 Time and Effort Needed to Develop and Implement a Project

The recently completed evaluation of the GEF project Activity Cycle (GEF EO 2007) presents the first comprehensive analysis of how projects are prepared, approved, and implemented and is therefore used as the main reference for this section.

The GEF project Activity Cycle has six steps: concept development, preparation, approval by the GEF Secretariat and Council, approval by Implementing Agencies, implementation, and completion (see figure 7.1). However, the project cycle differs slightly depending on the modality used (full- or medium-size project, enabling activity, or SGP). Also, global and regional projects differ from the ordinary cycle, because the detailed design at the country level is undertaken after appraisal and therefore requires an additional planning process after approval.

Figure 7.1

GEF Activity Cycle



All GEF Agencies have their own project cycles, which overlap and sometime conflict with the one used by the GEF. The majority of government and international NGO interviewees said that they found the project cycle confusing and inefficient. It was perceived as a "black box" that required specialist knowledge to access. Those executing GEF-supported projects in the field have emphasized the urgent need for harmonization to avoid submitting documents having different formats or templates to satisfy the needs of the GEF Secretariat, the government, and the Implementing Agencies. For example, for Environment Program II and III, two project documents were produced for UNDP and the World Bank; during implementation, two separate supervision reports were produced.

Processing of SGP activities differs from that of other GEF projects. The National Steering Committee decides on project proposals. The national coordinator screens proposals for their relevance, and a technical review committee conducts a full appraisal of relevant submissions, which in turn, the steering committee uses for appraisal. Once a microproject is approved, the national SGP coordinator is authorized by the United Nations Office for Project Services to sign a memorandum of understanding and begin disbursement.

As the Madagascar SGP has just begun operations, it was not appropriate to include the SGP in this evaluation on the efficiency of project processes, as it seems logical that much more time is needed in the first round of funding to provide guidance on how to prepare eligible proposals as at a later stage.

Time Needed to Prepare GEF Projects

Table 7.1 shows that considerable variation exists in the time it takes for a proposed FSP to move from one phase to another. On average, it takes about 2.13 years (778 days) to get from program entry to implementation start-up (A–E). To place Madagascar in context with other CPE countries, this is about 50 percent more efficient than the results for Cameroon and 25 percent more efficient than the results for Costa Rica. However, the preparation time is still greater than comparable processing times for non-GEF projects, such as the World Bank, which takes 1.5 years on average to process an investment project.

For Madagascar, the longer processing times for FSPs relate to several specific factors: Environment Program II and III required completion of a number of studies during preparation; also, preparation of Environment Program III was held up, whereas evaluations for Environment Program II by UNDP and the World Bank were completed and submitted to GEF Secretariat review before project approval.

In the case of the only national MSP (Anjozorobe), preparation took only 438 days or 1.2 years. For

Table 7.1

Duration of Activity Cycle for GEF-Supported FSPs in Madagascar
Days

Project	A→B	B→C	C→D	D→E	B→E	A→E
Environment Program II	441.0	103.0	30.0	182.0	315.0	756.0
Environment Program III	161.0	108.0	64.0	468.0	640.0	801.0
Average	**301.0**	**105.0**	**47.0**	**325.0**	**477.5**	**778.0**
Average (years)	**0.8**	**0.3**	**0.1**	**0.9**	**1.3**	**2.1**

Notes: — = unavailable or unreliable data. See figure 7.1 for stages of GEF Activity Cycle (A–E).

Fanamby, the process of applying for GEF funds was complex and involved many changes in the project design and significant communication exchanges. This was due in part because, as the only large national NGO, Fanamby not only had to propose a viable project, but also to build a relationship with UNDP.

Enabling activity preparation times have generally been short, as they do not require GEF Council approval, except for the initial Clearing House Mechanism and UNCBD projects, which took long periods to develop (three to four or more years). Hence, the average processing time at 507.5 days was high (see table 7.2).

For regional projects, the preparation times averaged nearly 3.8 years (see table 7.3).[1] The long project preparation times are due to project complexity because of the larger number of stakeholders; hence, gaining input and agreement is more challenging.

The processing times for national and regional projects by the Implementing Agencies generally reflect the involvement of the World Bank, UNDP, and UNEP in FSPs (national and regional) and enabling activities. World Bank and UNDP processing times are thus broadly similar at 11 months to 1.1 years, whereas UNEP's is 1.5 years because of slower enabling activity processing times (see figure 7.2).

