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FOCAL AREA STRATEGIES AND STRATEGIC PROGRAMMING FOR GEF-4

Recommended Council Decision

The Council reviewed document GEF/C.31/10, *Focal Area Strategies and Strategic Programming for GEF-4*, and approves the strategies as a basis for guiding the programming of resources during GEF-4. The Council agrees that the structure of long-term strategic objectives and strategic programs for a replenishment period should replace the previous operational programs and strategic priorities.

The Council requests the Secretariat, in collaboration with the GEF agencies, to operationalize the strategic programs and objectives in alignment with the ongoing development and implementation of the results-based management framework.

The Council requests the Secretariat to initiate work on the development of strategic objectives and programs for GEF-5 in 2008 with a view to presenting proposed strategic programming for GEF-5 to the Council at its first meeting in 2009.

EXECUTIVE SUMMARY

1. Revised strategies and proposed strategic programming for GEF-4 are presented for the six focal areas of the GEF and for two cross-cutting areas (sustainable forest management and sound chemicals management).
2. The revised strategy papers presented as annexes to this document are the result of a consultative process involving external advisory groups and contributions from Council Members, Convention secretariats, GEF agencies, STAP, and other GEF partners.
3. The proposed long-term strategic objectives for the focal areas are consistent with the focal area strategies prepared for the negotiations for the fourth replenishment of the GEF Trust Fund in 2005 and presented to Council in December 2006. Equivalent strategic objectives have been defined for the two cross-cutting areas. The expected long-term impacts associated with each strategic objective have been explicitly stated to emphasize the GEF's drive for results.
4. As a step towards a more programmatic approach, strategic programs have been described in support of the long term strategic objectives. These strategic programs define the strategic focus of the GEF during the fourth replenishment period. Expected outcomes associated with each strategic program are explicitly stated. These expected outcomes represent the collective results from the interventions supported during GEF-4 under each strategic program, although these results may only materialize later.
5. The structure of long-term strategic objectives and strategic program that are redefined for every replenishment period is suggested to replace the previous structure of operational programs and strategic priorities. The proposed structure balances continuity and flexibility and supports the emphasis on results.
6. Indicators have been identified for each expected impact (at the long-term strategic objective level) and for each expected outcome (at the strategic program level). These indicators will enable a systematic monitoring of the actual achievement of the expected impacts and outcomes. The indicator framework will be further developed in connection with the emerging results-based management framework for the GEF.

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BACKGROUND

1. The policy recommendations for the fourth replenishment of the GEF Trust Fund requested the Secretariat to review and revise as necessary the six focal area strategies, taking into account cross-cutting issues of sustainable forest management and sound chemicals management. The revised strategies were also to provide the basis for a simplified approach to the GEF's operational programs and strategic objectives for the fourth replenishment of the GEF Trust Fund.

2. Working drafts of focal area strategies and two additional draft papers addressing the cross-cutting issues of sustainable forest management and sound chemicals management were presented to Council in December 2006. These papers were based on the focal area strategies prepared at the end of 2005 in preparation for the negotiations for the fourth replenishment of the GEF Trust Fund.

3. Council reviewed the working drafts and requested the Secretariat to continue its work to revise the focal area strategies along the following lines:

- (a) the revised focal area strategies should focus on global outcomes and impacts of future GEF interventions and should provide a basis for the development of measurable results indicators;
- (b) the focal area strategies should be focused on a definite set of priority issues reflecting major global environmental concern;
- (c) cross-cutting issues should to be more systematically identified, analyzed and integrated in the focal area strategies; and
- (d) there is a need for more harmonized and integrated approaches to capacity building, knowledge management and learning, and engagement of the private sector across the focal areas.

4. In December 2006, the CEO presented to Council a five point sustainability compact to increase the efficiency and impact of the GEF. A central element of this proposed reform package was to move away from the previous single-project interventions towards a more programmatic focus for the GEF. The purpose of this move is two-fold: to focus the limited funding resources of GEF-4 on a set of priority issues of global environmental concern, and to achieve higher impact and visibility of the GEF by linking project interventions together in a programmatic context.

THE PROCESS FOR REVISION OF THE FOCAL AREA STRATEGIES

5. In order to ensure a broad and consultative process, the CEO established five Technical Advisory Groups (TAGs) on biodiversity, climate change, sustainable land management, international waters, and sound chemicals management, and a Strategy Advisory Group (SAG) as an overarching coordinating group.

6. Each TAG was composed of three external experts, selected among nominations by the Council Members, a representative from the secretariat of the relevant Convention¹, a member of STAP, and a member from the GEF Secretariat who served as technical secretary and convener of the TAG. The TAGs typically met weekly by teleconference from January to April 2007. In addition, a two-day joint TAGs meeting was organized in Washington, D.C., in March 2007 to allow for more in-depth discussion within the TAGs as well as discussions between the TAGs on cross-cutting issues. This meeting was also used to convene an ad hoc working group on Sustainable Forest Management with representatives from the TAGs on biodiversity, land degradation and climate change as well as two additional external experts.

7. The SAG was composed of one representative from each of the five TAGs, the Chair of STAP, and four external experts. Meetings of the SAG, convened and chaired by the CEO, were organized in Washington, D.C., in February and April 2007, to review drafts papers presented by the TAGs and to discuss cross-cutting issues. The GEF agencies and the GEF Evaluation Office were invited to attend the SAG meetings as observers.

8. Working drafts of the focal area strategies and minutes from the meetings of the TAGs and the SAG were posted on the GEF website (under “Policies”) throughout the process along with the terms of reference and membership of the advisory groups. Comments on the working drafts received from the GEF partners throughout the process were posted on the website. In particular, Council Members and were invited to provide comments on the draft strategy papers presented to the SAG in April 2007.

9. The product of this collective effort is presented to Council under the responsibility of the GEF Secretariat in the attached revised strategy papers for each of the six GEF focal areas plus for the cross-cutting areas of sustainable forest management and sound chemicals management. The Secretariat would like to thank all participants in this process, in particular the members of the TAGs, for their invaluable contributions and advice, based on which the Secretariat has prepared the final draft focal area strategy papers for consideration and approval by Council.

MOVING TOWARDS A PROGRAMMATIC FOCUS FOR GEF-4

10. Each of the attached strategy papers contains:

- (a) a long-term strategy consistent with the working drafts presented to Council in December 2006 and with programming for the fourth replenishment of the GEF Trust Fund, adjusted in accordance with the guidance provided by Council Members; and
- (b) proposed strategic programming for GEF-4, as further described below.

11. The focal area strategy papers define a set of *strategic programs* for GEF-4 within each focal area that would support the achievement of the long-term *strategic objectives*, which have been revised from the focal area strategies presented to Council in December 2006, based on the

¹ The TAG on Chemicals included an additional member from the Multilateral Fund for the Montreal Protocol.

comments from Council. The strategic programs have been selected and defined in view of their importance, urgency and cost-effectiveness from a global environment perspective, as well as the priorities identified by countries, especially in the context of the implementation of the RAF, as well as overall guidance from the Multilateral Environmental Agreements. The strategic programs provide an intermediate link between the project level and the overall objectives of the GEF within the focal areas.

12. The strategic objectives and strategic programs for the six focal areas and for the cross-cutting areas of sustainable forest management and sound chemicals management are summarized in the table below. The strategic programs all represent a focusing in relation to the strategic objectives, although there is a slight difference among the focal areas in how one level relates to the other. In the biodiversity focal area, a number of strategic programs are defined for each strategic objective, whereas for land degradation and international waters, the set of strategic programs collectively supports the strategic objectives. For climate change, the strategic objectives were already relatively concrete, and the strategic programs represent a selection of those areas that will be pursued in GEF-4. For sustainable forest management and sound chemicals management, the listed strategic programs present ways by which these two cross-cutting areas will be supported by interventions in the six focal areas during GEF-4 and by additional strategic programs cutting across the focal areas.

13. The Secretariat proposes that the structure of strategic objectives and strategic programs will replace the previous structure of GEF operational programs (OPs) and strategic priorities. The proposed structure of strategic objectives covering the long-term perspective versus strategic programs covering the possible achievements from interventions over a replenishment period is more readily aligned with the emerging results-based management framework, as further described below.

Table 1: Strategic objectives and strategic programs

Strategic Long-term Objectives	Strategic Programs for GEF-4
BIODIVERSITY	
<p>1: To catalyze sustainability of protected area (PA) systems</p>	<p>1. Sustainable financing of PA systems at the national level 2. Increasing representation of effectively managed marine PA areas in PA systems 3. Strengthening terrestrial PA networks</p>
<p>2: To mainstream biodiversity in production landscapes/seascapes and sectors</p>	<p>4. Strengthening the policy and regulatory framework for mainstreaming biodiversity 5. Fostering markets for biodiversity goods and services</p>
<p>3: To safeguard biodiversity</p>	<p>6. Building capacity for the implementation of the Cartagena Protocol on Biosafety 7. Prevention, control and management of invasive alien species</p>
<p>4: To build capacity on access and benefit sharing</p>	<p>8. Building capacity on access and benefit sharing</p>
CLIMATE CHANGE	
<p>1: To promote energy-efficient technologies and practices in the appliance and building sectors</p>	<p>1. Promoting energy efficiency in residential and commercial buildings</p>
<p>2: To promote energy-efficient technologies and practices in industrial production and manufacturing processes</p>	<p>2. Promoting energy efficiency in the industrial sector</p>
<p>3: To improve the efficiency and performance of existing power plants</p>	<p><i>Strategic objective not pursued directly in GEF-4</i></p>
<p>4: To promote on-grid renewable energy</p>	<p>3. Promoting market approaches for renewable energy</p>
<p>5: To promote the use of renewable energy for the provision of rural energy services (off-grid)</p>	<p><i>Strategic objective not pursued directly in GEF-4</i></p>
<p>6: To support new low-GHG emitting energy technologies</p>	<p>4. Promoting sustainable energy production from biomass</p>
<p>7: To facilitate market transformation for sustainable mobility in urban areas leading to reduced GHG emissions</p>	<p>5. Promoting sustainable innovative systems for urban transport</p>
<p>8: To support pilot and demonstration projects for adaptation to climate change</p>	<p><i>Reference is made to the SPA, SCCF and LDCF, and to the principle of GEF-wide climate proofing described in Annex 2</i></p>
LAND DEGRADATION	
<p>1: To develop an enabling environment that will place Sustainable Land Management (SLM) in the mainstream of development policy and practices at the regional, national and local levels</p>	<p>1. Supporting sustainable agriculture and rangeland management 2. Supporting sustainable forest management in production landscapes 3. Investing in innovative approaches in SLM</p>
<p>2: To upscale SLM investments that generate mutual benefits for the global environment and local livelihoods</p>	

INTERNATIONAL WATERS	
<p>1: To foster international, multi-state cooperation on priority transboundary water concerns</p> <p>2: To catalyze transboundary action addressing water concerns</p>	<p>1. Restoring and sustaining coastal and marine fish stocks and associated biological diversity</p> <p>2. Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA</p> <p>3. Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins</p> <p>4. Adapting to melting ice in high-altitude basins and polar systems</p>
POPs	
<p>1: To reduce and eliminate production, use and releases of POPs</p>	<p>1. Strengthening capacity for NIP (National Implementation Plan) development and implementation</p> <p>2. Partnering in investments for NIP implementation</p> <p>3. Generating and disseminating knowledge to address future challenges in implementing the Stockholm Convention</p>
ODS	
<p>1: To phase out production and consumption of ODS</p>	<p>1. Phasing out HCFC and strengthening of capacities and institutions</p>
SUSTAINABLE FOREST MANAGEMENT	
<p>1: To protect globally significant forest biodiversity</p> <p>2: To promote sustainable management and use of forest resources</p>	<p>1. Sustainable financing of protected area systems at national level (same as BD#1)</p> <p>2. Strengthening terrestrial protected area networks (same as BD#3)</p> <p>3. New: Forest conservation as a means to protect carbon stocks and avoid CO₂ emissions (cross-cutting BD/CC/LD)</p> <p>4. Strengthening the policy and regulatory framework for mainstreaming biodiversity (same as BD#4)</p> <p>5. Fostering markets for biodiversity goods and services (same as BD#5)</p> <p>6. New: Promoting sustainable energy production from biomass (cross-cutting CC#4/BD/LD)</p> <p>7. Supporting sustainable forest management in production landscapes (same as LD#2)</p>
SOUND CHEMICALS MANGEMENT	
<p>1: To promote sound management of chemicals for the protection of human health and the global environment</p>	<p>1. Integrating sound chemicals management in GEF projects</p> <p>2. Articulating the chemicals-related interventions supported by the GEF within countries' frameworks for chemicals management</p>

A COMMON RESULTS FRAMEWORK FOR THE FOCAL AREA STRATEGIES

14. A major effort by the TAGs has been to align the focal area strategies with the emerging results-based management (RBM) framework for the GEF, in order to direct the strategies towards tangible global environmental benefits and to enable adequate reporting on the implementation of the strategies. The RBM framework presented to Council as document GEF/C.31/11 operates at three levels (institution level, focal area programmatic level, and project level) in keeping with GEF's Monitoring and Evaluation Policy. The TAGs have primarily contributed to the content of the RBM framework at the focal area programmatic level.

15. The RBM framework proposed for the GEF is based on the OECD/DAC Glossary of Key Terms in Evaluation and Results-based Management (2002) that defines a hierarchy of result terms from higher order goals, through long-term impacts and medium-term outcomes, to the immediate outputs of interventions. In principle, the entire hierarchy of result terms could be applied to each of the levels of the RBM framework, however, the experience with such a comprehensive approach is that it inevitably leads to redundancy and unnecessary complexity. Instead, a pragmatic simplified approach has been followed, where long-term expected *impacts* on the global environment are assigned to each of the strategic objectives, and intermediate expected *outcomes* are assigned to each of the strategic programs. The expected impacts and outcomes at the programmatic level are supported by the results at the project level. Further description of the RBM framework and its operational aspects is given in document GEF/C.31/11.

16. The TAGs have proposed measurable indicators at the outcome level for each strategic program and at the impact level for each strategic objective. The advisory groups have sought to select appropriate, simple and useful indicators, but have realized that this is not a straightforward task, given the complexity and intricacy of GEF's mission. Indicator development therefore remains an area of work in progress. It should also be emphasized that the monitoring and reporting of measurable indicators can only provide partial evidence and must be supplemented by evaluative judgment in order to assess the achievement of expected outcomes and impacts.

17. It is considered premature at this stage to set specific targets for the expected outcomes and impacts. Setting specific targets that are challenging, yet realistic, requires a thorough analysis of a) the feasibility of the proposed interventions, b) the expected financing from GEF and from co-finance and its geographical distribution, c) the actual baseline in this geographical context, and d) interaction with other ongoing and planned interventions.

CROSS-CUTTING ISSUES

18. Apart from developing revised strategies and strategic programming for GEF's six focal areas, a number of cross-cutting issues were also addressed during this process.

19. *Sustainable forest management* (SFM) was identified as a cross-cutting area where a separate strategy was needed. A strategic approach paper on SFM has previously been presented to Council (ref. GEF/C.27/14). An ad hoc working group on sustainable forest management was

established with representatives from the TAGs on biodiversity, land degradation and climate change as well as two additional external experts. The working group produced a framework strategy for SFM (attached as Annex 7) that provides a coherent description of how the proposed strategic programs in the three focal areas (BD, LD and CC) will jointly contribute to SFM in GEF-4. The framework strategy also proposes two additional multi-focal area strategic programs entitled “Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO2 Emissions” and “Promoting Sustainable Energy Production from Biomass.”

20. *Adaptation to climate change* is directly addressed as a strategic objective under the climate change focal area and is increasingly recognized as a cross-cutting issue by the other focal areas. A principle of ‘climate proofing’ will be followed across the entire GEF-4 portfolio. For example, the biodiversity strategy paper emphasizes the need for capacity building to design resilient protected area systems that can continue to achieving conservation objectives in the face of anticipated climate change and variability.

21. GEF support to sound chemicals management is described in a separate strategy paper (attached as Annex 8) produced by the TAG on chemicals in consultation with the other TAGs. Sound chemicals management is directly addressed in the focal areas of POPs and ODS, and is increasingly recognized as a cross-cutting issue by the other focal areas. A principle of ‘chemicals proofing’ will be pursued in GEF-4 across the focal areas, where relevant.

22. Other inter-linkages between the focal areas are reflected in the respective focal area strategy papers. Thus, the strategic program on marine protected areas in biodiversity is linked to the strategic program on marine fish stocks and associated biodiversity in international waters; the strategic objective of mainstreaming biodiversity in biodiversity, and the strategic program on balancing uses of water resources in international waters are both linked to the strategic program on sustainable agriculture and rangeland management in land degradation; the strategic program on sustainable energy from biomass in climate change is linked broadly to the focal areas of biodiversity and land degradation.

23. A GEF Strategy to Enhance Engagement with the Private Sector was presented to Council in June 2006 and has been further developed with an operational road map for implementation of a GEF Public/Private Sector Partnership Fund (PPP) to support a strategic investment program in competitive technological and financial solutions to global environmental concerns (ref. GEF/C.31/9). Sectoral platforms related to the focal area strategic programs will be developed and implemented under the PPP. Initial consultations have identified possible platforms within biofuels, membrane bioreactors for wastewater treatment in coastal areas and clean energy promoting investment in renewable energy and energy efficiency. These platforms are directly linked to and will support specific strategic programs in the focal area strategies.

24. A cross-cutting goal for the GEF is to ensure that capacity is left behind in countries following project completion - capacity that can be identified and measured using outcome indicators. This will be done by embedding capacity building elements in a coordinated manner in GEF projects by promoting programmatic approaches, where demanded. This would include activities that achieve better defined policy targets, data collection and indicator tracking systems, and use of quantitative metrics and analysis in policy formation and evaluation. This is

in recognition that achieving good environmental performance depends overall upon the level of development and good governance. The impact of this exercise would be strengthened institutional capacity that ensures continuation of global environmental benefit generation.

25. Knowledge management, learning and targeted research are unevenly addressed in the focal area strategy papers. A more comprehensive approach to targeted research is needed to strengthen innovative approaches and to support the development of future strategic programs. Knowledge management and systematic learning are equally important to ensure that the insights generated through project interventions add value internally and externally.

RECOMMENDATIONS FOR FOLLOW-UP

26. The GEF Secretariat finds that the strategy papers presented to Council in the document represent a significant step towards greater strategic focus and increased impact of GEF's interventions during GEF-4, but also recognizes that there are several areas where there is still scope for further development.

27. There is a need for further refinement of the indicators and to define baselines and targets related to these indicators. This will feed into the ongoing development of a results-based management framework for the GEF.

28. It is proposed that the development of a strategic framework for GEF-5 is given more time and completed well before the replenishment process for GEF-5, so that the revised focal area strategies and proposed strategic programming for GEF-5 can provide a basis for the replenishment negotiations. This implies that the strategy process for GEF-5 should start towards the end of 2008 and be concluded by mid-2009.

ANNEX 1. BIODIVERSITY FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

I. BACKGROUND

1. The Millennium Ecosystem Assessment identified the most important direct drivers of biodiversity loss and degradation of ecosystem goods and services as habitat change, climate change, invasive alien species, overexploitation, and pollution.² These drivers are influenced by a series of indirect drivers of change including demographics, global economic trends, governance, institutions and legal frameworks, science and technology, and cultural and religious values. The biodiversity strategy in GEF-4 addresses a subset of the direct and indirect drivers of biodiversity loss and focuses on the highest leverage opportunities for the GEF to contribute to sustainable biodiversity conservation.

2. The goal of GEF's biodiversity program is the conservation and sustainable use of biodiversity, the maintenance of the ecosystem goods and services that biodiversity provides to society, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. To achieve this goal the strategy encompasses four complementary and mutually reinforcing objectives: a) improving the sustainability of protected area systems, the most predominant and dedicated land-use globally for biodiversity conservation; b) mainstreaming biodiversity conservation and sustainable use into production sectors that impact biodiversity; c) safeguarding biodiversity through: i) building country capacity to implement the Cartagena Protocol on Biosafety (CPB), and ii) prevention, control and management of invasive alien species; and d) capacity building to support the implementation of the Bonn Guidelines on Access to Genetic Resources and Benefit-sharing.³ Underpinning these responses, GEF will support institutional capacity building and the development of the appropriate policy frameworks to ensure sustainable biodiversity conservation. As a whole, the strategy encompasses a range of interventions that respond to key drivers of biodiversity loss as presented in Table One below.