The evaluation was not able to quantify the impact of the RAF on project preparation time, because all but one of the project concepts that are currently under development had not been submitted to the GEF Secretariat (and hence, remained pre-pipeline). Several of the government interviewees and Implementing Agencies stated that the project cycle requirements continued to be complex and subject to significant changes in formats with the potential of delaying project preparation under the RAF.

Actual Project Completion Dates

The average planned length of implementation for the FSPs (national and regional) was 4.5 years (see table 7.4), and the actual average length of implementation was about 5 years. For MSPs, planned implementation was 3 years, and actual implementation was about 4.4 years. Project extensions for regional projects arose, because coordination

Table 7.2

Duration of Activity Cycle for GEF-Supported Enabling Activities in Madagascar

Project	B→E (days)
Preparation of a National Action Program to Adapt to Climate Changes	171.0
Enabling Madagascar to Prepare Its Initial National Communication in Response to Its Commitments to UNFCCC	239.0
Clearing House Mechanism Enabling Activity	932.0
Biodiversity Enabling Activities Add-on: Assessment of Capacity-Building Needs and Establishment of a National Clearing House Mechanism	—
Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs)	8.0
First National Report to the CBD	1,501.0
Consultations for the Second National Report on Biodiversity (add-on)	194.0
Average for all enabling activities	**507.5 (1.4 years)**

Notes: — = unavailable or unreliable data. For enabling activities, CEO approval was used as a proxy for step B (Council approval); there is no step A or C.

Table 7.3

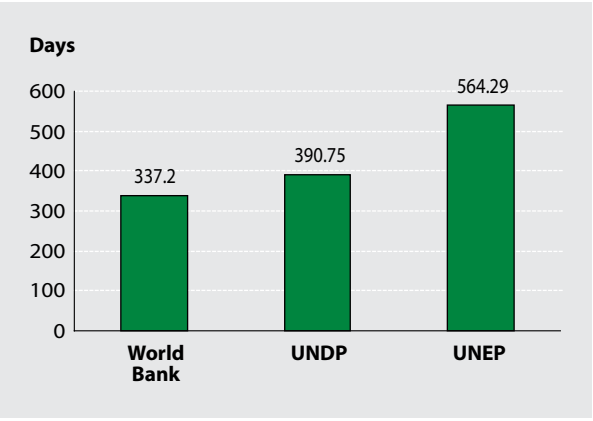
Duration of Activity Cycle for GEF-Supported Regional and Global Projects in Madagascar
Days

Project	A→B	B→C	C→D	D→E	B→E
Demonstrating Cost-Effectiveness and Sustainability of Environmentally-sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa	—	—	—	—	—
Coral Reef Monitoring Network in Member States of the Indian Ocean Commission within the Global Reef Monitoring Network	n.a.	n.a.	n.a.	191	288
Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project	673	583	33	—	—
Programme for the Agulhas and Somali Current Large Marine Ecosystems: Agulhas and Somali Current Large Marine Ecosystems Project	669	462	37	193	1,361
Addressing Land-based Activities in the Western Indian Ocean	2632	383	106	48	3,169
Regional Strategic Investment Program for SLM in Sub-Saharan Africa	—	—	—	—	—
Regional Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD	n.a.	n.a.	n.a.	50	112
Western Indian Ocean Islands Oil Spill Contingency Planning	334	146	23	103	606
Total	**4,308**	**1,574**	**199**	**585**	**5,536**
Average	**1,077**	**393**	**50**	**117**	**1,384**
Average (years)	**2.9**	**1.1**	**0.1**	**0.3**	**3.8**

Notes: — = unavailable or unreliable data; n.a. = not applicable. See figure 7.1 for stages of GEF Activity Cycle (A–E).

Figure 7.2

Average Duration of Activity Cycle for Madagascar Projects by GEF Agency



Note: Duration is time between project approval and project start-up.

among countries is often challenging and in-country capacities vary, which slows implementation. For the enabling activities, several relatively straightforward projects have been completed after significant delays in the "official" closing. The evaluation was unable to establish clearly why delays occurred, as well as why enabling activities, such as the UNFCCC national report, have been submitted.

How Much Does It Cost to Prepare a GEF Project?

The GEF provides funding for project preparation (project preparation grants) to Implementing Agencies, who thought these grants did not reflect the true costs of project preparation, particularly of Environment Program III and, in preparation, the irrigation and watershed management project.[2]

Only one MSP has been prepared in Madagascar. Fanamby reported that the preparation grant (project development facility block A grant) funding was not sufficient to cover the costs of preparation. Interestingly, higher costs have not been a

Table 7.4

Planned and Actual Durations of National and Regional Projects in Madagascar

Project	Target completion date	Actual completion date	Planned duration (years)	Difference (days)
FSPs				
Environment Program Support Project	6/30/2003	6/30/2003	5.0	0
Western Indian Ocean Islands Oil Spill Contingency Planning	6/30/2003	6/30/2004	4.0	366
Average difference				**183**
MSP				
Coral Reef Monitoring Network in Member States of the Indian Ocean Commission within the Global Reef Monitoring Network	1/31/2004	7/31/2005	3.0	547
Average difference				**547**
Enabling activities				
Preparation of a National Action Program to Adapt to Climate Changes	2/1/06	8/1/2007	1.5	547.5
Clearing House Mechanism Enabling Activity	11/1/1998	7/1/2005	1.0	2,434.0
First National Report to the CBD	12/19/1998	9/30/1999	0.3	285.0
Average difference				**1,088.0**

specific factor in depressing MSP development. The main reasons instead relate to the government favoring FSPs; the international NGOs that did attempt to develop proposals submitted them late and missed out on funding. Demand has also been depressed because of the lack of national NGOs, except for Fanamby.

Enabling activities (UNCBD, Clearing House Mechanism, UNFCCC, POPs, and so on) are implemented within the framework of global and regional umbrella projects, which were approved by the GEF Council to enable executing agencies to appraise specific country activities. In turn, national actors are able to copy and paste most of a country proposal from the framework project. This has resulted in generic proposals, but the costs of preparation have in turn been reduced.

In sum, all stakeholders criticized the project cycle for its complexity, slowness, and costliness, which has been exacerbated because of delays and on occasion lack of quick responsiveness from the GEF Secretariat.[3]

How Much Does It Cost to Implement a GEF Project?

In addition to project costs, the GEF provides its Implementing Agencies with funds for supervision (since 2006, 10 percent of project costs, but previously 9 percent). Within the project costs, there is usually a management cost (an average of about 10 percent) that is reimbursed to the national executor. Under Environment Program III, project fees for supervision and M&E were set at $1.2 million ($899,000 for the World Bank and $382,000 for UNDP), which is about 1 percent of the total cost of the project. Other donors also provide funds for supervision in the case of Environment Program III.

The evaluation found the project fees were sufficient. However, maintaining implementation progress does place in-country staff under

considerable time and resource pressures, particularly when the GEF projects are not their only areas of responsibility.

7.2 Stakeholder Roles and Responsibilities in Project Implementation

The evaluation of these issues focused on the following:

- Who implements GEF projects?
- Are stakeholder roles and responsibilities clear?
- How is coordination handled?

Who Implements and Executes Projects?

About 75 percent of the funding for national and regional projects and 45 percent of the projects have been channeled through the World Bank; UNDP has been involved in implementing 13 percent of the funds and 33 percent of the projects. UNEP, which does not have an office in Madagascar, has been involved in implementation of 12 percent of funds and 32 percent of projects through its involvement in enabling activities and regional projects.

The involvement of other Implementing Agencies is limited; the World Health Organization has been involved in the DDT project, the United Nations Office for Project Services has had an executing agency role in the ASCLME project.[4] Neither the African Development Bank nor the International Fund for Agricultural Development have been involved at all. The country office presence of the World Bank and UNDP, with experienced staff who are familiar with the GEF, gives them a clear comparative advantage over other GEF Agencies for FSP and MSP development.

The official executing agency of 9 of the 10 national projects is the MINEFT; Fanamby has been responsible for the execution of the only MSP. The regional projects have tended to be executed through intergovernmental bodies, such as the Indian Ocean Commission (oil spill and highway project). Environment Program II and III have had the significant involvement of institutions outside (but related to the MINEFT), such as ANGAP, ONE, SAGE, the National Association for Environmental Actions, and presently, the program coordination unit CELCO. The reasons for this have primarily related to the lack of capacity within the ministry; thus, the MINEFT has not provided effective field execution. Other ministries, such as the Ministry of Agriculture, Livestock, and Fisheries, will be involved with several sustainable land management investments due to emerge from the regional SLM project, but have not been involved in Environment Program II or III.