3. The strategy is consistent with the integrated approaches to biodiversity conservation and sustainable use promoted by the ecosystem approach, the primary framework for action under the Convention on Biological Diversity (CBD)⁴. Together, these strategic objectives will make a substantial contribution to implementing most of the Millennium Development Goals, particularly environmental sustainability and poverty reduction, while meeting the priorities identified by the COP of the CBD. In addition, GEF support to policy framework development and strengthening institutions should result in favorable changes in country performance as measured by the RAF.

² Millennium Ecosystem Assessment 2005, *Ecosystems and Human Well-being: Synthesis*, Island Press, Washington DC.

³ Decision CBD COP VII/20.

⁴ Decision CBD COP V/6.

Table 1. Responses to the Key Drivers of Biodiversity Loss

GEF Response Options: Strategic Objectives (Strategic Programs)	Drivers of Biodiversity Loss		
	Habitat Change	Over- exploitation	Invasive Alien Species
	Underlying Driver: Policy and legal framework, institutions and governance		
Sustainable protected area systems (sustainable financing, consolidating marine & terrestrial protected area networks)	✓	✓	
Mainstreaming biodiversity (strengthening the policy and regulatory framework, fostering markets for ecosystem goods and services)	✓	✓	
Safeguarding biodiversity (capacity building in biosafety; prevention, control & management of invasive alien species)	✓		✓
Access and benefit sharing (capacity building on access and benefit sharing)		✓	

II. STRATEGIC FOCUS IN GEF-4

4. Strategic Objective One, “To Catalyze Sustainability of Protected Area Systems,” focuses on improving the sustainability of the protected area system. Support in GEF-4 will be characterized by a sharper focus on improving financial sustainability and enhancing ecosystem representation of protected of area systems. Projects supporting individual protected areas will need to clearly demonstrate their contribution to the sustainability of the protected area system.

5. Strategic Objective Two, “To Mainstream Biodiversity Conservation in Production Landscapes/Seascapes and Sectors,” will support country efforts to integrate biodiversity considerations into those sectors that fall outside the environment sector. During GEF-4, a two-pronged approach will be implemented that focuses on strengthening the policy and regulatory framework necessary for mainstreaming to take place while fostering markets for biodiversity goods and services. Taken together, both activities will help create incentives to change production practices and increase biodiversity mainstreaming. GEF will not provide direct support to adapting production practices to better protect biodiversity to avoid subsidizing the operating costs of enterprises.

6. In the December 2006 version of the strategy submitted to Council, Strategic Objective Three was geared solely to developing country capacity to implement the Cartagena Protocol on Biosafety (CPB). A revision has been made to this strategic objective and it is now titled “To Safeguard Biodiversity”. Capacity building in biosafety to help countries meet their obligations under the CPB as was agreed at the December, 2006 Council meeting will be provided through one strategic program. In addition, a separate strategic program will support integrated approaches to prevent, control and manage invasive alien species.

7. In the December 2006 version of the strategy submitted to Council, Strategic Objective Four was entitled “Generation, Dissemination, and Uptake of Good Practices for Addressing Current and Emerging Biodiversity Issues”. This objective has been reduced in scope and is

now titled “To Build Capacity on Access and Benefit Sharing,” which will be supported through one strategic program. Stand-alone projects to synthesize “good practices” in biodiversity conservation will no longer be funded, as these projects have not added measurable value to the overall biodiversity portfolio during GEF-3.

A. Strategic Objective 1: To Catalyze Sustainability of Protected Area Systems

8. The GEF defines a sustainable protected area system as one that possesses the following characteristics: a) sufficient and predictable revenue available to support protected area management costs; b) the system includes coverage of ecologically viable representative samples of ecosystems; and c) adequate individual, institutional and systemic capacity is in place to manage protected areas such that they achieve their management objectives. GEF will support comprehensive interventions that address these three aspects of protected area management in order to catalyze the long-term sustainability of the system.

9. The focus at the systems level will include integrating protected area management within the management of the broader landscape and seascape. This approach acknowledges the important contributions made to biodiversity conservation and sustainable use by biological corridors and enhanced connectivity between protected areas while addressing the need to manage external threats. In this way, protected areas can better fulfill their fundamental conservation objective while contributing to poverty alleviation in rural areas.

10. The strategy identifies capacity building opportunities to help design resilient protected area systems that can continue to achieve their conservation objectives in the face of anticipated climate change. This will provide a degree of insurance for GEF’s investments and contribute to long-term protected area sustainability. However, although many protected area managers recognize the need to incorporate climate change scenarios within protected area system design, the scientific understanding and basis for doing so is largely undeveloped. The GEF will support adaptation components through the climate change focal area in all projects, when needed.

11. GEF-4 support to catalyzing sustainable protected area systems will be channeled through three strategic programs: Sustainable Financing of Protected Area Systems at the National Level; Increasing Representation of Effectively Managed National Marine Protected Area Networks in Protected Area Systems; and Strengthening Terrestrial Protected Area Networks.

Strategic Program 1: Sustainable Financing of Protected Area Systems at the National Level

12. Restricted budgets and public sector reforms in many countries have resulted in the rapid decline of single-source income from the national budget to support protected area management. Thus, new financing strategies for protected area systems are more critical than ever. Furthermore, protected area agencies and administrations are often ill equipped to respond to the commercial opportunities that protected areas provide through consumptive and non-consumptive uses of biodiversity.

13. Financial sustainability is achieved when a protected area system is able to secure sufficient and predictable levels of resources over the long term to meet its total costs. Through this strategic program, GEF will support comprehensive, system-level financing solutions and help build the capacity required to achieve financial sustainability. This will require interventions that support the development of: a) appropriate policies and laws to allow protected areas to manage the entire revenue stream from generation of income to investment; b) business plans that include multiple funding sources and have a long-term perspective that matches expenditure to revenue; c) agencies responsible for managing protected areas with sufficient capacity to manage protected areas based on sound principles of business planning as well as conservation biology principles; and d) full recognition of the support to protected area conservation and management made by communities living in, and near, protected areas.

14. GEF-supported interventions will use a variety of tools and revenue mechanisms that are responsive to the specific country situation (conservation trust funds, systems of payments for environmental services, easements, debt-for-nature swaps, and other mechanisms) drawing on accepted good practice developed by GEF and others.⁵ GEF will also support policy reform and/or incentives to catalyze engagement of the private sector and other stakeholders to attain improved financial sustainability of protected areas. Individual sites may be funded through this strategic program but only if they demonstrate replicable innovations in protected area management (e.g., revenue generation schemes, co-management, etc.) that will increase the efficiency of the protected area system to meet its management objectives, thereby contributing to financial sustainability.

Strategic Program 2: Increasing Representation of Effectively Managed Marine Protected Areas in Protected Area Systems

15. Historically, the GEF has invested in the conservation of terrestrial ecosystems by a factor of 3:1 when compared with support provided to marine and freshwater ecosystem conservation. As a result of this investment, GEF has been recognized for its substantive contribution to the global achievement of the 10% target of the world's land area under protection.⁶ During GEF-4, GEF will seek to play an equally catalytic role in increasing representation of marine ecosystems within national protected area systems.

16. The GEF will encourage country-level efforts to address the marine ecosystem coverage gap within national level systems. GEF will support the creation and management of national coastal and marine protected area networks (nearshore), including no-take zones, to conserve marine biodiversity, enhance long-term fisheries management, contribute to local livelihoods, help hedge against natural disasters, and mitigate the effects of global climate change.

17. Through the international waters focal area, the GEF has helped establish management and policy frameworks in large marine ecosystems that provide the necessary foundation for marine protected areas to be successful. During GEF-4, the international waters focal area

⁵ GEF Experience with Conservation Trust Funds (GEF Evaluation Report # 1-99). (http://www.thegef.org/MonitoringandEvaluation/MEPublications/MEPArchive/Conservation_TF-Evak__1-99.pdf).

⁶ OPS3: Progressing Toward Environmental Results, Third Overall Performance Study of the GEF.

strategic program on “Restoring and Sustaining Coastal and Marine Fishstocks and Associated Biodiversity” will also complement the biodiversity investment in marine protected areas. When financially and operationally feasible, GEF will support investments in marine protected areas, particularly in those countries where national-level interventions in fisheries management have looked at financial incentives to influence fisheries management, such as changes in subsidies, taxation of vessels, etc. This will help ensure that marine biodiversity investments are taking place within the supportive regulatory framework required for marine protected areas to achieve their management objectives.

Strategic Program 3: Strengthening Terrestrial Protected Area Networks

18. The objective of this strategic program is to ensure better terrestrial ecosystem representation in protected area systems through filling ecosystem coverage gaps (including freshwater, wetlands, temperate and tropical grasslands, Mediterranean ecosystems, lowland tropical forests, etc.). Also relevant are coverage gaps related to habitat for landraces, crop wild relatives of species of economic importance, and ecosystem services. Interventions that seek to address an ecosystem coverage gap will need to demonstrate that human and financial resources are reallocated to the additional protected area and that this reallocation results in a management effort that is consistent with the management levels found throughout the protected area system. This will help ensure the sustainability of the system from a management perspective.

19. GEF will also support targeted research to empirically estimate changes in land use or resource extraction patterns that result from establishing protective status on terrestrial ecosystems. The purpose of this research will be to improve understanding of the effectiveness of different forms of protected areas which will inform decisions within GEF projects on the siting, establishment and design of terrestrial protected area networks. Through establishing the evidence base upon which these kinds of management decisions can be made, GEF will be better positioned to support protected area investments that will achieve their conservation objectives.

B. Strategic Objective 2: To Mainstream Biodiversity in Production Landscapes/Seascapes and Sectors

20. Over the long term, viable biodiversity conservation will require the sustainable management of a landscape and seascape mosaic that includes protected areas and a variety of other land and resource uses, especially as human pressure on land continues to increase. Therefore, parallel to improving the sustainability of protected area systems, GEF will help integrate the conservation and sustainable use of biodiversity into the sectors of the economy that strongly impact biodiversity outside of protected areas--often referred to as “mainstreaming”.⁷ As noted by the Millennium Ecosystem Assessment, the sustainable use of biodiversity will only be achieved once biodiversity is mainstreamed within production sectors. Through this strategic

⁷ The strategy makes use of the results of the STAP Workshop held in Cape Town, South Africa in 2004 on the subject of mainstreaming, where the participants defined the objective of mainstreaming as “to integrate the goals of conservation and sustainable use of biological resources into those sectors, development models, policies, and programs, and therefore all human behavior”. Mainstreaming Biodiversity in Production Landscapes. Caroline Petersen, Brian Huntley, Global Environment Facility, Working Paper 20, November 2005.

objective, substantive contributions to the goal of the land degradation focal area will be realized through the expansion of sustainably managed landscapes.

21. The GEF will support efforts to remove the barriers that prevent public and private sector actors from mainstreaming biodiversity through two strategic programs. The first strategic program, “Strengthening the Policy and Regulatory Framework for Mainstreaming Biodiversity,” will support the development of the policy and regulatory frameworks that promote and reward mainstreaming and build the necessary institutional capacity. The second strategic program, “Fostering Markets for Biodiversity Goods and Services,” seeks to catalyze markets for biodiversity goods and services and promote voluntary environmental certification to generate biodiversity gains through market mechanisms.

Strategic Program 4: Strengthening the Policy and Regulatory Framework for Mainstreaming Biodiversity

22. The incorporation of biodiversity conservation into broader policy and regulatory frameworks is not taking place in many GEF-eligible countries due to a number of constraining factors, some common to conservation generally (poor governance, weak capacity, lack of scientific knowledge) and others specific to the challenge of mainstreaming biodiversity into productive sectors (lack of incentives, inadequate valuation data on biodiversity, etc.).

23. When mainstreaming yields substantial social or private benefits and thus provides incentives for public and private actors to effect policy changes, these actors may be unaware that they have such incentives. In these circumstances, providing information on the value of biodiversity and its contribution to national development or to the ongoing operations of a business that is dependent on biodiversity is paramount. The Millennium Ecosystem Assessment provided such information at the global scale, but similar efforts to value the contribution of biodiversity are required at the national or local level where policy and production decisions are made. Finally, when public and private actors have incentives to effect policy change and are aware of these incentives, they may not have the capacity to respond adequately to these incentives. In such cases, capacity building is needed.

24. Through this strategic program, GEF will support projects that remove critical knowledge barriers, develop institutional capacities, and establish the policies, and the legislative and regulatory frameworks required to integrate biodiversity conservation objectives into the actions of the production sectors (agriculture, fisheries, forestry, extractive industries-oil and gas, mining, etc.).

Strategic Program 5: Fostering Markets for Biodiversity Goods and Services

Markets for Biodiversity Goods and Services

25. GEF will support programs that demonstrate cost-effective, market-based instruments for biodiversity conservation that complement policy and regulatory measures. The GEF will build on experience gained in GEF-3 and continue to support the design and implementation of Payment for Environmental Service (PES) schemes to compensate resource managers for off-site ecological benefits associated with biodiversity conservation-compatible land-use practices.

This would include support to identify potential opportunities for PES schemes that include private sector actors on the demand side.

Supply Chain Initiatives

26. Voluntary certification systems provide market-based solutions to the undersupply of social and environmental goods and services by enabling consumers to pay producers to deliver them. Environmental certification utilizes the willingness of the market to either pay a premium for goods and services whose production, distribution and consumption meets some kind of minimum environmental standards, or to limit entry to goods and services that do not. This creates market incentives for improved environmental and social practices. Products and services already being certified as environmentally friendly include organic agricultural products, timber, coffee, fish, and ecotourism, through a range of certification systems such as the International Federation of Organic Agriculture Movements (IFOAM), the Forest Stewardship Council, Rainforest Alliance, and the Marine Stewardship Council. It should be noted that certification systems such as “Fair Trade,” while generating socio-economic benefits, do not necessarily generate environmental or biodiversity benefits.

27. GEF will build on project experience with the development of certification systems for biodiversity-friendly coffee and marine aquarium fish and support: a) improvement of existing certification standards and development of new standards to achieve global environmental objectives; b) increasing country capacity to scale up and increase the sustainability of certification systems c) establishment of sustainable training systems for farmers and certifiers; d) development of traceability systems and strengthening of supply chain management linking end products and services to their source; e) strengthening market outreach to enhance private sector and consumer awareness of certified products hence increase demand for higher environmental and social standards; and f) facilitating access to finance for producers, cooperatives and companies working either with or towards certified products and services. GEF will support interventions that remove the barriers to enhancing, scaling up, replicating, and extending the range and diversity of voluntary environmental certification systems in order to reduce negative influences on biodiversity and the ecosystem services it provides, and provide socio-economic benefits to local producers.

C. Strategic Objective 3: To Safeguard Biodiversity

28. In order to safeguard biodiversity, countries require management systems and frameworks that have the capacity to detect, exclude, eradicate, control and effectively manage introduced organisms that pose a risk to biodiversity. Through this strategic objective, GEF will help build country capacity to implement the Cartagena Protocol on Biosafety. In addition, GEF will support the implementation of cost-effective strategies to prevent, control and manage invasive alien species in terrestrial, freshwater and marine systems.

Strategic Program 6: Building Capacity for the Implementation of the Cartagena Protocol on Biosafety⁸

29. GEF's strategy to build capacity to implement the Cartagena Protocol on Biosafety (CPB) takes into account the guidance from the CPB and lessons and experiences emerging from the GEF biosafety portfolio. Priority will be given to activities for the implementation of the CPB that are specified in the COP guidance to the GEF with respect to biosafety, in particular the key elements in the *Updated Action Plan for Building Capacities for the Effective Implementation of the CPB*, agreed at the third Conference of the Parties serving as the Meeting of the Parties to the CPB (COP-MOP-3), and identified in a country's stock-taking analysis.

30. Providing support to eligible countries through regional or sub-regional projects will be pursued when there are opportunities for cost-effective sharing of limited resources and for coordination between biosafety frameworks. Regional and sub-regional approaches will be pursued where stocktaking assessments support the potential for coordinating biosafety frameworks, for interchange of regional expertise, and common priority areas for capacity building.

31. Single-country projects will be implemented when the characteristics of the eligible country, as assessed in the stock-taking analysis, and the design of existing or planned future regional or sub-regional efforts in the area, recommend a national approach for the implementation of the CPB in that country.

32. An issue-specific approach can be an effective way to support groups of countries lacking competences in particular fields and assist them to build their capacities in that field. This multi-country approach will be pursued where stocktaking assessments support the needs of eligible countries and on the basis that this approach would foster the pooling of resources, economies of scale and international coordination.

33. In reviewing project proposals for biosafety projects, the Secretariat will work with the agencies to ensure that there is no duplication of financing for any country that may participate in more than one type of project (regional, sub-regional, national, or issue-specific). GEF will only support project proposals that demonstrate ways in which participating countries will promote the continuation of activities to implement the CPB after the end of the GEF support. In this regard, a set of sustainability indicators and conditions has been developed to reflect project sustainability.

Strategic Program 7: Prevention, Control and Management of Invasive Alien Species

34. The Millennium Ecosystem Assessment identified the spread of invasive alien species as one of the five major direct drivers of change in biodiversity and ecosystems, particularly in

⁸ A *Strategy for Financing Biosafety* (Doc GEF/C.30/8/Rev.1) was approved by GEF Council at its December 2006 meeting as an interim basis for the development of projects for implementation of the CPB until such time as the focal area strategies are approved by the Council. The full list of activities to be supported under this strategic objective can be found in the full strategy document at: http://gefweb.org/Documents/Council_Documents/GEF_30/documents/C.30.8.Rev.1StrategyforFinancingBiosafety.pdf.

island ecosystems. In addition, invasive alien species can markedly decrease outputs in productive systems (agriculture, forestry, fisheries) when alien species become invasive weeds, pests and diseases. There have been few attempts to aggregate the economic costs of invasions globally and those that do exist vary widely (US \$100 billion to US\$ 200 billion per year) due in part to the difficulty in estimating the aggregate cost of invasions. Estimates often neglect the globally important loss of genetic information and the loss of ecosystem services caused by invasive alien species (disturbing the hydrological cycle including flood control and water supply, waste assimilation, recycling of nutrients, conservation and regeneration of soils, pollination of crops, etc.). Failure of these productive ecosystems or reductions in their outputs can force resource-dependent people to fall back on native biodiversity, furthering its decline by overuse.

35. During GEF-4, support will be provided to: a) strengthening the enabling policy and institutional environment for cross-sectoral prevention and management of invasions; b) implementing communication and prevention strategies that emphasize a pathways and ecosystem approach to managing invasions; c) developing and implementing appropriate risk analysis procedures for non-native species importations; d) early detection and rapid response procedures for management of nascent infestations; and e) managing priority alien species invasions in pilot sites to ensure conservation and sustainable use of biodiversity. GEF will support efforts that demonstrate approaches to combat invasive species and their impacts, while providing other societal benefits, such as increasing water yields from catchments, improving rangelands for livestock, increasing yields from forestry, fisheries and agriculture, reducing fire hazards, improving local community economies, and restoring biodiversity and affected landscapes. Regional approaches will be promoted in island states where economies of scale can justify regional interventions.

D. Strategic Objective 4: To Build Capacity on Access and Benefit Sharing

Strategic Program 8: Building Capacity on Access and Benefit Sharing (ABS)

36. The complexities associated with the implementation of the third objective of the CBD -- the fair and equitable sharing of benefits arising out of the utilization of genetic resources, and the lack of capacity of most key stakeholder groups to deal with these complexities, including lack of capacity in most countries to deal with legitimate, but often conflicting, interests of providers and users of genetic resources and the associated traditional knowledge of indigenous and local communities -- have all contributed to slow progress in the implementation of this objective.

37. In recognition of the incipient phase of ABS under the CBD, and before an international regime on ABS is adopted, GEF will support capacity building of governments for meeting their obligations under Article 15 of the CBD, as well as building capacity within key stakeholder groups, including indigenous and local communities and the scientific community. This strategic program would support the establishment of measures that promote concrete access and benefit-sharing agreements that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. Projects in this strategic program should be consistent with the Bonn Guidelines on Access to Genetic

Resources and the Fair and Equitable Sharing of Benefits Arising out of their Utilization and the related action plan on capacity building for ABS adopted under the Convention.

III. GLOBAL AND REGIONAL FUNDS

38. The resources that were earmarked for global and regional projects will be allocated in the following way. First, support will be provided to the two new strategic programs in the sustainable forest management framework strategy (“Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO₂ Emissions” and “Promoting Sustainable Energy Production from Biomass”) particularly for those aspects of these programs that have a high global demonstration value and replication potential. Support will also be provided for an assessment of the progress towards achieving the 2010 Biodiversity Target.

39. The remaining resources will be used to support two projects, each of which meet the following criteria: a) high degree of relevance to GEF’s biodiversity strategic objectives and strategic programs; b) level of priority given to the project theme by the COP of the CBD; c) high likelihood that the project will have a broad and positive impact in biodiversity with a high potential for replication; and d) high global demonstration value.

40. The first project, the *Global Island Partnership*, will assist with the implementation of two strategic programs that address high priority issues in island states: “Increasing Representation of Effectively Managed Marine Protected Areas in Protected Area Systems” and “Prevention, Control and Management of Invasive Alien Species”. When possible, GEF resources will be used strategically to help leverage existing investments (e.g., the Micronesia Challenge) and to help catalyze similar challenge programs where they do not yet exist. These funds will complement national RAF allocations that are committed to these two programs when economies of scale can be achieved and where conservation problems are more effectively addressed through regional intervention approaches.

41. The second project, *Mainstreaming Biodiversity in Extractive Industries*, will complement both strategic programs funded under strategic objective two: “Strengthening the Policy & Regulatory Framework for Mainstreaming Biodiversity” and “Fostering Markets for Biodiversity Goods and Services.” National-level projects that are mainstreaming the conservation and sustainable use of biodiversity into extractive industries (oil and gas, mining, etc.) to achieve a net positive impact on biodiversity will benefit from a complementary investment that supports the sharing of experiences and identification of best practice at the global level. Bringing together national and multi-national private sector actors to codify operational practices across an industry that are beneficial to biodiversity will substantially increase the demonstration value and replication potential of national-level projects, thus leveraging greater global impact and commitment to mainstreaming.

IV. BIODIVERSITY STRATEGIC OBJECTIVES AND STRATEGIC PROGRAMS: IMPACTS, OUTCOMES AND INDICATORS

42. The long-term impact of the GEF biodiversity program will be measured by GEF's contribution to a significant reduction of the current rate of globally-significant biodiversity loss in GEF-supported countries as per country reporting to the CBD on the 2010 target. The biodiversity program's outcome and impact indicators are presented in the tables below and are mapped to the indicators of the 2010 target as shown in Attachment 1.

Table 2. Strategic Objectives of GEF Biodiversity Program

Strategic Objective	Expected Long-Term Impacts	Indicators
SO-1: To Catalyze Sustainability of Protected Area Systems	Biodiversity conserved and sustainably used in protected area systems	<ul style="list-style-type: none"> • Extent of habitat cover (hectares) by biome type maintained as measured by cover and fragmentation in protected area systems • Extent and percentage increase of new habitat protected (hectares) by biome type in protected area systems that enhances ecosystem representation • Protected area management effectiveness as measured by protected area scorecards that assess site management, financial sustainability and capacity⁹
SO-2: To Mainstream Biodiversity Conservation in Production Landscapes/ Seascapes and Sectors	Conservation and sustainable use of biodiversity incorporated in the productive landscape and seascape	<ul style="list-style-type: none"> • Number of hectares in production landscapes under sustainable management but not yet certified • Number of Hectares/production systems under certified production practices that meet sustainability and biodiversity standards • Extent (coverage: hectares, payments generated) of payment for environmental service schemes
SO-3: To Safeguard Biodiversity	<p>Potential risks posed to biodiversity from living modified organisms are avoided or mitigated</p> <p>Potential risks posed to biodiversity from invasive alien species are avoided or mitigated</p>	<p><u>Biosafety:</u></p> <ul style="list-style-type: none"> • Each request for intentional transboundary movement or domestic use is processed through a regulatory and administrative framework aligned with the CPB • For each request for intentional transboundary movement or domestic use risk assessments carried out in accordance with the CPB and mechanisms • For each request for intentional transboundary movement or domestic use, measures and strategies to manage risks established <p><u>Invasive Alien Species:</u></p> <ul style="list-style-type: none"> • Number of point-of-entry detections • Number of early eradications • Number of successful prevention & control programs
SO-4 To Build Capacity on Access and Benefit Sharing	Improved social well-being and biodiversity sustainably used	<ul style="list-style-type: none"> • Amount of monetary and non-monetary benefits flowing to legitimate owners of genetic resources generated through CBD-compliant ABS agreements • Conservation status of genetic resources being exchanged as part of CBD-compliant ABS agreements

⁹ The GEF uses a tracking tool to assess protected area management effectiveness at site level that is based on the IUCN World Commission on Protected Areas framework for management effectiveness. In GEF-4, the GEF will pilot the application of tools to assess two other key aspects of protected area system effectiveness (financial sustainability and capacity). Since GEF-3, GEF tracking tools are submitted for all GEF biodiversity projects at project inclusion into the work program or by CEO endorsement, mid-term evaluation and final evaluation at project closure. The tracking tools can be found at http://gefweb.org/projects/Focal_Areas/bio/bio_tracking_tools.html.

Table 3. Strategic Programs for GEF-4

Strategic Programs for GEF-4 and Estimated Resources	Expected Outcomes	Indicators
1. Sustainable Financing of PA Systems at the National Level	<ul style="list-style-type: none"> • Protected area systems secure increased revenue and diversification of revenue streams to meet total expenditures required to meet management objectives • Reduction in financing gap to meet protected area management objectives 	<ul style="list-style-type: none"> • Total revenue and diversification in revenue streams
2. Increasing Representation of Effectively Managed Marine PA Areas in PA Systems	<ul style="list-style-type: none"> • Increased coverage of marine ecosystems globally and in national protected area systems • Improved management of marine protected areas 	<ul style="list-style-type: none"> • Number and extent (coverage) of national marine protected areas compared to 2006 global baseline for GEF eligible countries • Protected area management effectiveness as measured by individual protected area scorecards
3. Strengthening Terrestrial PA Networks	<ul style="list-style-type: none"> • Improved ecosystem coverage of under-represented terrestrial ecosystems areas as part of national protected area systems • Improved management of terrestrial protected areas 	<ul style="list-style-type: none"> • Terrestrial ecosystem coverage in national protected area systems • Protected area management effectiveness as measured by individual protected area scorecards
4. Strengthening the Policy & Regulatory Framework for Mainstreaming Biodiversity	<ul style="list-style-type: none"> • Policy and regulatory frameworks governing sectors outside the environment sector incorporate measures to conserve biodiversity 	<ul style="list-style-type: none"> • The degree to which policies and regulations governing sectoral activities include measures to conserve and sustainably use biodiversity as measured through GEF tracking tool
5. Fostering Markets for Biodiversity Goods and Services	<ul style="list-style-type: none"> • Markets created for environmental services • Global certification systems for goods produced in agriculture, fisheries, forestry, and other sectors include technically rigorous biodiversity standards 	<ul style="list-style-type: none"> • Number and extent (coverage: hectares, payments generated) of new payment for environmental service schemes created • Published certification systems that include technically rigorous biodiversity standards

Strategic Programs for GEF-4 and Estimated Resources	Expected Outcomes	Indicators
6. Building Capacity for the Implementation of the Cartagena Protocol on Biosafety	<ul style="list-style-type: none"> • Operational national biosafety decision-making systems that contribute to the safe use of biotechnology in conformity with the provisions and decisions of the Cartagena Protocol on Biosafety 	<ul style="list-style-type: none"> • Percentage of participating countries with regulatory and policy framework in place • Percentage of participating countries that have established a National Coordination Mechanism • Percentage of participating countries with administrative frameworks in place • Percentage of participating countries with risk assessment and risk management strategies for the safe transfer, handling and use of LMOs, specifically focused on transboundary movements • Percentage of participating countries that have carried out risk assessments • Percentage of participating countries that fully participate and share information on the BCH
7. Prevention, Control and Management of Invasive Alien Species	<ul style="list-style-type: none"> • Operational invasive alien species (IAS) management frameworks that mitigate impact of invasive alien species on biodiversity and ecosystem services 	<ul style="list-style-type: none"> • National coordination mechanisms to assist with the design and implementation of national strategies for invasive alien species • National strategies that inform policies, legislation, regulations and management • Regulatory and policy frameworks for invasive alien species in place • Point of detection mechanisms in place • Incorporation of environmental considerations with regards to invasive alien species into existing risk assessment procedures • Identification and management of priority pathways for invasions
8. Building Capacity on Access and Benefit Sharing	<ul style="list-style-type: none"> • Access to genetic resources within supported projects is in line with the Convention on Biological Diversity and its relevant provisions • Benefits arising from the commercial and other utilization of genetic resources shared in a fair and equitable way with the countries providing such resources in line with the Convention on Biological Diversity and its relevant provisions 	<ul style="list-style-type: none"> • Number of mutually agreed terms on access and benefit sharing undertaken (biodiversity contracts, material transfer agreements, etc.)

**ANNEX 1 ATTACHMENT 1: LINKAGE OF GEF BIODIVERSITY PROGRAM OUTCOME INDICATORS
TO THE CBD 2010 TARGETS**

Goals and targets as per the framework for evaluation progress towards the 2101 target (decision VIII/15, annex II)	Link to GEF SO¹⁰	Indicator being applied by GEF
Protect the components of biodiversity		
<i>Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes</i>		
Target 1.1: At least 10% of each of the world's ecological regions effectively conserved	1	<ul style="list-style-type: none"> • Coverage in hectares of protected areas supported (terrestrial, marine, freshwater) • Management effectiveness of protected areas
Target 1.2: Areas of particular importance to biodiversity protected	1	<ul style="list-style-type: none"> • Coverage in hectares of protected areas supported (terrestrial, marine, freshwater) • Management effectiveness of protected areas • Coverage in hectares of ecosystems of global importance
<i>Goal 2. Promote the conservation of species diversity</i>		
Target 2.1: Reduce the decline of, restore, or maintain populations of species of selected taxonomic groups	1	<ul style="list-style-type: none"> • Management effectiveness of protected areas
Target 2.2: Status of threatened species improved	1	<ul style="list-style-type: none"> • Number of endangered or critically endangered species brought under protection as part of a protected area system and the management effectiveness of these areas
<i>Goal 3. Promote the conservation of genetic diversity</i>		
Target 3.1: Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained	1, 2	<ul style="list-style-type: none"> • Management effectiveness of protected areas • Number of landraces and wild relatives of economically valuable species brought under protection as part of a protected area and the management effectiveness of these areas • Improved production practices in agriculture, fisheries, and forestry and extent of production systems that are certified

¹⁰ Strategic Objective One: Catalyzing Sustainability of Protected Area Systems; Strategic Objective Two: Mainstreaming Biodiversity in Production Landscapes/Seascapes and Sectors; Strategic Objective Three: Safeguarding Biodiversity, Strategic Objective Four: Capacity Building on Access and Benefit Sharing

Goals and targets as per the framework for evaluation progress towards the 2101 target (decision VIII/15, annex II)	Link to GEF SO ¹⁰	Indicator being applied by GEF
Promote sustainable use		
<i>Goal 4. Promote sustainable use and consumption</i>		
Target 4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity	2	<ul style="list-style-type: none"> • Coverage in hectares of production systems that contribute to biodiversity conservation or the sustainable use of its components • Coverage in hectares of production systems under certification • Integration of biodiversity considerations into global agriculture and livestock production, fisheries and forest certification systems • X (Y %) projects in each sector that have supported the incorporation of biodiversity aspects into sector policies, legislation, policies and plans at national and sub-national levels • X (Y%) projects supported in each sector that have supported the development of regulations to enforce the legislation • X (Y%) projects supported in each sector that have supported the implementation of regulations • X (Y%) projects supported in each sector that have supported the enforcement of regulations • X (Y%) projects supported in each sector that have supported the monitoring of enforcement
Target 4.2: Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced	-	Integration of technically rigorous biodiversity standards into global certification systems for goods produced in agriculture, fisheries, and forestry
Target 4.3: No species of wild flora or fauna endangered by international trade	-	-
Address threats to biodiversity		
<i>Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.</i>		
Target 5.1: Rate of loss and degradation of natural habitats decreased	1, 2	<ul style="list-style-type: none"> • Management effectiveness of protected areas • Coverage in hectares of sustainable use and management of biodiversity including area under certification
<i>Goal 6. Control threats from invasive alien species</i>		
Target 6.1: Pathways for major potential alien invasive species controlled	3	<ul style="list-style-type: none"> • Project specific; cumulative contributions depending on project intervention
Target 6.2: Management plans in place for major alien species that threaten ecosystems, habitats or species	1, 3	<ul style="list-style-type: none"> • Management effectiveness of protected areas • Operational frameworks to manage invasive alien species
<i>Goal 7. Address challenges to biodiversity from climate change, and pollution</i>		
Target 7.1: Maintain and enhance resilience of the components of biodiversity to adapt to climate change	1	<ul style="list-style-type: none"> • Management effectiveness of protected areas
Target 7.2: Reduce pollution and its impacts on biodiversity	-	-
Maintain goods and services from biodiversity to support human well-being		

Goals and targets as per the framework for evaluation progress towards the 2101 target (decision VIII/15, annex II)	Link to GEF SO¹⁰	Indicator being applied by GEF
<i>Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods</i>		
Target 8.1: Capacity of ecosystems to deliver goods and services maintained	1, 2	<ul style="list-style-type: none"> • Management effectiveness of protected areas • Number of payment for environmental services schemes supported • Coverage in hectares of sustainable use and management of biodiversity, including area under certification
Target 8.2: Biological resources that support sustainable livelihoods, local food security and health care - especially of poor people - maintained	2	<ul style="list-style-type: none"> • Improved livelihoods (increased incomes) as achieved through targeted project interventions
Protect traditional knowledge, innovations and practices		
<i>Goal 9. Maintain socio-cultural diversity of indigenous and local communities</i>		
Target 9.1: Protect traditional knowledge, innovations and practices	1, 2	<ul style="list-style-type: none"> • Number of projects that contribute to protection of traditional knowledge, innovations and practices
Target 9.2: Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing	1, 2	<ul style="list-style-type: none"> • Number of projects that contribute to recognizing/protecting rights of indigenous and local communities over their traditional knowledge, innovations and practices
Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources		
<i>Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources</i>		
Target 10.1: All access to genetic resources is in line with the Convention on Biological Diversity and its relevant provisions	4	<ul style="list-style-type: none"> • Number of mutually agreed terms on access and benefit sharing undertaken
Target 10.2: Benefits arising from the commercial and other utilization of genetic resources shared in a fair and equitable way with the countries providing such resources. in line with the Convention on Biological Diversity and its relevant provisions	4	<ul style="list-style-type: none"> • Amount of monetary and non-monetary benefits effectively shared with countries providing genetic resources
Ensure provision of adequate resources		
<i>Goal 11: Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention</i>		
Target 11.1: New and additional financial resources are transferred to developing country Parties to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20	1, 2, 3, 4	<ul style="list-style-type: none"> • GEF grant funding plus co-financing and leveraged financing directly attributable to the GEF investment
Target 11.2: Technology is transferred to developing country Parties to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20, paragraph 4	1, 2, 3, 4	<ul style="list-style-type: none"> • GEF grant funding plus co-financing and leveraged financing directly attributable to the GEF investment utilized specifically for technology transfer

ANNEX 2. CLIMATE CHANGE FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

I. BACKGROUND

1. Since its inception in 1991, the Global Environment Facility has allocated over US\$ 2 billion to projects in the climate change focal area. These funds have leveraged another US\$10 billion of funding in support of the climate change activities of the GEF. Three types of interventions—enabling, mitigation, and adaptation activities—have formed the basis for GEF support to the climate change focal area.

2. The GEF's approach has evolved through time. From a Pilot Phase which placed a premium on innovative demonstrations of technically feasible mitigation projects, the GEF's focus has continually shifted upstream toward creating a conducive policy environment, away from individual investments. GEF support is directed not at subsidizing individual investments, but rather at creating the market environment in which the technologies and practices can diffuse into the target markets. In addition, the further deepening of international commitments to climate change has provided a new flow of funds in the form of carbon finance for mitigation projects in developing countries. As this flow tends to target specific investment projects, GEF's barrier removal approach minimizes the potential for duplication of efforts, while laying the foundation for complementarity between GEF resources and carbon-finance backed investments. Because GEF resources are limited, GEF support in the climate change focal area is most effective when it is used to facilitate and complement other sources of financing.

3. Based upon past experience and the strategy that was specified in the GEF-4 Replenishment Paper (GEF/C.29/3), this document presents a revised climate change focal area strategy for the GEF-4 period. A starting point for the revision of the strategy is the agreement that all resources in the climate change focal area will be allocated through the Resource Allocation Framework (RAF). This framework builds upon the ability of countries to deliver global environmental benefits given their country capacity, policies, and practices. The strategy allows a range of responses broad enough to allow all countries to access the support needed to meet their obligations and commitments to the UN Framework Convention on Climate Change (UNFCCC).

II. MISSION

4. In the climate change focal area, the GEF will finance eligible enabling, mitigation, and adaptation activities. With respect to *enabling activities*, arrangements were made to support the second national communications of most eligible countries during the period of GEF-3. Further arrangements are necessary to ensure that adequate and timely support for third and subsequent national communications is made available to countries requiring it. GEF's mission in *mitigation* is to develop and transform the markets for energy and mobility in eligible countries so that over the long term they will be able to grow and operate efficiently toward a less carbon-intensive path. The longer term impact will be a slowing of the accumulation of GHG concentrations in the atmosphere. GEF's mission under *adaptation* is to assist developing countries in piloting how to address the adverse impacts of climate change, including variability,

by supporting projects that identify and implement suitable adaptation measures; build adaptive capacity; and reduce vulnerability and increase ecosystem resilience to the adverse impacts of climate change, including variability.

III. STRATEGIC OBJECTIVES

5. Recent reviews of GEF programming have helped shape the evolution of the climate change strategy. The second Climate Change Program Study (CCPS2) stated that “The GEF Secretariat should take the lead in improving overall strategic coherence by clarifying the overarching goal of market transformation outcomes that contribute to GHG emissions reduction or avoidance, and the manner in which existing Operational Programs and associated strategies contribute to this overall goal” (CCPS2, p 67).

6. In accordance with this recommendation, the GEF has directed its strategic objectives in the climate change focal area to include seven mitigation objectives and the single adaptation objective listed in Table 1 below. These objectives form the basis for GEF’s approach to the climate change focal area and reflect considerable experience with respect to its past programming successes and failures.

7. During the GEF-4 replenishment period, the climate change mitigation target is set at an additional estimated 400 million tons of CO₂ equivalent (CO_{2e}) to be avoided through GEF interventions. It has been estimated that the GEF’s cumulative contribution to GHG emissions reduction from its inception until 2006 comes to 1,200 million tons of CO_{2e} avoided. During the period of GEF-3, the GEF’s support to climate change mitigation projects was estimated to result in over 400 million tons of CO_{2e} avoided, including both direct and indirect effects of GEF projects over their lifetime.¹¹

8. During GEF-4, the overarching goal is to reduce GHG emissions through transforming markets. Because market transformation is a complex, long-term process, even successful projects will almost never completely transform a market, but will instead contribute positively to the transformation process. Given GEF’s role as an innovative catalyst, many of the global benefits of GEF support are expected to be indirect in nature. Additional activities, including follow-on investments, will be required to complete the process of market transformation. Not only must participating governments demonstrate a strong commitment to adopting policies and regulations to ensure the success of the activities being promoted, but also the private sector must be engaged both for advice on establishing pre-conditions for success and for making the necessary investments themselves. Policy gains alone are insufficient to lead to a full transformation of the targeted markets.