Are Stakeholder Roles and Responsibilities Clear?

Based on the review of evaluation reports and interviews, challenges still exist regarding clarifying the roles and responsibilities in the Madagascar environment sector. The institutional landscape is complex with many different actors involved at central and decentralized levels. Many interviewees pointed to a lack of understanding and communication among the institutions involved in Environment Program III on each other's roles and responsibilities. This has reduced the efficiency of activities in the field and prevents regular sharing of information on emerging experiences of good practices and failures.

In terms of the regional projects, Madagascar's involvement in international waters projects has been well developed under the oil spill and highway projects with a clear role for the Ministry of Transport and the MINEFT. But, in the ACSLME project, SAGE has the lead coordination role

through its focal point, with limited involvement of the Ministry of Agriculture, Livestock, and Fisheries through the working group led by SAGE. In the case of the WIO-LaB project, the roles and responsibilities for implementation have been placed within ANGAP, whose primary role is protected area management and not land-based and marine pollution reduction, which the project is trying to address. This indicates a mismatch between institutional competence and project goals and activities (UNEP 2007).

Again, the challenge of defining and allocating roles and responsibilities is not a new issue to Madagascar; the previous independent evaluations of Environment Program I and II (World Bank 1997 and 2000) highlight a lack of clarity in roles and responsibilities that exist from the national (MINEFT) to the community level. This is not a surprising finding, given the complexity and size of FSPs; however, it is a recurring challenge for the environment sector, which government could help greatly in clarifying.

How Is Coordination Handled?

This question was analyzed by reviewing reports of the only completed national FSP—Environment Program II—as well as implementation reports of Environment Program III and interviews with stakeholders.

In general, because of the large number of stakeholders involved in Environment Program II and III, coordination at many levels has been challenging. Several attempts have been made to solve this issue. For example, under Environment Program II, coordination was planned to align donor and government interests and activities, particularly regarding developing common implementation systems and monitoring, developing thematic linkages across the environment and rural development sectors, and developing 3) spatial linkages among national and local institutions. The World Bank's evaluation had two specific lessons addressing the coordination issue: first, the need to coordinate use of microproject approaches; and, second, the requirement for intersectoral coordination, that is, not to plan environmental management in isolation.

In interviews with a number of donors, the government, and international NGOs, these issues were repeatedly raised, indicating that Environment Program III coordination remains a persistent challenge in terms of synergies between donor-funded activities and interministerial activities and between M&E systems and reporting frameworks. Donors and the government have tried to address the challenges through a multidonor and government steering committee (see figure 7.3), but this has not met frequently and was widely seen as being donor and not government driven. This is due in part to the institutional weaknesses within the MINEFT and the turnover of staff since the beginning of Environment Program III. Again, the present situation provides a great deal of opportunity for leadership to resolve the coordination challenge, particularly as the government is now more empowered to allocate resources under the RAF.

7.3 The GEF Operational Focal Point Mechanism

The GEF operational focal point is located within the MINEFT. This position was created in Madagascar in 1994. About 11 different people have held the office, and, in the past four years, the holder of the position has changed four times.[5] This turnover is partially related to turnover in the office of the minister (eight changes in the past 15 years), which has often occasioned a change in the operational focal point as well, as they tend to be political appointees. This has

created a lack of institutional continuity, because each new holder of the position must familiarize him- or herself with the GEF and the Madagascar portfolio. The result is inadequate understanding of GEF focal areas, review criteria, and other guidelines. Consequently, the government tends to take a passive role in project development and uses Implementing Agency, international NGOs, and consultants to assist with proposal development. Although this situation draws on the best available expertise, it does not improve capacities within the MINEFT and cannot augment country drivenness and ownership.

The evaluation found that Madagascar lacks a stable interministerial technical committee (GEF national committee) to coordinate across focal areas[6] and to discuss project proposals and the RAF allocation in relation to national environmental issues in a structured manner. This is not to say that a committee has not met to discuss GEF issues, but when it has met, it can only react to issues and therefore cannot provide a structured and proactive system.[7] The situation is made more challenging by the spread of some of the technical focal points for environmental conventions across a number of institutions, which are represented by busy technical staff with numerous other assignments (see figure 7.3).