9. Stabilizing GHG concentrations in the atmosphere will require reducing GHG emission by improving the efficiency of energy production and utilization, increasing the use of renewable energy which produces no net GHG emissions, and improving the sustainability of mobility. These approaches represent the focus of GEF’s climate change mitigation operations. Although

¹¹ A GEF GHG accounting methodology has been under preparation and should be released shortly, consistent with the recommendations of the CCPS2 and OPS3. It makes clear the use of GHG accounting in GEF proposals.

carbon sequestration and carbon capture and storage will be important longer term mitigation initiatives requiring GEF support, serious issues continue to complicate both of these approaches to long-term stabilization of the climate system. The GEF is anticipating helping to resolve some of these issues in order to be able to support these initiatives in future replenishment periods.

IV. STRATEGIC FOCUS IN GEF-4

Table 1: GEF Strategic Objectives in the Climate Change Focal Area

Strategic Objectives	Expected Direct Impacts	Indicators
Mitigation		
1. To promote energy-efficient technologies and practices in the appliance and building sectors	Improved efficiency of energy use in the built environment	Energy consumption (and GHG emissions) of buildings and appliances; (kWh / m ² and tons CO ₂ eq/ m ²)
2. To promote energy-efficient technologies and practices in industrial production and manufacturing processes	Improved energy efficiency of industrial production	Efficiency of industrial energy use (energy use / \$ GDP); GHG emissions from industry (tons CO ₂ eq/ \$ GDP)
3. To improve the efficiency and performance of existing power plants	Improved energy efficiency of electricity generation from existing power plants	Efficiency of power generation (tons coal/kWh); GHG emissions per unit of electricity generated (tons CO ₂ eq / kWh)
4. To promote on-grid renewable energy	Increased production of renewable energy in electricity grids	Market penetration of on-grid renewable energy (% of total from renewables); GHG emissions from electricity generation (tons CO ₂ eq/ kWh)
5. To promote the use of renewable energy for the provision of rural energy services (off-grid)	Increased production and use of renewable energy in rural areas	Number (or %) of rural households served by renewable energy (# HH or % HH); Renewable generation of electricity for rural energy services (kWh rural renewable)
6. To support new low-GHG emitting energy technologies	Reduced cost of selected low GHG-emitting energy technologies	Cost of selected, low-GHG emitting energy generating technologies (\$/ W installed or \$/kWh generated)
7. To facilitate market transformation for sustainable mobility in urban areas leading to reduced GHG emissions	Increased use of sustainable transport modes	Number or percentage of trips using sustainable modes of transport
Adaptation		
8. To support pilot and demonstration projects for adaptation to climate change	Enhanced resilience and increased capacity to respond to the adverse impacts of climate change	Decreased vulnerability Enhanced resiliency

10. The GEF-4 Replenishment Paper (GEF/C.29/3) specified seven strategic objectives in mitigation and one in adaptation that form the longer-term basis for GEF programming (Table

1). These have been reviewed and reconsidered in terms of the feasibility of achieving significant impact under these objectives given the level of resources available during the period of GEF-4. Climate change mitigation programming will be concentrated in five strategic programs for the period of GEF-4. In arriving at these five strategic programs, each of the objectives was considered with respect to the GEF's unique role, mission, and potential impact.

11. In re-examining the seven mitigation-related strategic objectives for potential impacts during GEF-4, it became very clear that resources are not sufficient to have a noticeable impact with respect to the objective "Rehabilitation of Power Plants." The GEF is committed to working with the World Bank and the other IFI's to make the Clean Energy Investment Framework a reality. Rather than allocating too few resources to such an important problem, thereby making no impact at all, further GEF support to power plant rehabilitation will be delayed until it can be placed effectively within the context of a meaningful clean energy investment framework, which would require a substantial increase in GEF resources. The challenge of clean energy investment for developing countries is essential to stabilizing GHG concentrations, but it will require greater support than the GEF can provide during GEF-4. The GEF will continue to work closely with the World Bank in its program to accelerate the transition to a low carbon economy.

12. With respect to the strategic objective entitled "Off-grid Renewable Energy," the GEF has, since its inception, supported projects in this area, but evaluations of these projects have indicated that these projects have resulted in neither a significant take-off of these markets nor a serious reduction in GHG emissions. Past GEF support has demonstrated that there is a small but growing market for renewable energy in the rural areas of developing countries, but that it should be viewed as part of the energy access agenda, not part of the climate change mitigation agenda. Traditional development assistance is posed to build upon the earlier GEF experience and the lessons learned to begin providing modern energy services to those without. For GEF-4, this strategic objective will not be considered a priority given the level of support available and the renewed importance being placed on reducing overall GHG emissions.

13. In relation to the strategic objective entitled "Low-GHG Emitting Energy Technologies," the GEF has struggled over the years. Only a handful of these projects, utilizing an inordinately large sum of resources, have made it through to implementation. To date, they have shown little or no concrete benefits in reducing the costs of the targeted technologies or even in reducing GHG emissions. The GEF experience tends to support the view that transferring technologies that are not yet mature is difficult as it imposes large additional costs and risks on developing countries and their energy systems. However, the GEF needs to keep abreast of developments related to new, low-GHG emitting energy technologies in order to determine whether or not they reach a point where they merit GEF support. While the GEF will not allocate significant resources to the new technologies during GEF-4, limited support in the form of targeted research may be necessary to keep a watching brief on related developments. New approaches to this programming priority will have to be considered for GEF-5. During GEF-4, clean energy will be pursued as one of the priority platforms for the GEF Public-Private Partnership.

14. From the initial seven mitigation objectives defined for GEF-4, this strategic review has focused on four objectives. In addition to these four programs, a special program on biomass

energy has been defined to include elements from both energy efficiency and renewable energy programming. It was judged to be especially important to make this an explicit program distinct from the others because of the importance of safeguards needed to ensure that biomass being used for modern energy is sustainably produced, and that therefore its use does not undermine GEF's goals in other focal areas.

15. These priorities are consistent with the International Energy Agency's Alternative Policy Scenarios. More emphasis is placed on improving energy efficiency than in the past, as the scenarios project that a large share of GHG emission reductions will have to be derived from improved efficiency of energy use.

V. STRATEGIC PROGRAMMING FOR GEF-4

GEF-4 Support to Enabling Activities

16. Enabling activities will continue to be financed by the GEF, as national communications represent both an obligation of non-Annex I parties under the UNFCCC. Article 4.3 of the UNFCCC specifies that the GEF should pay the agreed full cost of the preparation of national communications. During GEF-3, an umbrella project was approved for UNDP and UNEP to provide expedited support to countries' second national communications. As national communications from non-Annex I Parties are presented on a five-year cycle, this project, approved in 2004, will cover the needs of most countries through the GEF-4 replenishment period. Action will be required to ensure that resources are available to provide sufficient support to countries to complete their third and subsequent national communications.

17. Non-Annex I national communications projects have helped countries undertake inventories of GHG emissions and describe steps to implement the convention. Greater effort is needed to help these national communications develop into strategic documents that identify and implement programs and activities at the national level, both in the fields of mitigation and adaptation. To accomplish this, deeper commitment to climate change will be required at the national level. GEF agencies, the UNFCCC Secretariat, and the GEF Secretariat will need to redouble their cooperative efforts to increase the strategic value of the national communication process, including technology needs assessments (TNA's) and vulnerability and adaptation assessments (V&A).

GEF-4 Support to Mitigation Programming

18. Five strategic programs will form the basis for mitigation programming for the GEF-4 replenishment period. These strategic programs are described below and listed in Table 2.

Strategic Program 1: Promoting Energy Efficiency in Residential and Commercial Buildings

19. This strategic program will promote energy efficiency in residential and commercial buildings. Successful outcomes will include increased market penetration of energy-efficient technologies, practices, products, and materials in the residential and commercial building markets. Indicators of success will be the tons of CO_{2e} avoided, the adoption of energy efficiency standards, and the estimated quantity of energy saved. This strategic program covers the entire spectrum of the building sector, including the building envelope, the energy-consuming systems and appliances used in buildings for heating, cooling, lighting, including appliances and office equipment, as well as building operation and energy consumption during building operation. Some activities may use solar energy for heating and cooling, some may extend to the replacement of older chillers and air-conditioning systems with newer ones, provided that the replacements are both more efficient, lower in global warming potential (GWP) and minimize the use of chemicals damaging to the ozone layer.

20. Where it makes sense to do so in order to reduce GHG emissions and it is consistent with “chemical-proofing” the portfolio, GEF projects in this strategic program can support the phase-out of HCFC’s used in chillers, air-conditioners, refrigerators and other equipment, even before the required phase-out dates under the Montreal Protocol. Government commitments to adopting and enforcing standards and regulations are essential for these initiatives to have an impact through replication. Over the course of the GEF-4 programming period, the focus in this programming areas will naturally shift from appliances, lighting and refrigerators to energy efficiency of the built environment. While this programming area is of relevance to all countries, it will be especially important to rapidly urbanizing countries. Projects will be largely oriented to technical assistance, but some investment will also be required for markets to reach their limits.

Strategic Program 2: Promoting Energy Efficiency in the Industrial Sector

21. This program will promote energy efficiency in the industrial sector, including the deployment and diffusion of energy-efficient technologies and practices in industrial production and manufacturing processes. A successful outcome will be the increased deployment of energy-efficient technologies and adoption of energy-saving practices. Indicators of success will be tons of CO_{2e} avoided, volume of investment in new, more efficient plants and equipment, and the quantity of energy saved. This strategic program covers the energy systems in industrial manufacturing and processing, including combustion, steam, process heat, combined heat and power, electricity generation, and other public utilities. Small and medium enterprises (SME’s) in developing countries demonstrate significant potential for improved efficiency and reduced GHG emissions as they frequently have limited access to the technology and capital necessary for improving their facilities. Adoption of an appropriate energy pricing framework is essential to ensure project effectiveness.

22. This strategic program is expected to evolve into focused, sector-specific technology transfer programs focusing on GHG-intensive industries. The strategic program may be also used to test potential modalities for sector-specific or technology-specific GHG mitigation programs for use in GEF-4 and beyond. Where it makes sense to do so in order to reduce GHG emissions and it is consistent with “chemical-proofing” the GEF portfolio, GEF projects in this strategic program will support the phase-out of HCFC’s used in the food processing industry

before required under the Montreal Protocol. At present, this strategic program is expected to be most relevant for countries with large and growing industrial sectors that account for a significant share of both energy use and GHG emissions. Projects mixing technical assistance and investment support will be the norm.

Strategic Program 3: Promoting Market Approaches for Renewable Energy

23. This strategic program will promote market approaches for the supply of and demand for renewable electricity in grid-based systems. The expected outcome will be the growth in markets for renewable heat power in participating program countries. Indicators of success will be the tons of CO_{2e} avoided, the adoption of on-grid renewable policies, and the quantity of electricity generated from renewable sources. During the GEF-4 period, the emphasis will be upon developing policies and regulatory frameworks that provide limited incremental support to strategically important investments. In order to maximize GHG impacts, priority will be given to projects with a large replication potential. Further priority will be given to supporting utility-scale power production and cogeneration.

24. The renewable energy investments supported should be economically viable in their own right. Host country willingness to adopt favorable policies and to follow through on the initiatives is essential. During GEF-2 and GEF-3, support has been provided to a number of countries to open up electricity regulations to renewable energy generation. For the period of GEF-4, one target may be to ensure that all countries have adopted regulations leveling the playing field for on-grid renewable energy. Countries with significant renewable energy generation potential may make this strategic program a high priority. Projects will include a combination of technical assistance for policy reform and regulation and initial investments to jump-start the market for a specific renewable technology.

Strategic Program 4: Promoting Sustainable Energy Production from Biomass

25. This strategic program will promote sustainable energy production from biomass. A successful outcome will be the adoption of modern and sustainable practices in biomass production, conversion and use as energy. Indicators of success will be tons of CO_{2e} avoided; the adoption of modern biomass conversion technologies, improved efficiency of biomass energy use, kWh of electricity and heat generated from biomass sources, and energy services produced on the basis of biomass. Given the emphasis placed upon sustainable forest management in the remainder of the GEF portfolio, it was considered necessary to create a separate strategic program for biomass in order to highlight its importance and ensure consistency with other focal areas. GEF support will only go to biomass projects that ensure that biomass energy use is sustainable and does not, therefore, contribute to deforestation, reduced soil fertility, or increased GHG emissions beyond project boundaries. Projects will support the use of biomass for the production of energy services (electricity, heat, etc.) in modern efficient technologies. In a small number of cases, support may be given to investigate the suitability and sustainability of producing biofuels to substitute petroleum fuels used. In all instances, safeguards will have to be observed to ensure that GEF support to modernization of biomass does not undermine food security, exacerbate existing availability problems, or violate GEF's

sustainability principles relating to biodiversity conservation or sustainable land and water management, in keeping with the recommendations of STAP.

26. In the past, GEF support to biomass energy has focused largely on the utilization of biomass wastes and residues. During GEF-4, support will be given to modern biomass projects using biomass planted for dedicated energy purposes, provided that all appropriate safeguards are observed. GEF will develop an approach for certifying the sustainability of biomass that will be used for energy under its biomass program. This will be expected to be a priority for countries with plentiful biomass or where biomass waste products go underutilized or where biomass continues to be used in inefficient, traditional wood stoves. Typical projects will provide a mixture of technical assistance, capacity building, and investment. Countries will undertake different projects, depending on their technological advancements in the area of bioenergy conversion, their preexisting infrastructure, and the structure of energy demand. As the conversion of cellulosic biomass to liquid fuels becomes more feasible in technical and economic terms, GEF support to these newer approaches is expected to grow.

Strategic Program 5: Promoting Sustainable Innovative Systems for Urban Transport

27. This strategic program will promote sustainable innovative systems for urban transport. A successful outcome will be a make greater use of less GHG-intensive transport modes in targeted urban areas. Indicators of success will include tons of CO_{2e} avoided; the adoption/creation of sustainable transport policies, and the number of person-trips taken annually on sustainable options. The sustainable mobility market encompasses measures that promote transportation systems of lower carbon intensity - including modal shifts to lower GHG-emitting modes of public transport, public rapid transit (including bus-rapid transit), and non-motorized transport.

28. Initially, GEF support to the transport sector focused on technological solutions. For the period of GEF-4, emphasis will continue to be placed on “non-technology” options, such as planning, modal shift to low-GHG intensive transport modes, and promotion of better managed public transit systems. This strategic program will be a priority for countries with rapidly growing small and medium-sized cities. Although greater emissions reductions are liable to result from countries with larger total GHG emissions, smaller countries may also find this to be a priority for the potential co-benefits of development and environment. Repeater projects in cities and countries already having received support in the transport sector will not be encouraged as government commitment to further replication of successful activities is key to success. Projects will include a mixture of technical assistance and limited investment support.

Table 2: Proposed Strategic Programs for GEF-4 Financing for Mitigation under the Climate Change Focal Area

Strategic Program	Expected Direct Outcome (targets)	Indicators
1. Promoting energy efficiency in residential and commercial buildings	Increased market penetration of energy-efficient technologies, practices, products, and materials in the residential and commercial building markets	<ul style="list-style-type: none"> • Outcome Indicator: tons CO_{2eq} avoided • Policy Outcome Indicator: adoption of standards and codes • Outcome Indicator: KWh or TOE of energy saved in new construction and renovation per sq meter
2. Promoting energy efficiency in the industrial sector	Increased deployment of energy-efficient technologies and adoption of energy-saving practices in the industrial sector	<ul style="list-style-type: none"> • Outcome Indicator: tons CO_{2eq} avoided • Policy Outcome Indicator: policy and regulatory framework adopted • Outcome Indicator: volume of energy efficient investments (\$) • Outcome Indicator: KWh or TOE saved from adoption of new EE technologies
3. Promoting market approaches for renewable energy	Growth in markets for renewable power in participating program countries	<ul style="list-style-type: none"> • Outcome Indicator: tons CO_{2eq} avoided • Policy Outcome Indicator: adoption of policy frameworks, allowing renewable generators equitable access to the grid • Outcome Indicator: kWh generated from renewable sources
4. Promoting sustainable energy production from biomass	Adoption of modern and sustainable practices in biomass production, conversion and use for modern energy	<ul style="list-style-type: none"> • Outcome Indicator: tons CO_{2eq} avoided • Outcome Indicator: MW installed • Outcome Indicator: kWh or W steam generated from sustainable biomass
5. Promoting sustainable innovative systems for urban transport	Innovative sustainable transport systems promoted, created, and adopted. Population in targeted urban areas make greater use of less GHG-intensive transport modes	<ul style="list-style-type: none"> • Outcome Indicator: tons CO_{2eq} avoided • Policy Outcome Indicator: number of sustainable transport policies adopted • Outcome Indicator: person-trips per year on sustainable mode

GEF-4 Support to Adaptation Programming

29. The GEF will demonstrate its impact on adaptation through decreased vulnerability and increased capacity to adapt to the adverse impacts of climate change among its program countries. The indicator for this impact will be based upon demonstration of increased resilience to climate change in GEF program countries. For the GEF-4 replenishment period, the overall goal in adaptation is to expand the range of experiences with adaptation in order to improve global understanding of the challenges brought on by climate change, including variability.

30. During GEF-4, the GEF will develop screening tools so that all future projects supported by the GEF will mitigate the risks associated with future climate change. In this regard, all GEF-supported projects will be made climate-resilient. Throughout GEF-4 all projects presented for CEO endorsement will be required to consider the impacts of climate change on their results and to modify their design to be more resilient to climate change. All projects are expected to

combine technical assistance and capacity building with concrete actions. A premium will be placed on project-based learning opportunities and ensuring balanced coverage of regions and sectors.

31. During the period of GEF-4, the resources initially available for the Strategic Pilot on Adaptation (SPA) will be the remainder of the \$50 million initially allocated by the GEF Council in May, 2004. The scope of programming was defined in the GEF programming paper for the Strategic Pilot on Adaptation (GEF/C.23/Inf.8/Rev.1). Project activities will focus on ensuring the resilience of GEF activities to the adverse impacts of climate change in the focal area which delivers global environmental benefits. In biodiversity, priority is given to coral reefs, forests and protected areas found in highly vulnerable ecosystems. In climate change, the priority is on the implications for future energy generation and use, and GHG emissions due to changes in hydrological resources, or terrestrial environments. In international waters, priority is placed upon integrated coastal zone management (ICZM) in the context of sea-level rise. In the land degradation focal area, the priority is given to integrating climate change risk management into sustainable land management planning, especially focusing upon the needs in Africa. In POPs, the priority will be given to building adaptive capacity to climate change in areas where plans for reduction and elimination of releases of POPs are ongoing.

32. Once these remaining funds (approximately US\$23 million) are allocated, an evaluation will be undertaken to draw initial lessons from adaptation funding for the GEF, to evaluate the potential for mainstreaming adaptation into GEF's focal areas and to recommend, if appropriate, allocating more resources from the GEF Trust Fund to adaptation, consistent with UNFCCC guidance (decisions 5/CP.7 and 1/CP.10) to the GEF on adaptation. In addition, an adaptation impact assessment methodology is being developed for application to all projects supported by GEF. With respect to the mainstreaming of adaptation, an adaptation screening tool will be developed for application to all GEF-4 projects across all focal areas. It will focus on the risks posed by the adverse impacts of climate change on project design, and identify where changes need to be made. Its development will incorporate inputs from STAP and the experience from other bilateral and multilateral agencies in the screening of adaptation projects.

33. The independent evaluation of the SPA will inform future decisions on the allocation of additional resources for adaptation under the GEF Trust Fund. Future GEF Council decisions will also have to take into account the guidance from the UNFCCC COP which has requested that more resources be made available under the GEF Trust Fund for concrete adaptation activities (decision 5/CP.7).

34. Beyond the GEF Trust Fund, the GEF is providing support to adaptation through new funds: the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF). Nevertheless, the question remains whether the GEF should continue to provide support to adaptation projects from the GEF Trust Fund. Are there mega-risks or risks to global environmental system that will not be addressed unless the GEF provides support? Such risks might include disruption to the global carbon system as a whole, melting of polar ice caps or tropical mountain glaciers, or disruption to the oceanic currents of particular interest to GEF program countries. If such mega-risks are identified, responding to those risks using resources

from the GEF Trust Fund would be consistent with GEF's mandate to provide incremental cost funding for projects with global environmental benefits.

VI. INTER-LINKAGES WITH OTHER FOCAL AREAS

35. The GEF is proposing a framework strategy for sustainable forest management (SFM) that will draw from the biodiversity, land degradation and climate change focal areas. The Climate Change focal area will support SFM from its global and regional exclusion. Land-use changes in developing countries constitute a significant share of global GHG emissions. To this end, it is essential that the GEF consider how carbon sequestration might form the basis for future GEF programming while avoiding the unsuccessful experiences from similar past programming under GEF Operational Program 12. In this context, two topics merit discussion. First, the climate change strategic program on modernized biomass will have to develop and utilize tools to certify that the biomass supplies being used for the production of modern energy are, in fact, sustainable. They should not pose a threat to biodiversity and should be produced on formerly degraded land that is sustainably managed. Resources will need to be devoted to the development of certification standards for the sustainability of biomass. Second, for the climate change focal area, reporting on carbon being sequestered from the atmosphere from projects in biodiversity, land degradation, and climate change itself will become increasingly important. Investment in the measurement of biological carbon sequestration from the resources of the climate change focal area will be a necessary preliminary step to be able to effectively report on carbon sequestered by activities in the natural resource management focal areas and to lay the foundation for a future successful program focusing on land use, land-use changes and forestry (LULUCF). The payment for environmental services (PES) concept utilized under the biodiversity focal area has only been applied widely to the service of water. Carbon sequestration provides an important environmental service as well. The GEF may be able to experiment with payment for the carbon-based environmental services that are attributable to avoided deforestation.

36. During the period of GEF-4, the GEF Secretariat will engage in the process of "chemical-proofing" its portfolio, to ensure consistency across the focal areas with the objectives in the chemicals focal area. This approach may be relevant to the climate change focal area in the strategic objective relating to energy efficiency in industry. As new industrial processes are introduced, improving the efficiency of combustion processes will, in most cases, reduce the emissions of dioxins and furans, the unintentional POPs. When appropriate and cost-effective, GEF support will be directed to options that reduce the use of harmful chemicals.

37. Finally, climate change will have adverse impacts in all parts of the globe, including the global commons. As noted earlier, the GEF Council set aside a sum of \$50m from the climate change focal area during GEF-3 to begin experimenting with the implementation of concrete adaptation projects. In addition, to further safeguard the GEF portfolio from the adverse impacts of climate change, the GEF Secretariat will develop an adaptation screening tool that can be applied to the projects that it supports in all focal areas. This tool will help determine which of the proposed activities to achieve global environmental benefits are at risk from the anticipated adverse impacts of climate change, and therefore need to be modified or redesigned to ensure their sustainability.

VII. THE STRATEGIC EVOLUTION OF THE GEF'S CLIMATE CHANGE PROGRAMMING

38. The GEF must continue to evolve its strategy in order to respond to changing conditions and to meet new challenges. Beyond the framework of GEF-4 and its end-point of 2010, to stabilize GHG concentrations in the atmosphere over the next century will require that GHG emissions be stabilized by 2025 or latest by 2050. Such stabilization will require concerted action on the part of the entire global community—both developed and developing countries. As the global community faces this enormous challenge, the GEF has an important role to play in its role as financial mechanism of the UNFCCC. How this role will evolve and change will depend not just upon international negotiations, but also on the state of technological development and advancement.

39. This document has focused on the strategic programming priorities for GEF-4. In looking ahead, the GEF must maintain a watching brief as to what happens in the markets for technologies of greatest relevance. As new technologies are developed, the GEF must continue to clarify whether it has a role in helping open, develop, and transform the markets for these new “beyond the horizon” low-GHG technologies. Whether that technology is entirely renewable, such as concentrating solar or geothermal power, or is a clean fossil-fuel option, such as integrated gasification combined-cycle (IGCC) technologies, or deals with long-term emission storage, such as geological carbon capture and storage (CCS), there is a need for the GEF to keep abreast of these developments and to revise its strategy and reformulate its strategic programming in response to these changes. GEF may use the tool of targeted research in order to maintain an awareness of new developments of relevance to the GEF and to continue revising and reformulating GEF's strategic programming in response to new challenges and opportunities.

ANNEX 3. LAND DEGRADATION FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

I. BACKGROUND

1. Land degradation damages ecosystem functions and services, thereby risking livelihoods, economies and societies; it is a global environment and development issue.¹² The purpose of the land degradation focal area is to foster system-wide change to control the increasing severity and extent of land degradation in order to derive global environmental benefits. Its tool is sustainable land management (SLM)¹³. Investing in SLM to control and prevent land degradation in the wider landscape is an essential and cost-effective way to deliver other global environmental benefits, such as maintenance of biodiversity, mitigation of climate change and protection of international waters.¹⁴

2. For the fourth replenishment of the GEF, US\$300 million has been allocated to the focal area. These resources cannot meet the costs of prevention, control and reversal of land degradation in all affected areas. The strategy, therefore, is to allocate the available resources in the most cost-effective way: to prevention and control of land degradation as recommended by the Millennium Ecosystem Assessment.¹⁵ It will not focus on rehabilitation of already-degraded land or on the development of control technologies. The landscape approach, which embraces ecosystem principles, will be used to address processes that provide people with ecosystem goods and services at the local to global scales of operation. Priority will be given to areas a) severely affected by land degradation but which have potential for the creation of an enabling environment for SLM, and b) showing promising improvements that can be spread to neighbouring areas and other communities.

3. The strategy accords with the Millennium Development Goals¹⁶, especially poverty reduction and environmental sustainability, and with the UN Convention to Combat Desertification¹⁷ and the UN Forum on Forests.¹⁸

¹² See 'The Global Impact of Land Degradation', a study commissioned by the Scientific and Technical Advisory Panel of the GEF.

¹³ Sustainable land management (SLM) is defined as the use of land resources (soils, forests, rangelands, water, animals and plants) for the production of goods to meet human needs while assuring the long-term productive potential. SLM is the foundation of sustainable agriculture and land use, and a strategic component of sustainable development and poverty alleviation. It addresses the often conflicting objectives of intensified economic and social development, while maintaining and enhancing ecological and global life support functions of land resources. Practicing SLM principles is one of the few options for land users to increase income without destroying the quality of the land as a basis of production. (Source: adapted from World Bank *Guidelines for Impact Monitoring* - [http://wbln0018.worldbank.org/essd/susint.nsf/Image+Catalog/slm.pdf/\\$File/slm.pdf](http://wbln0018.worldbank.org/essd/susint.nsf/Image+Catalog/slm.pdf/$File/slm.pdf)).

¹⁴ See 'Land Degradation as a Global Environmental Issue: A Synthesis of Three Studies Commissioned by the Global Environment Facility to Strengthen the Knowledge Base to Support the Land Degradation Focal Area', Scientific and Technical Advisory Panel of the GEF, 15 November 2006. GEF Council GEF/C.30/Inf8

¹⁵ See 'Ecosystems and Human Well-being: Synthesis', Millennium Ecosystem Assessment, 2005 - <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>

¹⁶ <http://www.un.org/millenniumgoals>

¹⁷ The Convention seeks "long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources,

II. FOCAL AREA GOAL

4. The goal of the land degradation focal area (desertification and deforestation) is to arrest and reverse current trends in land degradation. This will be accomplished through policies and practices conducive to SLM that, simultaneously, generate global environmental benefits while supporting local and national, and social and economic development. Actions will contribute to national programs in the field of natural resources management, including sustainable forest management¹⁹, adaptation to climate change and integrated chemicals management that cut across disciplines and sectors to bring mutual benefits to the global environment and local livelihoods. This will ensure sustainability, replicability and harmony with national development goals.

III. STRATEGIC OBJECTIVES

5. The two strategic objectives of the land degradation focal area seek to build a policy and institutional environment conducive to prevention and control of land degradation and effective actions on the ground. Objective-level indicators identify the expected fundamental impacts and benefits intended.

leading to improved living conditions, in particular at the community level.” Article 2, Objective 2 of the UNCCD - <http://www.unccd.int/convention/text/convention.php?annexNo=-1>

¹⁸ The Forum on Forests has six principal functions, including the strengthening of “political commitment to the management, conservation and sustainable development of all types of forests.” <http://www.un.org/esa/forests/about.html>.

¹⁹ Sustainable Forest Management (SFM) investments are included here under SLM – see <http://www.fao.org/forestry/site/sfm/en/> for the main themes included under SFM.

Table 1: Land Degradation Focal Area Strategic Objectives

Strategic Objectives	Expected Impact	Impact Indicators ²⁰	Sources of Verification
Strategic Objective 1: An enabling environment will place SLM in the mainstream of development policy and practice at regional, national and local levels	Overall decrease in trend and/or severity of land degradation	% Increase in Net Primary Productivity (NPP) ²¹ and Rain-use Efficiency (RUE)	GLADA ²² and LUCC ²³ mapping; CRIC reports; national GHG inventories
	Protected ecosystem functions and processes, including carbon stocks in the soil, plants and biota, and fresh water	% Increase in carbon stocks (soil and plant biomass) and/or % availability of fresh water	Carbon facilities; remote sensing (NDVI)
Strategic Objective 2: To upscale SLM investments that generate mutual benefits for the global environment and local livelihoods	A decrease in the vulnerability of local populations to the impacts of climate change	% decrease in mortality rates consequent upon crop failures and livestock deaths	National surveys and statistics
	Improved livelihoods of rural (usually resource-poor) land users	% decrease in number of rural households below the poverty line	National economic statistics; development reports
	Diversified funding sources for SLM	% increase in diversity of funding sources (e.g. private sector, CDM)	National economic statistics; development reports

IV. STRATEGIC FOCUS IN GEF-4

6. In GEF-3, interventions in the land degradation focal area focused on targeted capacity development and the implementation of innovative and indigenous sustainable land management practices. These priorities resulted in a diverse portfolio of proposals experimenting, for example with programmatic partnership approaches or market-based financing mechanisms (e.g. payment for environmental services). Apart from their technical soundness, proposals were evaluated against their fit with the priorities outlined in national, regional, and sub-regional action plans when appropriate. An analysis of the GEF-3 portfolio resulted in the recommendation for GEF-4 to narrow the scope of interventions, in particular using the results of the Millennium Ecosystem Assessment and the Desertification Synthesis.

7. The GEF-4 priority areas will address the three major direct drivers for terrestrial ecosystem degradation identified by the Millennium Ecosystem Assessment: land use change,

²⁰ The listed indicators will be further developed during the implementation of the MSP “Ensuring Impacts from SLM - Development of a Global Indicator System”.

²¹ Net primary productivity (NPP) is chosen as a proxy for ecosystem function. It directly reflects productivity improvements from SLM investments and its baseline is well established by 30 years of compatible measurements by satellite remote sensing.

²² Global Land Degradation Assessment for Drylands; part of the GEF-funded, FAO-UNEP LADA project - <http://lada.virtualcentre.org/pagedisplay/display.asp>.

²³ Land Use and Land Cover Change project - <http://www.geo.ucl.ac.be/LUCC/lucc.html>.

natural resources consumption and climate change. All project proposals will incorporate the effect of climate change as an integral part of measures for sustainable land management.

A. Strategic Objective 1: To Develop an Enabling Environment That Will Place Sustainable Land Management in the Mainstream of Development Policy and Practices at Regional, National and Local Levels

8. Natural resource management issues involving land use are currently dealt with piecemeal; sectoral policies and regulatory frameworks are not harmonised, so there is no clarity in over-arching goals and no secure financing for SLM. Land degradation is widespread and severe in countries where environmental issues are not in the mainstream of development policy and practice, and which lack sufficient institutional capacity; issues of poverty and disease affecting well-being are not only the result of human-induced land degradation, they are also the drivers for further degradation. Policy reform is a priority.

9. This strategic objective addresses the enabling environment for landscape approaches that include ecosystem principles to the management of natural resources, and seeks to build institutional capacity for integrated management in the wider landscape - both are prerequisites for effective interventions to prevent and control land degradation.

10. The scope of the strategic objective is to promote policy reform and build SLM competence and capacity in countries where the drivers of land degradation are potent and the people most affected are poor and vulnerable.

11. Expected outcomes include:

- (a) SLM is fully supported by policy, regulatory and planning frameworks and incentives (e.g. institutional policies and programs; land tenure and water rights);
- (b) institutions have the capacity to support SLM at local, sub-national and national levels. Regional and trans-boundary institutions have the capacity to address and promote the management of joint resources (e.g. training, educational, monitoring and research capacities enhanced and extended to encompass ecosystem and other integrated approaches); and
- (c) access to sustainable financing for SLM (e.g. viable financing plans through national sector budgets, payments for environmental services, and access to small credit schemes).

12. Countries are prioritized according to needs identified through analysis of the drivers and impacts of land degradation, such as existing kinds and patterns of degradation, land use, poverty and well-being, and vulnerability to climate change (see map annex for geographical setting of key indicators). A pre-condition is the existence of institutions with national and regional mandates in land resources management, including provision of services such as training and

research. GEF investment seeks to enable these institutions to fulfil their mandates by placing SLM and SFM in the main stream of public policy and by capacity building.

B. Strategic Objective 2: To Upscale Sustainable Land Management Investments that Generate Mutual Benefits for the Global Environment and Local Livelihoods

13. This Strategic Objective prioritises those areas where investment in SLM will be most cost-effective in terms of mutual benefits for the global environment and local livelihoods. The most cost-effective investment is in replicating of proven initiatives that are ready to be taken up widely; tangible benefits to local livelihoods will ensure that the initiatives are sustainable. This is in accord with guidance from the relevant convention²⁴ and current scientific understanding of benefits achievable through integrated approaches. Synergies with other focal area objectives are also encouraged, including: adaptation to climate change, biodiversity conservation in production landscapes, and reductions in pollution and sedimentation of international water bodies.

14. The scope encompasses actions of mutual benefit to the global environment and local people - through adoption of best practices for the control and prevention of land degradation, and the measurable improvement in the delivery of ecosystem goods and services.

15. Expected outcomes include:

- (a) Systematic large-scale application and dissemination of sustainable, community-based farming and forest management systems;
- (b) communities benefit from applying and disseminating SLM practices; and
- (c) sustainable financing for integrated approaches to SLM achieved.

16. An enabling environment for SLM at the local and/or national level is a prerequisite. Key institutions and policies should be in place, or in hand, to handle integrated approaches to land resources management. Also, positive results of past or ongoing demonstrations and pilot testing of sustainable community-based agriculture, grazing and/or forestry management systems should be presented.

V. PRIORITY TOPICS AND AGRO-ECOLOGICAL ZONES IN THE FOCAL AREA

17. GEF investment in the focal area will comprise: a) projects and programs aimed at critical agro-ecological zones and, b) innovative approaches to SLM that will inform the GEF about priorities beyond GEF-4. The indicative list of kinds of interventions emphasises links between focal areas that will deliver global environmental benefits in the context of sustainable development.

²⁴ UNCCD Bonn Declaration: this emphasises the role of projects combating land degradation as “important instruments to promote sustainable development with a clear focus on the reduction of poverty and on the long-term protection of ecosystems in affected countries” - [http://www.unccd.int/cop/officialdocs/cop4/pdf/3add9\(b\)eng.pdf](http://www.unccd.int/cop/officialdocs/cop4/pdf/3add9(b)eng.pdf)

18. High-priority agro-ecological zones include:

- (a) *Arid to semi-arid*: cropland and rangeland issues, mixed land-uses, rainwater harvesting, small-scale irrigation, pastoral systems, traditional and local knowledge (cross-cuts with sustainable use and protection of dryland biodiversity, sustainable use of groundwater waters, and vulnerability to climate change and variability);
- (b) *Semi-arid, dry sub-humid to temperate*: mixed forest, rangeland and cropping - including subsistence agriculture, use of wood and non-wood resources, interactions with wildlife (cross-cuts with sustainable use and protection of biodiversity, sustainable forest management and vulnerability to climate change and variability);
- (c) *Mountains and upland watersheds*: including natural resources management to protect water sources and habitats, mountain communities (cross-cuts with protection of international water bodies, sustainable use and protection of biodiversity, sustainable forest management, and vulnerability to climate change and variability);
- (d) *Humid forest margins*: the forest/woodland mosaic in the wider landscape including crop and livestock production, protection of forest-margin biodiversity, management of highly-weathered acid soils and peat (cross-cuts with sustainable use and protection of biodiversity, sustainable forest management, and vulnerability to climate change and variability); and
- (e) *Sub-humid to sub-tropical*: rainfed agricultural zones, including issues of soil fertility, protection from soil erosion, sustainable use of groundwater (cross-cuts with climate change, biodiversity, and aspects of international waters).

19. In order to avoid wasteful overlap in mandates and make use of the comparative advantages of organizations and/or other GEF focal areas, the following types of interventions will not be accorded priority for financing in the GEF land degradation focal area:

- (a) Development, testing and validation of SLM and land degradation control technologies.
Reason: CGIAR system has a comparative advantage in these types of activities; strong collaboration will be sought.
- (b) Assessment unrelated to uptake and use in achieving wider impact.
Reason: agencies such as UNEP or FAO have a comparative advantage in undertaking such assessments within their work plans.
- (c) Forest plantation and protection of closed forests.
Reason: protection and management of closed forests will be addressed through the biodiversity focal area.

- (d) Agroforestry and forest management if not managed in the wider landscape.
Reason: agroforestry and forest management are areas of comparative advantage for the CGIAR, specifically ICRAF and CIFOR, and for FAO.
- (e) Coastal zone restoration and management.
Reason: this thematic area will be addressed through the biodiversity and international waters focal areas.
- (f) Disaster and pollution management, including dealing with mine spills. *Reason:* GEF agencies such as the World Bank, UNDP or IFAD have listed these activities within their work plans. Other non-GEF organizations have oriented their mandates to respond quickly to disasters. GEF eligible activities related to pollution will be financed primarily through the international waters focal area.
- (g) Wetlands restoration and management, except relevant to integrated land use planning.
Reason: this thematic area will be addressed through the biodiversity and international waters focal areas.
- (h) Large-scale irrigated agriculture except relevant to integrated land use planning.
Reason: this thematic area will be addressed through the international waters focal area if competition for water resources and related conflicts are an issue. Because of the limited allocation for the land degradation focal area, activities related to direct investments in large-scale irrigated agriculture will not be financed by the GEF.

VI. PROPOSED STRATEGIC PROGRAMS FOR GEF FINANCING

20. As finance in GEF-4 is limited, the strategy for the land degradation focal area in indicates only three strategic programs. These strategic programs are:

- (a) supporting sustainable agriculture and rangeland management;
- (b) supporting sustainable forest management in production landscapes; and
- (c) investing in innovative approaches in sustainable land management.

Strategic Program 1: Supporting Sustainable Agriculture and Rangeland Management

20. This program will include three elements:

- (a) *Dryland management in areas of intense competition for land resources:* this program element will focus on arid to semi-arid eco-zones with critically endangered ecosystems where herders, agriculturists and other resource users face increasing competition for land resources. In these regions, the greatest constraint

is low primary productivity, leading to either over-exploitation or to under-utilization and abandonment. The enabling environment for activities in SLM varies by country, with institutions often having difficulties to handle cross-sectoral issues in an integrated way. These zones have critically-endangered and degraded ecosystems that will require targeted up-scaling of SLM investments. Regional priorities for this program element are Northern Africa and the Sahel of Africa, drylands of Asia (incl. Iran and Mongolia) and the Middle East.