The joint donor and government coordination committee for Environment Program III has not met frequently in recent months and is driven by the program; thus, it does not have the long-term official mandate to address cross-cutting national and global environmental issues.

The present operational focal point office is able to spend about 20 percent of work time on GEF issues and has insufficient staff and resources to assist with assessment of project proposals and/or project concept development.[8] The MINEFT has not established a GEF project database that can provide information on project approval or implementation progress and has no M&E system in place. The time and resources available to conduct M&E and supervision of the portfolio leaves substantial room for improvement.

In terms of Madagascar's (that is, the operational focal point's) reaction to the RAF, there seems to be an absence of definitive strategies and plans for using GEF resources, although the new RAF appears to trigger opportunities for a structured approach, given the resources available to Madagascar. The previous operational focal point was involved in drawing up an initial RAF list, but the present focal point had little knowledge of how or why certain project proposals were put forward.

In discussions during the evaluation, the operational focal point outlined some of the challenges:

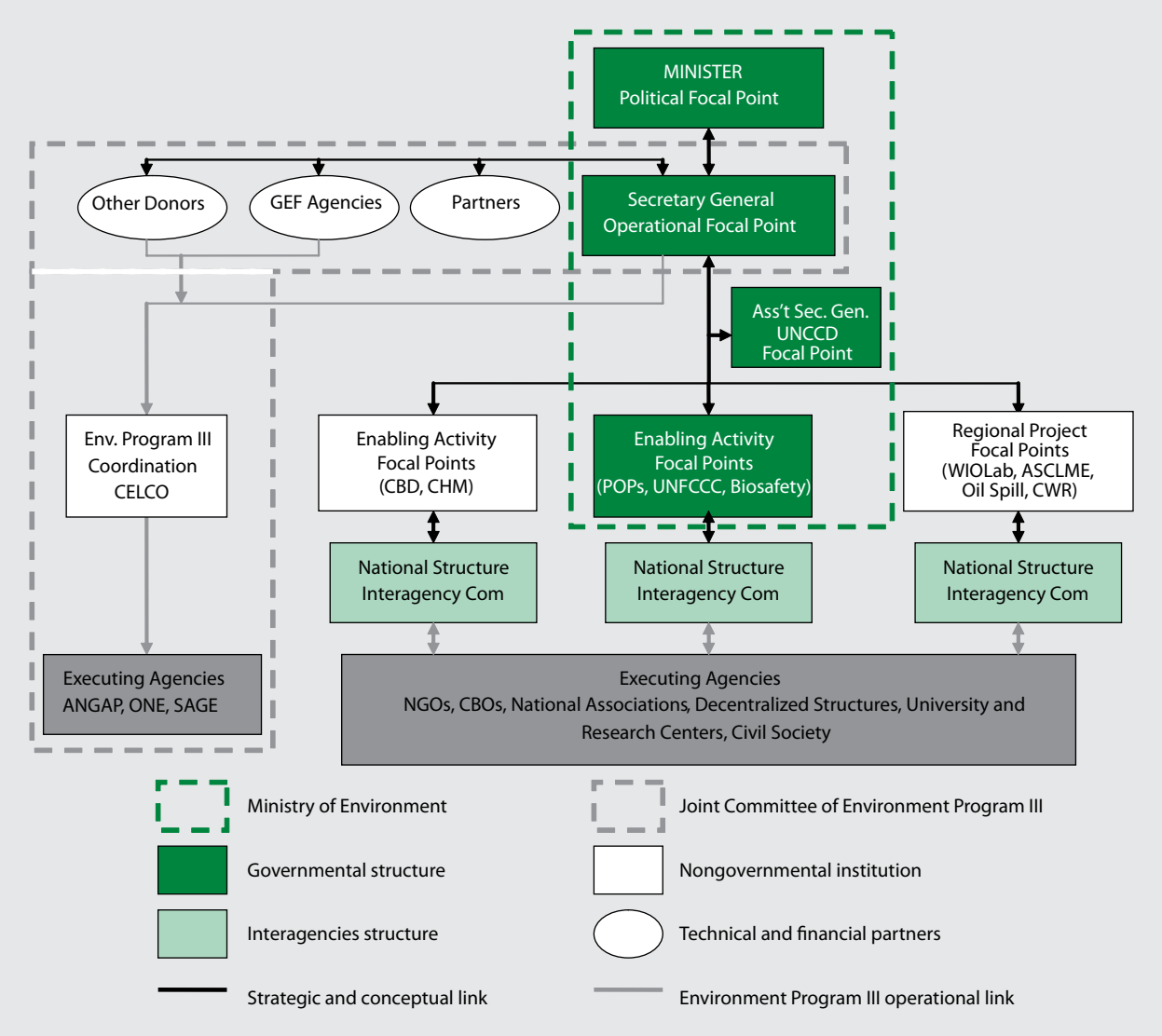
- Imperfect coordination system on project development and the environment sector and the need to go beyond project- and program-based coordination
- Limited M&E system and database of GEF projects and no structure for sharing knowledge
- A need to involve the operational focal point in existing M&E mechanisms of the Implementing Agencies (involving M&E exercises)
- A need for more resources from the GEF to enable the focal point to be operational