- (b) *Management of semi-arid to sub-humid mixed land uses in areas prone to severe soil erosion and loss of soil fertility:* this program element will focus on the protection of biodiverse grasslands, *savanna* and *cerrado*-type ecosystems that support large numbers of resource-poor smallholder farmers. Key issues in these areas are the high fragmentation of land use and ownership of the landscape due to high population density. The enabling environment for activities in SLM is often weak, but varies widely from countries to country; some countries do have the necessary institutional and professional capacity to handle cross-sectoral activities that engage between landscape elements such as water, soil, grassland, wildlife and woodlands, but many other countries do not. Regional priorities for this program element are semi-humid Africa (Sahelo-Sudanian and Sudanian zones) and wooded grasslands of Central and South America.
- (c) *Sustainable management of mountain ecosystems:* this program element will focus on the protection of mountain ecosystems and landscapes that are socio-economically and environmentally significant. Issues include protection of water sources, prevention of soil erosion, integrated land and watershed management, and the stabilization of cropping, pastoral and forest systems. Issues related to biodiversity, adaptation to climate change and protection of international water bodies should be addressed in an integrated way. Regional priorities are the hillsides and uplands of East and North-East Africa, the Andes, the Caucasus and the Hindu Kush-Himalaya.

Strategic Program 2: Supporting Sustainable Forest Management in Production Landscapes

22. This program will support landscape approaches to the management of woodlands, humid forest margins and reducing forest fragmentation. During GEF-4, support will be provided to: a) strengthen the enabling policy and institutional environment for managing forest and woodland resources in the wider production landscape; b) define strategies to avoid the degradation of woodlands, forest margins and further forest fragmentation mainly caused by expanding cropland and grazing activities and unsustainable harvesting of fuel wood; and c) replicate successful practices for SFM in the wider landscape to restore the integrity of forest ecosystems. Priority is given to *savanna/cerrado*, *miombo* ecosystems, forest fragments and humid forest margins. In this program, issues related to climate change and biodiversity in forest and woodland ecosystems may also feature. Regional priorities are the margins and buffer zones of the Congo and Amazon Basins, South-East Asia, Central American dry and montane forests, and the South American *Chaco*.

Strategic Program 3: Investing in New and Innovative Approaches in Sustainable Land Management

23. This program will focus on creating new scientific and technical knowledge on emerging issues – to facilitate future strategy discussion for GEF-5, and to enhance GEF operations in the Land Degradation focal area. The following main themes have been identified:

- (a) types of incentive system or tax regimes to recover and reinvest land resource rents and to promote SLM;
- (b) assessing and evaluating emerging evidence of the links between security of tenure and sustainable land and natural resource management;
- (c) forest conservation as a means to protect carbon stocks and avoid CO₂ emissions (joint between Biodiversity/Climate Change/Land Degradation); and
- (d) development of safeguards and voluntary certification standards for sustainable biomass production (joint between biodiversity/climate change/land degradation).

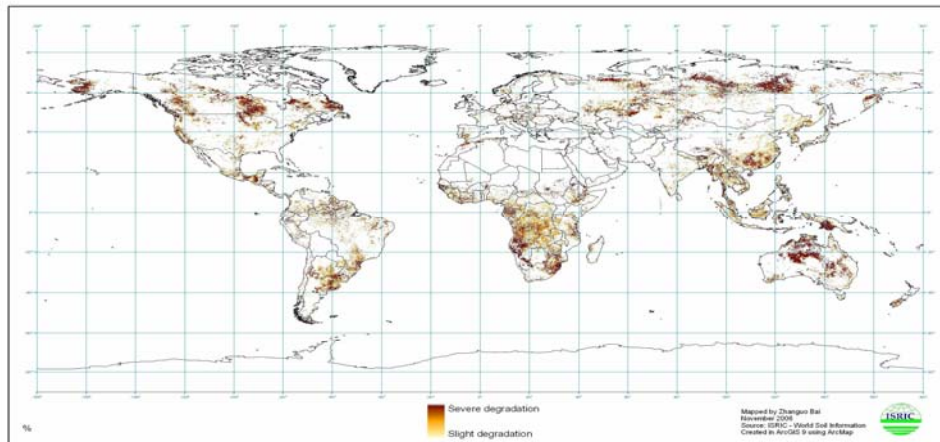
Table 2: Summary of Strategic Programs for GEF-4

Strategic Program	Expected Program Outcome (for expected impact, please refer to table 1)	Program Outcome Indicators (for impact indicators, please refer to table 1)
1. Supporting Sustainable Agriculture and Rangeland Management	In intervention areas, an enabling environment for sustainable rain-fed crop production and rangeland management is created and natural resources (incl. dryland forests, water and energy) are managed in an integrated way	<p><u>In partner countries:</u></p> <ul style="list-style-type: none"> • Each partner country has a new harmonised policy for each major land use type (agriculture, livestock) and/or has adopted a national land use policy • % of extension programs offered by key institutions reflects ecosystem principles and concepts • % increase in joint activities between specialized institutions • % increase in allocation of resources to sectoral ministries dealing with natural resources • Net and <i>per caput</i> access of rural land users to rural credit facilities and/or revolving funds • % increase in area where SLM best practices are applied
2. Supporting Sustainable Forest Management in Production Landscapes	Forest resources in humid forest margins, forest fragments and woodland resources in semi-arid and sub-humid ecosystems are managed sustainably as part of the wider landscape	<p><u>In partner countries:</u></p> <ul style="list-style-type: none"> • Each partner country adopts a new harmonized policy for SFM and/or a national land use policy adopted • % of extension programs offered by key institutions reflects ecosystem principles and concepts in wider landscape management, including forest and woodland resources • % increase in allocation of resources to sector ministries dealing with forest and woodland resources • % increase in net and <i>per caput</i> access of forest and woodland dependant land users to rural credit facilities and/or revolving funds • % increase in area where SFM best practices are applied
3. Investing in New and Innovative Approaches in Sustainable Land Management	Enhance scientific and technical knowledge of emerging issues, facilitating the strategy discussion for GEF-5 and enhancing GEF operations in the LD focal area	<ul style="list-style-type: none"> • Newly created scientific and technical knowledge supports strategy discussion for GEF-5 • % of designs of project to be financed in GEF-5 reflect new scientific and technical knowledge • New knowledge assists % of GEF-4 financed projects in preparation and implementation

Annex 3 Attachment 1: Maps relevant for Decision-Making on Allocation of GEF-4 Funds under the Land Degradation Focal Area

1. Global Land Degradation 1981-2003 (ISRIC working document, February 2007)

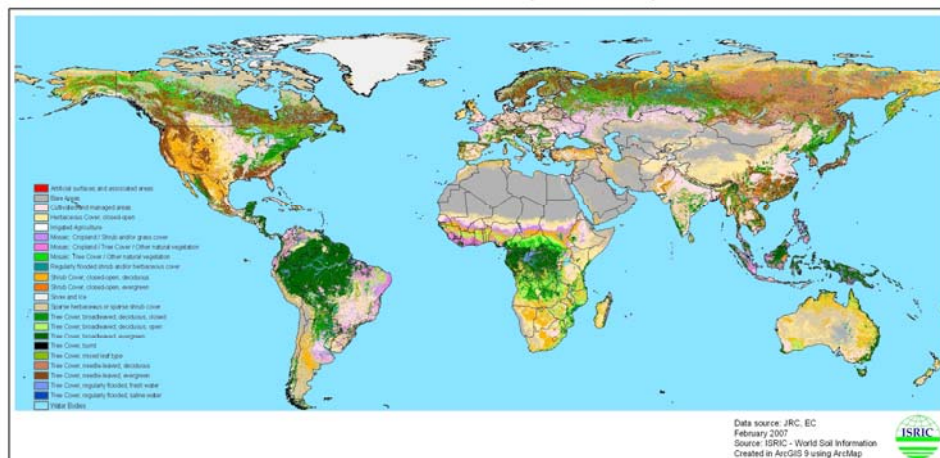
The map combines trend of biomass production and trend of rain-use efficiency, both over the 23-year period, at a definition of 8km. The map shows areas where trends of both the biomass and rain-use efficiency are negative. For irrigated areas, only biomass trend is considered. Urban areas are excluded. The map highlights areas where land degradation has taken place over the reference period, as opposed to the total historical legacy of degradation. The map may be used to identify areas where GEF intervention is needed; it also may be used to prioritize proposed project interventions.



2. Global Land Cover 2000 (EU Joint Research Centre, 2000)

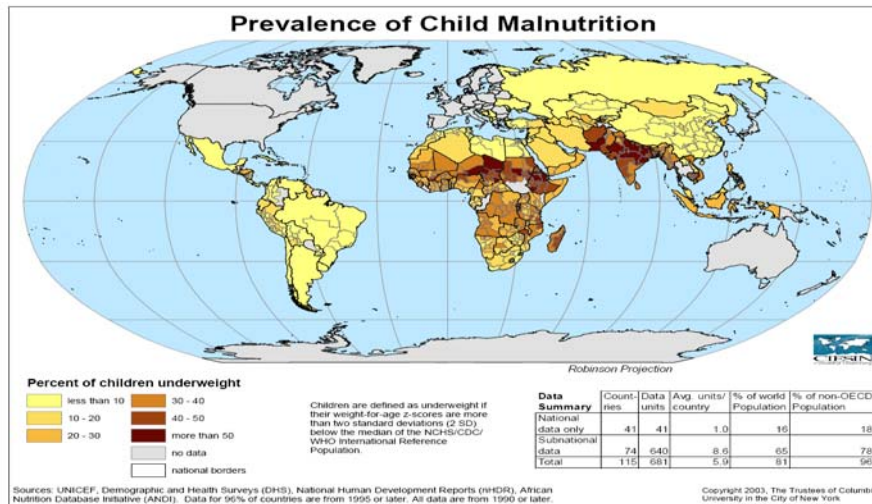
The map presents an assessment of land cover in the year 2000. The map shows land cover categories at a definition of 1km, mapped by interpretation of satellite imagery. The map may be used for comparison with the global land degradation map - to assess which land cover categories are most affected by land degradation; by extension, we may judge which are most at risk. Land cover categories are used as proxies for land use types and ecosystems.

Global land cover (GLC 2000)



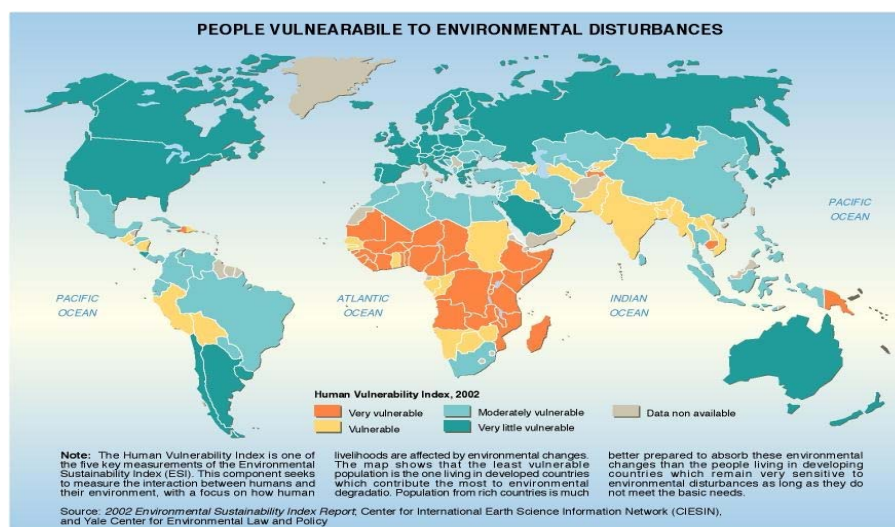
3. Poverty: Prevalence of Child Malnutrition (Columbia University, 2003)

The map presents the prevalence of child malnutrition as an indicator for poverty. Children are defined as underweight if their weight-for-age z-scores are more than two standard deviations (2 SD) below the median of the NCHS/CDC/ WHO International Reference Population. The map may be used to prioritize proposed project interventions and, also, to identify areas where land degradation and poverty are closely linked – and, therefore must be addressed simultaneously.



4. Global Distribution of Vulnerability to Environmental Disturbances (CIESIN and Yale Center for Environmental Law and Policy)

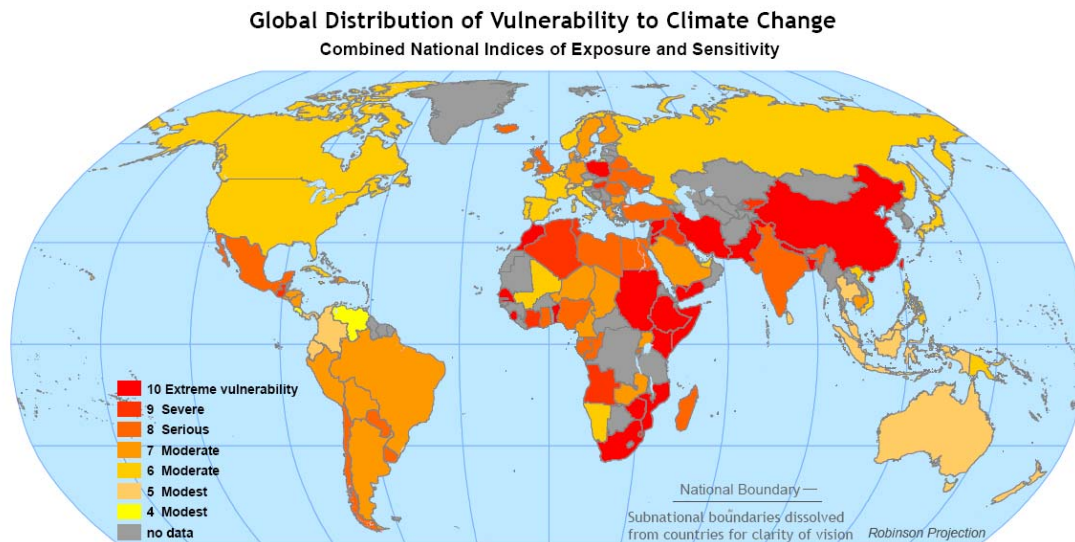
The map presents the different grades of vulnerability of people to environmental disturbances. The Human Vulnerability Index is one of the five key measurements of the Environmental Sustainability Index. This component seeks to measure the interaction between humans and their environment, with a focus on how human livelihoods are affected by environmental changes. The map may be used to identify areas in which people are very sensitive to environmental changes and least prepared to absorb them. The map may be used to prioritize actions in proposed interventions on SLM on reducing the vulnerability of rural people to environmental disturbances such as land degradation.



5. Global Distribution of Vulnerability to Climate Change

(Wesleyan University and Columbia University, 2006)

The map presents the vulnerability index to climate change, which combines both national indices of exposure and sensibility. These indexes are related to the variation of the annual mean temperature in 2100 equal to 3.3°C, calculated under the A2-550 ppm emission scenario (optimistic) and with climate sensitivity equal to 5.5°C (high value). The potential impacts of such a variation have been aggregated in the indexes. The vulnerability spectrum ranges from modest to extreme vulnerable. The map may be used to identify areas that may be at future risk of land degradation due to impact of climate change. A comparison with the actual global land degradation map could help us identify in particular those areas which are not at risk today, but which might be significantly affected by land degradation in the near future, so that preventive actions are undertaken.



<http://ciesin.columbia.edu/data/climate/>

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ANNEX 4. INTERNATIONAL WATERS FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

I. INTRODUCTION

1. The GEF international waters focal area addresses sustainable development challenges faced by states sharing transboundary surface, groundwater, and marine systems. These cross-border challenges range from pollution, loss of critical habitats and biodiversity, ship waste and alien species, to overuse and conflicting uses of surface and groundwater, over-harvesting of fisheries, and adaptation to climatic fluctuations (e.g. associated droughts, floods, sea level rise, reef bleaching).

2. The 1995 GEF Operational Strategy defined the kinds of transboundary concerns to be addressed under the International Waters (IW) focal area and recognized links between the focal area and Agenda 21 Chapters 17 and 18 on oceans and freshwater. In support of Agenda 21 and the transition to sustainable development, the IW area also contributes to human well being and poverty eradication by sustaining livelihoods, securing food sources, promoting equitable access to water, and reducing water-related health risks as a result of its interventions. With transboundary complexities, these results take time to produce as trust and confidence must first be built among states in a bottom-up process before progress can be made on water and ocean security. This patience can pay off in generating political commitments that may sustain collective, multi-country action over time.

II. BACKGROUND

3. A decade of GEF experience with IW projects shows that interventions in multiple countries with regional projects are more cost-effective than individual country projects in gaining commitments to transboundary action. In addition, GEF builds trust and confidence for sovereign states working together on shared water-related concerns in order to avoid political conflicts among neighboring states and pursue joint development benefits, which has resulted in building sustainable regional institutions for collective action after GEF support ends. This strategy of using foundational processes to stimulate political commitment to collective action and then scaling up with innovative policy, legal and institutional reforms and demonstrations may take 10 years in individual transboundary water systems and successive GEF projects to achieve. In fact, this would be a reduction in time over past experiences in the Rhine River Basin, the North Sea and the North American Great Lakes, where action took many decades to catalyze and continuing transboundary concerns about water, fisheries, habitat and pollution still need attention.

4. During GEF-4, the GEF Council-approved mandate of utilizing integrated, ecosystem-based approaches to management of transboundary water systems will be stressed. This GEF support places human activities at the center of the transboundary systems and bases interventions on modifying those human activities so that multiple benefits may be sustained. GEF has a long history of stimulating development of multi-agency collaboration in this focal area and will continue to promote this collaboration to meet water-related development targets agreed to by the international community, such as the Johannesburg targets. Partnerships among

agencies will continue to be pursued to assist them in working together more coherently within comparative advantages consistent with country priorities and the United Nations reforms currently being undertaken. Such collaboration among agencies contributes to increased development effectiveness and synergies among GEF focal areas, and is essential to mobilize the billions of dollars necessary to scale-up GEF work.

5. The third independent Overall Performance Study of the GEF (OPS3) in 2005 and internal reviews have documented success in use of GEF-recommended processes for achieving the first strategic objective through its special capacity building or foundational projects (equivalent to GEF enabling activities). OPS3 reported that outcomes have been robust, targets set by the second and third replenishments were exceeded, and the focal area had proven to be an effective agent for policy, legal and institutional reforms and for the creation of enabling environments. OPS3 concluded that the IW focal area was ready to move from a testing and demonstration mode to scaling-up of full operations in support of agreed incremental costs of reforms, investments, and management programs needed to reduce stress on transboundary freshwater and marine systems. This transition to implementing on-the-ground reforms and stress reduction measures to meet the second Council-approved objective is the primary focus of work for international waters during GEF-4; and with resources provided, a modest start can be made.

III. DIFFERENCES BETWEEN GEF 3 AND GEF 4

6. The GEF IW focal area was the only focal area to receive a decrease for GEF-4 over GEF-3. The GEF-3 allocation was US\$430 million while the GEF-4 amount is US\$355 million (although further reductions to support the GEF Small Grants Program and other priorities reduce this to US\$335 million). With less funding, fewer accomplishments should be expected in GEF-4 as indicated by simple targets approved in the replenishment programming. The availability of funding also results in a distinct focusing of the GEF-4 strategy on just a few top priority transboundary water themes in order to better deliver results. Many of the other transboundary concerns not listed as a priority have been requested to be added back in the comments on previous drafts of this strategy. These suggestions have not been incorporated.

7. While GEF-3 programmed resources through Operational Programs 8, 9, and 10, GEF-4 resources are programmed through four limited Strategic Programs. Projects previously supported in GEF-2 and 3 often addressed general cooperation on transboundary waters and preventive interventions. With limited resources, there will need to be a sense of country-driven urgency about an imminent transboundary water concern included in the strategy for resources to be programmed. In addition, oil-related ship pollution, inland fisheries, general pollution concerns in basins, protected areas for transboundary wetlands, and general monitoring of transboundary water systems would not be supported unless one of the four programming themes is also involved. This does not mean that GEF will not address these important concerns in the future. The priority setting included herein is just for GEF-4.

8. Changes have also been made in comparison to the draft strategy Council reviewed in December 2006. Based on comments from the Council and the International Waters Technical Advisory Group, the third objective related to innovative demonstrations was incorporated into

the other two objectives and they are now expressed using wording from the original GEF Operational Strategy. The two strategic objectives for GEF-4 represent a simplification and focusing with respect to the three objectives included in December 2006 version. With existing levels of GEF resources, focus will be placed on only a few globally significant transboundary issues in order to increase the likelihood of significant impacts as part of a delicate balancing of interests and pressing global transboundary concerns.

IV. STRATEGIC OBJECTIVES

9. Realizing the complexity of these challenges, the difficulties that even developed states continue to have in addressing these large transboundary water systems, and the decadal or longer time frame for results to be measurable in large systems, the GEF Operational Strategy in 1995 adopted a stepwise catalytic approach, which was reflected in the two objectives for the IW focal area:

- (a) to foster international, multi-state cooperation on priority transboundary water concerns through more comprehensive, ecosystem-based approaches to management; and
- (b) to play a catalytic role in addressing transboundary water concerns by assisting countries to utilize the full range of technical assistance, economic, financial, regulatory and institutional reforms that are needed.

10. These two objectives adopted by the GEF Council remain valid today and will serve as the strategic objectives (SOs) for GEF-4 as in the following table:

Table 1. Strategic Objectives for the International Waters Focal Area

Strategic Objective	Expected Impacts	Indicators
1. To foster international, multi-state cooperation on priority water concerns	Political commitments to improved multi-country cooperation supporting sustainable economic development opportunities, stability, and water-related security in transboundary water systems	Multi-country agreements Co-financing Goal- 1:1
2. To catalyze transboundary action addressing water concerns	Participating states demonstrate the necessary ability to reduce over-exploitation of fish stocks, reduce land-based coastal pollution, and balance competing water uses in basins and report subsequent water-related improvements	Trend analysis supported by the GEF through a new Transboundary Waters Assessment Program and additional states meet Johannesburg (JPOI) targets on sustainable fisheries, IWRM, and ICM compared to 2006 Co-financing Goal- 2:1

11. In the past, GEF has supported interventions addressing many different globally significant transboundary water concerns. With GEF-4 resources being insufficient to continue addressing all of these transboundary issues, the focal area will focus on four major

transboundary water-related priorities for GEF-4. These global concerns have emerged in recent assessments such as the Millennium Ecosystem Assessment and the GEF Global International Waters Assessment as posing grave risks to transboundary water ecosystems as well as serious barriers to achieving sustainable development. The four global concerns are:

- (a) depletion of coastal and marine fish stocks and associated biological diversity;
- (b) nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in Large Marine Ecosystems;
- (c) overuse and conflicting uses of water resources in surface and groundwater basins; and
- (d) melting of ice in high-altitude basins and polar systems.

12. As proposed in the GEF Replenishment Programming Paper (GEF/R.4/33), greater resources will be devoted during GEF-4 to on-the-ground implementation and innovative demonstration projects to meet Strategic Objective Two - perhaps 75% for implementation and demonstrations compared to 25% for foundational capacity building and targeted learning for the portfolio.

13. Partnerships among agencies will be sought to leverage the billions of dollars of resources necessary to secure the socio-economic benefits that transboundary water systems provide to the communities that depend on them. These partnerships for scaling-up implementation consistent with OPS3 recommendations for this focal area have been termed “International Waters Partnership Investment Funds” beginning with approval of the Danube/Black Sea Basin Investment Fund by the GEF Council in 2001. The expedited procedures and predictability of resources in these investment funds provide incentives for multilateral banks to make the decision to set internal priorities for sectoral action that can leverage the scale of resources necessary to address such large-scale transboundary concerns. GEF experience has been that piecemeal approaches are unable to provide the necessary attention within multilateral banks to internalize these transboundary concerns, and GEF would thereby not be successful in scaling up its operations to meet SO-2.

14. An increased emphasis on targeted experience sharing and learning among the new and existing GEF IW projects in the portfolio is planned to improve capacity of projects to achieve objectives and to identify and replicate good practices before project completion. South-to-South experience sharing among IW projects contributes to quality enhancement for the GEF IW portfolio, development of knowledge management tools to capture good practices, and accelerated replication of good practices. With the help of its IW:LEARN program, its web-based resource center (www.iwlearn.net), and the GEF International Waters Task Force, this portfolio learning is an important feature of GEF programming and will be enhanced with a focus on many Africa IW operations now underway.

V. STRATEGIC PROGRAMS IN GEF-4

15. The following sections describe four strategic programs in the international waters focal area for GEF-4 that focus on the four priority global themes. They concentrate GEF resources on the four concerns rather than scattering the resources. The two objectives for the focal area from 1995 remain overarching SOs for GEF 4. The two SOs are applied to the programming themes to direct GEF level of effort, the outcome of which can be considered more specific application of the SOs to each strategic program. For consistency with the GEF-4 Replenishment Programming Paper, project results will be aggregated under each of the two strategic objectives for reporting purposes.

Strategic Program 1: Restoring and Sustaining Coastal and Marine Fish Stocks and Associated Biological Diversity

16. Serious depletion of coastal and marine fish stocks and use of unselective and destructive fishing practices are threatening coastal economies and the communities depending on them as well as causing adverse impacts on biological diversity. US\$ 60 billion in international trade in marine fisheries products are at risk from this depletion as the oceans are being emptied of larger species. In addition, other substances toxic to fish, biodiversity, and humans (hazardous algal blooms and paralytic shellfish disease) are transferred across borders in ship ballast water.

17. The impact of decline of fish stocks and destructive practices has serious implications for loss of species and biomass of ecosystem structure, integrity and stability. Consequently, the GEF IW focal area will join forces with biodiversity during GEF-4 to achieve cost-effective solutions. Already, 123 different states have requested GEF help to work with their neighbors in GEF IW foundational capacity building projects for almost one-half (14) of the planet's Large Marine Ecosystems (LMEs) that are shared by developing countries in recognition of these social and economic concerns. GEF-recommended processes are underway toward development of ministerially-agreed collective programs of action that should benefit from use of marine protected areas (MPAs). The International Code of Conduct for Responsible Fisheries was adopted by the FAO Conference in 1995. GEF projects will be encouraged to utilize this instrument in their work toward the JPOI.

18. Where capacity is built and action programs agreed, GEF will support policy, legal, and institutional reforms and multi-agency partnerships that contribute to WSSD targets for sustaining fish stocks, including regional and national-level reforms in governance, access rights, and enforcement, mostly in LMEs in order to utilize ecosystem-based approaches to assessment and management of fish stocks in these critical systems. Also supported would be investments in sustainable alternative livelihoods (such as aquaculture), habitat restoration, fish refugia, limited use designations (including marine protected areas from the biodiversity area, especially in Asia), technical assistance, less destructive gear to reduce stress on wild fish stocks and biological diversity, and provisions of the 1995 International Code of Conduct for Responsible Fisheries. Solutions to concerns on the high seas will be pursued as will be engagement of the business community and fishing industry to develop and implement solutions and work with GEF IW projects.

19. A number of these interventions are appropriate for implementation within the frameworks of Integrated Coastal Management (ICM). Consistent with the ecosystem-based approach in addressing multiple stresses through ICM and linkages to upstream basin management through Integrated Water Resources Management (IWRM), the focal area will pursue collaboration on inter-linkages among GEF focal areas (especially biodiversity) that can sustain livelihoods, food security, and coastal habitats as a contribution to marine-related Johannesburg targets. These approaches can assist communities and states to adapt to fluctuating fish stocks and coastal climatic regimes. Where SIDS are located in LMEs with continental states, they will be supported as part of the GEF LME interventions as well as in possible interventions in areas of high seas.

20. Where capacity and agreement among states is not yet achieved for reducing depletion of living resources, an enabling environment for action will be created through foundational projects in states sharing a few additional LMEs as well as limited demonstrations addressing invasive species in ship ballast water. Targeted learning projects will be undertaken for the IW portfolio to enhance South-to-South experience sharing and learning, knowledge management (KM), and capacity building to replicate good practices.

Strategic Program 2: Reducing Nutrient Over-Enrichment and Oxygen Depletion from Land-Based Pollution of Coastal Waters in LMEs Consistent With the GPA

21. Global assessments identify land-based pollution of coastal and marine waters and resulting eutrophication as creating economically and ecologically problematic “dead zones” of oxygen-deficient water. The problem is worsening globally and is caused by excessive levels of nitrogen and phosphorus pollution and oxygen-demanding substances from agriculture, human sewage, and industrial effluents. Recent projections forecast a doubling of nutrient loadings by 2050 in some areas such as Asia, with major impacts on communities and coastal economies.

22. In 1995, a global action program known as the GPA (Global Program of Action for the Protection of the Marine Environment from Land-based Activities) was adopted by over 100 countries in Washington, D.C. and a special provision was included in the Council-approved GEF Operational Strategy for GEF support to countries for demonstration activities and catalytic action toward reforms. With the situation of “dead zones” and nitrogen stimulation/degradation of reefs worsening, more attention will be placed by GEF on this transboundary concern.

23. Many bilateral and multilateral programs focus on sanitation and ignore sewage and agriculture pollution, which are major contributors to the growing problem that contributes to decline of coastal and marine fisheries. As a result of projections showing major nutrient pollution and “dead zone” concerns developing in Asia, the GEF IW focal area will join forces with the land degradation focal area on this in East Asia and will assist countries elsewhere to reduce land-based pollution, including a focus on SIDS to protect reefs and lagoons.

24. GEF will foster ecosystem-based approaches to assessment and management of LMEs that include reducing land-based pollution and the resulting eutrophication of coastal “dead zones” in support of the GPA. Where capacity is built and collective action agreed upon, support will be provided for national/local policy, legal, and institutional reforms to reduce land-based inputs of nitrogen and other pollutants consistent with agreed transboundary action

programs and the GPA. This includes incorporation of nutrient reduction into national and local ICM strategies. Innovative partnerships, investments and financing will be pursued (including use of revolving funds and investment funds) addressing agriculture, municipal, and industry sector pollution and for wetland restoration/enhancement (including use of locally acceptable ecological sanitation and simple treatment in support of Johannesburg targets—especially in SIDS). A focus on Asia with the land degradation area will be targeted to incorporate nutrient management and cycling in agriculture to address non-point sources of pollution. The business community will be engaged in solutions, and attention will be paid to environmental flows in rivers to ensure sustenance for downstream coastal ecosystems.

25. Where capacity is not yet built to address these GPA-related concerns, an enabling environment for action will be created through foundational projects for a number of new transboundary systems, working with external networks related to pollution sources and external initiatives, and targeted learning will be undertaken for the IW portfolio to enhance South-to-South experience sharing and learning, knowledge management, and capacity building to replicate good practices.

Strategic Program 3: Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins

26. Overuse and conflicting uses of water resources in transboundary surface and groundwater basins result in significant ecological and economic damage, reduced livelihoods for the poor, and increased political tensions among upstream and downstream states. With more frequent droughts and floods, the conflicts and water scarcity increase dramatically. Additionally, shallow groundwater over-extraction and saline intrusion along coasts are becoming major global threats to human development and environmental sustainability.

27. Use of Integrated Water Resources Management (IWRM) policies has been identified as the answer to balancing competing and conflicting uses of water resources to inform and consider tradeoffs being made in socio-economic development objectives and ecosystem protection. These hydrologic unit-based IWRM approaches provide a framework for practical considerations in tradeoffs among water resource uses with participation of stakeholders and support the incorporation of benefits across boundaries into decision-making. Targets related to IWRM were adopted at the Johannesburg Summit. Links between IWRM in basins and ICM at downstream coasts are of pivotal importance as transboundary cooperation contributes to securing not only local water uses but also global public goods that benefit all stakeholders.

28. Through GEF assistance, capacity is being built in many African states through foundational projects in one dozen transboundary surface/groundwater basins to take the next steps in implementing IWRM and other modern water resource management policies to improve water security for communities, reduce conflicts among states, improve ecological flows in basins, and adapt to fluctuating climatic regimes. Over time, these interventions contribute to improved community livelihoods, increased crop yields where unsustainable irrigation practices are used, improved environmental flows, and reduced health risks where pollutants create such risks. The global water crisis results from a crisis of governance that has to be addressed at the transboundary scale in addition to the national and local scales.

29. Where capacity is built to work jointly in transboundary surface and groundwater basins, GEF will support the balancing of conflicting/competing water uses through application of IWRM, enhanced functioning of joint management institutions, integrated natural resources management across focal areas, groundwater being systematically incorporated into surface water management; improved flow regimes from infrastructure developed, protected water supplies, enhanced groundwater recharge, and increased resilience to fluctuating climatic regimes. With only modest resources available during GEF-4, this program is aimed primarily at quantity issues where competing water uses create priority and urgent concerns. Priority is also accorded to integrated approaches across GEF focal areas where multiple benefits may be generated because of inter-linkages such as with sustainable forest management. This may entail reforestation to protect groundwater recharge areas or to control erosion and soil loss in the upper reaches of watersheds with benefits in flow regulation and the hydrological balance of upper watersheds. Such cases of watershed intervention may include tests of payments for environmental services in various forms.

30. A limited number of sectoral demonstration activities will be undertaken to test innovative approaches, financing, and technologies for introducing IWRM as well as to protect/enhance groundwater supplies, especially in SIDS where multiple benefits can be gained in protecting drinking water supplies; reducing coastal pollution; and adopting ICM strategies. Groundwater-related and water reuse demos in the North Africa/Middle East region would be pursued in collaboration with the GEF land degradation focal area.

40. The approaches in this strategic program are recognized as being quite broad. There have been few requests to GEF in the past for these types of interventions compared to requests for marine assistance. Since the last replenishment, the potential importance in balancing these competing uses among states and among sector uses within cooperating states has increased as a result of security and stability concerns, and sovereignty interests among states need such a broad initial approach to catalyze progress. Where capacity is not yet built, an enabling environment for IWRM will be pursued in states sharing transboundary freshwater systems. Additionally, targeted learning will be undertaken for the IW portfolio to enhance experience sharing and learning, knowledge management, and replication of good practices that contribute to sustaining livelihoods as well as food and water security.

Strategic Program 4: Adapting to Melting Ice in High Altitude Basins and Polar Systems

41. Ice is a dominant characteristic of frozen transboundary waters in polar and high altitude ecosystems. Recent global assessments identify significant accelerated reduction of the spatial extent and mass of polar and glacial ice, creating significant ecological and economic changes of global significance and water stress for downstream communities and downstream states in transboundary basins. The problem is worsening globally and is accelerated by global warming that affects the national productivity of goods and services of marine polar ecosystems and the ice-water balance of high altitude glacial basins. With literally billions of people depending on slow ice and snow melt for downstream water supplies, the future stability and sustainability of their cities and villages are at risk.

42. Adding to the stress on polar systems and downstream water supplies are toxic compounds like heavy metals that settle out in cold regions from distant sources as a result of

rapid industrialization and energy use. In fact, many of these toxic substances have been stored in ice from airborne releases since the start of the industrialization on the planet, and additional risks are posed to ecosystems and human health from the melting and remobilization of them. Many of these compounds are toxic to animals, persist in the environment, and cross national borders to: a) bio-accumulate in freshwater and ocean food chains; and b) pose risks to ecosystem and human health. While POPs are a small subset of 12 such compounds, persistent toxic substances (PTS) pose significant health risks in food such as finfish, shellfish, and wildlife consumed by predators ranging from birds to polar bears and humans as well as locally in water supplies and through inhalation pathways wherever they are released into air or water.

43. In 1995, the GEF Council included demonstration projects to reduce releases of these PTS in the international waters focal area and subsequently in Operation Program 10. With many waters becoming unusable because of toxic pollutants and the accompanying risks to ecosystem and human health (especially with endocrine disruptors), there is a need to increase GEF's attention to reduction of PTS. Additionally, the tendency for PTS releases to accumulate in cold regions - with its risks to animals and humans that populate those regions and the complex socioeconomic implications presented by the melting ice - mean that the limited demonstration projects undertaken in GEF-4 on this programming theme will likely take on more significance in future GEF cycles.

44. GEF will foster ecosystem-based approaches to adaptive management for ice reduction effects in polar Large Marine Ecosystems and glacially dominated high altitude river basin systems, including the reduction of PTS as part of the GEF chemicals strategy. Consequently, this strategic program will be jointly addressed by GEF interventions in the international waters, climate change, and POPs focal areas. Ecosystem-based approaches involving living resources of the Arctic LMEs and basins from headwater ice to downstream coastal areas (consistent with IWRM strategies) would be utilized to undertake the demonstration projects. This would be a limited effort used to gather experiences for use in programming for subsequent replenishments of GEF.

45. Where capacity can be built and collective action agreed upon in transboundary settings (or among ministries in national basins), support will be provided for national/local policy, legal, and institutional measures for adaptive management to adjust to the reductions in ice cover and melt. This may involve the establishment of IWRM in basin organizations, drought management planning, demonstrations of water-use efficiency in water using sectors, and alternative sources of water supplies. In basins draining high-altitude ice, development of basin-specific IWRM adaptive management plans will provide a tool for downstream sectors and communities to adjust to new realities of water availability and drought management planning. Limited assessments would be supported, including mainstreaming assessments of polar marine systems and headwater ice fields into the GEF Transboundary Waters Assessment Program. Benefits would be provided to water users and water-dependent ecosystems in transboundary systems and in testing means of adapting to melting ice.

46. With regard to PTS, a limited demonstration component beyond POPs will be supported to test effectiveness of policies, innovative instruments, and technologies for reducing releases of these toxic substances, and to engage the business community in developing solutions to

demonstrate cost-effectiveness and “pollution prevention pays” strategies in support of the GEF Sound Chemicals Management Strategy. A number of economic sectors and transboundary river basins with risks from PTS or other toxic substances would be the subject of pilot demonstrations, with the results and experiences compiled for possible future GEF application. Some benefits are expected in cold regions as PTS releases are reduced in the special demonstration projects and transboundary test basins.

VI. SUMMARY OUTCOMES FOR STRATEGIC PROGRAMS IN IW

46. The summary of outcomes for each strategic program and indicators to be tracked is included in the following table. Some indicators will be tracked annually in the project performance reporting process and others only several times in the life of projects. The IW Tracking Tool tested in 2006 annual performance reporting will be modified to support the roll-up of the indicators. Targets were previously established in the replenishment process and progress will be rolled up annually. A GEF Transboundary Waters Assessment Program is planned to support monitoring of trends globally in transboundary water systems on a five-year scale. This assessment program will be utilized to track progress toward GEF IW strategic objective 2. This periodic assessment will also provide a more systematic assessment of transboundary water systems at risk, and early warning of potential conflicts and declining status.