7.4 Lesson Learning across GEF Projects

Lesson learning or knowledge sharing does take place at an official level within the GEF national portfolio in Madagascar. Based on review of project proposals for Environment Program II and III, lessons from previous phases were clearly taken into account during the design stage. For example,

Figure 7.3

Interrelationships within Madagascar's Environment Sector



Note: CHM: Clearing House mechanism; CWR: crop wild relative project.

key lessons on complexity, overly ambitious objectives, M&E, and cooperation were important outcomes from the Environment Program I and II evaluations. The effect of those lessons on Environment Program III implementation is questionable, because similar issues in project implementation are arising again.

No formal modality for exchange of lessons learned and knowledge sharing exists between GEF projects and programs and other donor and international NGO environmental programs. Despite the plethora of activities under way that address biodiversity conservation in Madagascar, no lessons can be learned without improvements in M&E.

No opportunities currently exist to improve knowledge management and lesson learning. For example, Conservation International's small grants program and the GEF SGP, both of which are relatively recent and similar, currently have little knowledge of each other's operations; as they develop, opportunities for synergies will arise. Similarly, experiences from the Anjozorobe project accumulated by Fanamby have good potential for wider dissemination, as Fanamby will continue to have a presence and involvement in conservation beyond the project.

7.5 Summary

A national FSP took 2.13 years to get from program entry to implementation and five years from implementation to completion. The costs of project preparation have usually exceeded the funds available through GEF preparation grants. The majority of stakeholders were critical of the project preparation process for its complexity and lack of clarity on bureaucratic procedures and GEF strategies.

The World Bank and UNDP have been the dominant Implementing Agencies, in terms of funding for national FSPs and MSPs; these Agencies have the requisite in-country expertise to assist the government with the development and implementation of projects. Other GEF Agencies, such as the International Fund for Agricultural Development, African Development Bank, and the Food and Agriculture Organization of the United Nations, have not been involved.

The evaluation confirms the findings of previous studies that roles and responsibilities of project execution lack clarity. In several cases, the institutional positioning of focal points has not been matched effectively with the goals and objectives of the project. Coordination has also been highlighted as a challenge in previous studies, and the evaluation reconfirms that the issue remains for Environment Program III.

The evaluation found good opportunities for improving the operational focal point mechanism, both in terms of coordinating and leading on GEF issues, but more broadly across the environment sector.

Lesson learning and knowledge management have been weak, as evidenced by the reemergence of challenges from Environment Program I and II to Environment Program III. At the same time, weak M&E hampers opportunities for effective lesson learning in terms of recognizing success and reducing failure.

Notes

1. Based on an incomplete data set.
2. This project is now proposed under the SLM strategic investment program regional project.
3. For example, the National Capacity Self-Assessment process was held up because of delays in approval from the GEF Secretariat.
4. The coordinating office for the project is based in South Africa.
5. The political focal point (the minister) has also changed four times in the past four years.
6. Focal area technical committees are organized under the convention focal points.
7. For example, the evaluation team requested the minutes of the RAF meetings of the committee and was unable to obtain them.
8. The operational focal point is assisted in GEF matters by one permanent technical person, who has the GEF folders, among other responsibilities. This same person is the land degradation focal point.

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Global Environment Facility
Evaluation Office
1818 H Street, NW
Washington, DC 20433
USA

www.gefeo.org