Table 2: International Waters Strategic Programs

Strategic Program	Expected Outcomes	Indicators
<p>SP-1: Restoring and sustaining coastal and marine fish stocks and associated biological diversity</p> <p>Initial attention to global hot spots in Sub-Saharan Africa, Southeast Asia/Pacific, and Latin America/Caribbean Large Marine Ecosystems (LMEs), and accelerated entry into force of the global ship ballast water/ invasive species convention</p>	<ul style="list-style-type: none"> • Political commitments made to ecosystem-based joint action on sustainable fisheries and integrated coastal management (ICM) • Institutions and reforms introduced to catalyze implementation of policies reducing over-fishing and benefiting communities • Multi-agency partnerships catalyze replication of innovations • Increased coverage of marine protected areas (MPAs) 	<ul style="list-style-type: none"> • National inter-ministry committees • Ministerially-agreed action programs and local ICM plans adopted • Regional, national and local policy, legal, and institutional reforms adopted; evaluations show implementation effectiveness • Fish stock and habitat assessments • Per capita incomes at demo sites • Incorporation in CAS, UN frameworks, PRSPs, One UN • Number/extent of MPAs in national PA systems

<p>SP-2: Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA</p> <p>Initial efforts expected on nutrient and land-based pollution reduction in East Asian LMEs and the Mediterranean Sea LME, as well as on creating an enabling environment for action elsewhere</p>	<ul style="list-style-type: none"> • Political commitments made to nutrient and other pollution reduction and ICM • Institutions and reforms introduced to catalyze implementation of policies for coastal pollution reduction and ICM • Multi-agency partnerships catalyze replication of reforms and innovative investments for nutrient reduction 	<ul style="list-style-type: none"> • National inter-ministry committees • Ministerially-agreed LME and basin action programs and local ICM plans adopted • National and local policy, legal, and institutional reforms adopted; evaluations show implementation effectiveness • Monitoring levels of nutrient releases at demo sites • Joint action adopted by regional institutions on nutrient reduction • Incorporation in CAS, UN Frameworks, One UN, Bilateral programs
<p>SP-3: Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins</p> <p>Requests expected for the great basins of South America experiencing climatic fluctuations with additional work in African basins and the Mekong to introduce IWRM policies. Special focus on SIDS included for protecting community surface and groundwater supplies while reducing sewage releases. Groundwater protection strategies would be tested</p>	<ul style="list-style-type: none"> • Political and legal commitments made to utilize IWRM policies towards sustainable water use in transboundary basins • Institutions and reforms introduced to catalyze implementation of policies for basin-scale IWRM and increased water use efficiency • Communities benefit from access to water-related benefits in tests of innovative demonstrations of balancing water uses • In SIDS, water-related health risks reduced through protected water supplies 	<ul style="list-style-type: none"> • National inter-ministry committees • Ministerially-agreed action programs and basin IWRM plans adopted • National water resource and IWRM reforms/policies adopted; evaluations show effectiveness • Regional/basin agreements and institutions adopted; evaluations show effectiveness • Monitoring level of water use efficiency in demonstrations • Access determined in evaluations • Monitoring levels of sewage treatment and water supply protection measures in SIDS
<p>SP-4: Adapting to melting ice in high-altitude basins and polar systems</p> <p>A limited program testing strategies to adapt to melting ice and to reduce releases of persistent toxic substances (PTS) to inform future GEF replenishments</p>	<ul style="list-style-type: none"> • Adaptive management measures identified, agreed upon, and tested in a limited number of basins with high-altitude headwaters and one polar LME • Reduction of human and ecosystem health risks from PTS at demo sites • Incorporation of pollution prevention strategies for PTS into private sector operations 	<ul style="list-style-type: none"> • Ministerially-agreed action programs and basin IWRM plans adopted • Monitoring level of PTS releases at demonstration sites • Industry codes of conduct, new private sector initiatives

VII. INTER-LINKAGES WITH OTHER FOCAL AREAS

48. While one priority theme will serve as a focus for an international waters operation, there will be opportunities to address interlinked transboundary concerns as part of the ecosystem approach and provide multiple global environment benefits across focal areas through the inter-linkages. Cost-effective approaches of joining forces with other GEF focal areas for multiple benefits will be pursued, and partnerships are to be catalyzed to leverage the billions of dollars necessary to secure the socio-economic benefits that transboundary water systems provide to the communities that depend on them. The cost-effectiveness of such joint operations will be documented to inform GEF operations for future replenishment periods.

49. Twelve components of the strategic programs are proposed to address the four priority programming themes that have been identified. The individual projects in these components will be consistent with the GEF IW ecosystem-based approach to management for basins and LMEs, and partnerships will be stimulated with use of GEF International Waters Investment Funds, institutional reforms, and innovative financing to scale-up interventions into the billions of dollars needed to turn the corner on sustaining socio-economic benefits of transboundary water systems. Additionally, a number of projects involving SIDS in the IW pipeline will be combined with activities of other GEF focal areas into larger programs for regional groupings of SIDS. Experience-sharing and learning projects for the IW portfolio will be utilized to support the four strategic programs to build capacity and encourage replication of good practices in a spirit of adaptive management. These range from institutional and science-based learning to thematic and regional experience-sharing such as initiatives for the Africa IW portfolio and building on almost completed work in Eastern Europe.

50. The following table summarizes the components of each strategic program that provide opportunities for integration. The IW focal area proposes joining forces with some operations in other GEF focal areas in up to nine of the twelve components to achieve objectives more completely and perhaps more cost-effectively. This would be accomplished in a number of ways: from jointly-funded projects to individual projects in separate focal areas with linkage components. Not all projects within each component would necessarily have to be jointly undertaken with another focal area, and RAF limitations may end up precluding collaboration.

Table 3: Potential Interlinkages Between International Waters and Other Focal Areas

<p>SP-1: Restoring and sustaining coastal and marine fish stocks and associated biological diversity</p>	<ul style="list-style-type: none"> • Africa Regional LME Component (IW/BD) • Latin America/ Caribbean Regional LME Component (IW/BD) • Reducing invasive species in ship ballast water (IW/BD)
<p>SP-2: Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA</p>	<ul style="list-style-type: none"> • East Asia Regional LME Component (IW/LD) • Mediterranean Sea LME Component (IW/ POPs/ BD) • Global Component
<p>SP-3: Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins</p>	<ul style="list-style-type: none"> • South America Basin Component (IW/CC) • Pantanal basin (IW/BD/LD) • Groundwater component including NENA Region (IW/LD) • Global Component
<p>SP-4: Adapting to melting ice in high-altitude basins and polar systems</p>	<ul style="list-style-type: none"> • Polar and melting ice component (IW/CC) • PTS reduction component (IW/POPs)

ANNEX 5. PERSISTENT ORGANIC POLLUTANTS FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

1. The GEF's goal in the POPs focal area is to protect human health and the environment by assisting countries to reduce and eliminate production, use and releases of POPs, and consequently contribute generally to capacity development for the sound management of chemicals.
2. For the period of GEF-4, this goal will be met through:
 - (a) strengthening capacities for National Implementation Plan (NIP) development and implementation, including assisting those countries that lag farthest behind to establish basic, foundational capacities for sound management of chemicals;
 - (b) partnering in investments needed for NIP implementation to achieve impacts in POPs reduction and elimination; and
 - (c) generating and disseminating knowledge to address future challenges in implementing the Stockholm Convention.

I. BACKGROUND

Environmental and Human Health Consequences of Exposure to POPs

3. Mounting evidence of damage to human health and the environment has focused the attention of the international community on persistent organic pollutants (POPs). POPs are pesticides, industrial chemicals, or unwanted by-products of industrial processes or combustion. They are characterized by: *persistence* – the ability to resist degradation in various media (air, water, sediments, and organisms); *bio-accumulation* – the ability to accumulate in living tissues at levels higher than those in the surrounding environment; and potential for *long range transport* – the capacity to travel great distances from the source of release through various media (air, water, and migratory species).
4. Because of these properties, POPs are found throughout the world, including in areas far from their original source. The harm these chemical substances can cause to humans and animals includes disruption of the endocrine system, suppression of the immune system, reproductive dysfunction, and developmental abnormalities.
5. Although most intentionally-produced POPs have been banned and are being phased out in OECD countries, the situation in developing countries, and particularly in Least Developed Countries, is one characterized in many instances by inadequate legislative and regulatory frameworks, coupled with the near absence of capacity for enforcement and lack of awareness of the hazards associated with POPs exposure. As a result, the limited local capacity can lead to

regional and ultimately global contamination of the environment by POPs, with damage to the health and well-being of human populations, particularly the poor that are at greatest risk²⁵.

Convention Guidance

6. The Stockholm Convention on Persistent Organic Pollutants that was adopted in May 2001 and entered into force in May 2004 designates the GEF as the principal entity entrusted with the operations of the financial mechanism of the Convention, *ad interim*. The first meeting of the Conference of the Parties (COP) adopted guidance²⁶ for the financial mechanism that emphasises capacity building and establishes the NIP as the main driver for implementation activities. Specifically, the COP recommended that resources should be allocated to activities “that are in conformity with, and supportive of, the priorities identified in [parties’] respective national implementation plans.”

7. The COP at its second meeting in May 2006 adopted additional guidance²⁷ for the GEF, inviting in particular the GEF and its agencies to facilitate the leveraging of other sources of financing for the implementation of the Convention.

Knowledge Management

8. In pursuing the following strategic programs, the GEF will support the generation and dissemination of good practices and the development of practical guidelines, so that lessons learned from GEF projects and good practices in general are incorporated into the design of new GEF projects. Specific themes that could be analyzed include PCB management, NIP development, alternatives to DDT use in disease vector control or to POPs used as termiticides, or the application of the guidelines for best available techniques and best environmental practices. Themes that cut across sectors or groups of projects could also be considered, for example good practices in stakeholder involvement, or private sector participation.

Measuring Results

9. A number of indicators for each strategic program are described herein. Taken together, these constitute the POPs focal area tracking tool that is the basis for tracking progress in the implementation of the POPs focal area strategy, and will allow reporting on results and impacts for the focal area overall.

10. These indicators do not purport to be the only ones that could be used to describe achievements under a particular strategic program. The intent in selecting these indicators was to choose a limited number of indicators that could be measured and added up to provide a meaningful overview of portfolio achievement. Each individual POPs project will include, at the minimum, one of these indicators in their results matrix. It is expected, of course, that individual

²⁵ See *Toxics and poverty: the impact of toxic substances on the poor in developing countries*, Goldman L. and Tra N., The World Bank, 2002.

²⁶ Decision SC-1/9 can be found in the annex to the meeting report from COP-1 (document UNEP/POPS/COP.1/31):

http://www.pops.int/documents/meetings/cop_1/meetingdocs/report/default.htm.

²⁷ Decision SC-2/11 can be found in the annex to the meeting report from COP-2 (document UNEP/POPS/COP.2/30): http://www.pops.int/documents/meetings/cop_2/report/default.htm.

projects would also include other indicators to track all dimensions of expected project results, but these could differ between projects and may not contribute to the broad overall assessment of focal area-wide achievements.

11. The indicators encompass enabling environment indicators (e.g. regulatory framework in place, or increased capacity for enforcement) and stress reduction indicators (e.g. number and unit cost of tons of PCB destroyed in an environmentally sound manner, or amount and unit cost of avoided emissions of by-products). Environmental impacts will be assessed in the framework of the overall evaluation of the effectiveness of the Convention.

12. *Targets:* There is insufficient experience with the implementation of the Stockholm Convention to define targets upfront for all the indicators that are defined here. The tracking tool, however, will permit an accurate reporting of expected results at the end of the replenishment period and this will, in turn, facilitate the development of targets in the future.

Cost-effectiveness

13. Cost-effectiveness is one of the core principles of the GEF Operational Strategy. A cost-effective POPs project is one that achieves the requisite outcomes generating global benefits at the least cost, promotes replication, and is sustainable. Cost-effectiveness is one of the tools that are used during project development to support the analysis of, and ultimately the choice between, different project approaches. Cost-effectiveness can also be a useful tool for setting priorities in the context of limited resources and implementation capacity.

14. A rudimentary proxy of cost-effectiveness is the measure of the unit-cost of POPs phased out from use or production, or destroyed in an environmentally sound manner, or not released into the environment. Although this proxy cannot by itself be used to judge the merit of an intervention, it is a tool that will be recorded and reported to facilitate benchmarking.

II. STRATEGIC OBJECTIVE

15. The GEF's goal in the POPs focal area is to protect human health and the environment by assisting countries to reduce and eliminate production, use, and releases of POPs, and consequently contribute generally to capacity development for the sound management of chemicals.

16. The long term *impact* of GEF interventions is a reduction in the exposure to POPs of humans and wildlife. The *indicator* for this reduction of exposure is a decrease in the observed concentration of specific POPs chemicals in the environment. This global level indicator is to be assessed within the framework of the efforts of the Conference of the Parties to evaluate the effectiveness of the Convention, as required by Article 16 of the Convention.

17. The *strategic objective* of the GEF under the POPs focal area, in the mid-term and spanning a number of replenishments, is to assist eligible partner countries to implement their obligations under the Stockholm Convention and to achieve the purposes of the convention, including to reduce and eliminate production, use and releases of POPs. Table 1 presents the expected impacts of GEF interventions in the POPs focal area under GEF-4.

Table 1: GEF Strategic Objective in the POPs Focal Area

Strategic Objective	Expected impacts	Main Indicators
To reduce and eliminate production, use and releases of POPs	GEF-supported countries have strengthened capacity for POPs management and consequently strengthened capacity for the general sound management of chemicals	Regulatory and enforcement capacity in place
	Dangerous obsolete pesticides that pose a threat to human health and to the environment are disposed of in an environmentally sound manner	Obsolete pesticides disposed of
	PCBs, some of the most widespread toxics, are no longer a source of contamination of the local and global environment because they are phased out and disposed of	PCBs phased out and disposed of
	The risk of adverse health effects from POPs is decreased for those local communities living in close proximity to POPs wastes that have been disposed of or contained	Reduced risk of exposure to POPs of project-affected people
	The basis for the future implementation of the Stockholm Convention is established through the demonstration of innovative alternative products, practices, and processes to the generation, use or release of POPs	Knowledge management packages developed; in particular, the viability and cost-effectiveness of alternatives to DDT are demonstrated in a number of settings

III. STRATEGIC FOCUS IN GEF-4

18. GEF-3 efforts focused on supporting the development of National Implementation Plans (NIPs) as required in Article 7 of the Stockholm Convention; as of December 31, 2006, enabling activities to develop a NIP are underway in 131 countries. Of these, 93 countries have either completed their enabling activities or will soon do so. This total includes 26 countries that have already officially submitted their NIP to the COP of the Stockholm Convention.

19. Activities during GEF-4 will therefore be characterized by a shift from preparation to the implementation of NIPs. In order to achieve the long-term success of the Stockholm Convention, strong emphasis will be placed on the sustainability of GEF interventions, focusing especially on countries whose policies and actions demonstrate their firm intention to follow through on their commitment to the Convention.

20. Projects addressing unintentionally produced POPs are expected to be mostly of a planning and strategy development nature under GEF-4, thereby preparing the groundwork for more systematic efforts that will be required in future phases of the GEF²⁸.

²⁸ The Stockholm Convention COP will be considering for adoption the guidelines for best available techniques/best environmental practices at its third session in May 2007.

21. Under GEF-5, the following trends are expected: a further shift towards implementation, with strategic program 2 gaining pre-eminence over strategic program 1; a more systematic approach to unintentionally produced POPs, DDT alternatives, and alternatives to POPs termiticides, reflected by these themes being addressed under strategic program 2 rather than strategic program 3; work to support countries' participation in the evaluation of the effectiveness of the Stockholm Convention; and a round of review and update of the NIPs, in particular when new POPs are added to the Convention²⁹.

IV. STRATEGIC PROGRAMS IN GEF-4

22. Three strategic programs are proposed for implementation under GEF-4, and are described below and in Table 2. All projects approved under GEF-4 are expected to contribute to at least one of these programs.

Strategic Program 1: Strengthening Capacities for NIP Development and Implementation

23. *Objective (a) – NIP Development:* The GEF will continue to support eligible countries in meeting their obligation to develop and submit a NIP under the Stockholm Convention (enabling activities).

24. *Outcome:* GEF eligible countries meet their obligation to develop and submit a NIP to the COP of the Stockholm Convention.

25. *Indicators:* Two indicators of output and outcome are to be tracked through the GEF-4 replenishment:

- (a) NIPs submitted to the COP of the Stockholm Convention³⁰; and
- (b) number of countries receiving support to develop their initial NIP.

26. *Scope:* Efforts will be made to ensure that the NIP development process is embedded in a country's institutional framework for the sound management of chemicals, thereby contributing to strengthening that framework.

27. *Priority Countries:* This program will remain a priority for the small number of eligible³¹ countries that have not yet prepared their NIPs. It is expected that this will complete the GEF's funding of the initial NIP.

28. *Types of Projects:* Projects to be implemented under this program will be largely oriented towards enabling activities.

²⁹ As of March 2007, 10 chemicals/families of chemicals are under consideration by the subsidiary body of the Convention for possible recommendation of listing under the Convention.

³⁰ Parties to the Stockholm Convention have an obligation to submit a NIP to the COP of the Convention within two years of becoming a party.

³¹ Following Convention guidance, the GEF Council has extended eligibility of POPs enabling activities to developing countries and countries with economies in transition "that are in the process of becoming Parties to the Stockholm Convention".

29. *Objective (b) - NIP Implementation:* The GEF will strengthen and/or build the capacity required in eligible³² countries to implement their Stockholm Convention NIPs in a sustainable, effective and comprehensive manner, while building upon and contributing to strengthening a country's foundational capacities for sound management of chemicals.

30. *Outcomes:* GEF eligible countries have the capacity to implement the measures required to meet their obligations³³ under the Convention, including POPs reduction measures. As such measures will address the full range of chemicals (pesticides, industrial chemicals and unintentionally produced by-products), countries will be implementing measures that will improve their general capacity to achieve the sound management of chemicals.

31. *Indicators:* The following outcome indicators are proposed as a measure of capacity development for NIP implementation:

- (a) legislative and regulatory framework in place in supported countries for the management of POPs and chemicals in general;
- (b) strengthened and sustainable administrative capacity, including chemicals management administration within the central government in supported countries; and
- (c) strengthened and sustainable capacity for enforcement in supported countries.

32. *Scope:* Following Convention guidance, activities supported will be in conformity with, and supportive of, the priorities identified in countries' respective NIPs. Depending on NIP priorities, interventions can include strengthening legislative and regulatory frameworks; strengthening of human and institutional capacity; strengthening of monitoring and enforcement capacity; development and implementation of instruments to secure resources for NIP implementation; and raising awareness of, and engaging with, various non-governmental stakeholders including the private sector.

33. This program will include assisting those countries that lag the farthest behind to establish basic foundational capacities for the sound management of chemicals. Cooperation and coordination to enhance synergies with countries' responses to related multilateral environmental agreements³⁴ addressing chemicals issues will be encouraged. These two latter points constitute an operational response to the amendment of the GEF Instrument (Article 1, Paragraph 3, as amended in 2004) that provides that "the agreed incremental costs of activities to

³² Since the pertinent EU legislation imposes stricter obligations on EU member states than does the Stockholm Convention, no funding for EU member states is foreseen (Regulation EC No. 850/2004 on persistent organic pollutants).

³³ The COP of the Stockholm Convention will be considering for adoption at its third session the draft implementation plan for the global monitoring plan for the first effectiveness evaluation of the Convention. This would include the identification of monitoring programs that, with strengthening of capacity, could provide data coverage in areas otherwise inadequately represented. The GEF will keep a watchful brief with a view to defining support that may be provided to strengthen the capacity of eligible countries to support the implementation of COP decisions related to effectiveness evaluation, through country-driven and sustainable activities consistent with the GEF's mandate. This could lead to specific indicators and targets under future phases of the GEF.

³⁴ For example Basel and Rotterdam Conventions and the SAICM.

achieve global environmental benefits concerning chemicals management as they relate to the [six] GEF focal areas shall be eligible for funding.”

34. *Priority Countries:* Support under this high priority program should be targeted to countries that have limited capacity to implement their NIP. Countries must demonstrate a willingness to adopt the necessary policies and to continue support for the institutions strengthened with GEF support, for example through inscribing support for POPs management and reduction activities in the national budget. It is therefore expected that those countries that will receive support for capacity strengthening under GEF-4 will not require any such support to meet current obligations of the Stockholm Convention under future phases of the GEF.

35. *Types of Projects:* Projects to be implemented under this program will be largely oriented towards technical assistance and capacity building.

Strategic Program 2: Partnering in Investments for NIP Implementation

36. *Objective:* The GEF will partner in investments needed for NIP implementation to achieve impacts in the reduction of POPs production, use and releases, and reduce the stress on human health and the environment caused by POPs, including through promoting the use of substitute products or alternative practices that prevent or reduce the generation and/or release of POPs.

37. *Outcome:* Sustainably reduced POPs production, use and releases, through phase-out, destruction in an environmentally sound manner, and use of substitute products and alternative processes, that lead to reduced environmental and health risks resulting from POPs.

38. *Indicators:* The following four indicators³⁵ are proposed to track results under this program:

- (a) POPs phased out from use (tons and cost per ton per compound);
- (b) POPs phased out from production (tons and cost per ton per compound);
- (c) POPs destroyed in an environmentally sound manner (tons and cost per ton per compound and mode of destruction); and
- (d) reduced exposure to POPs, measured as the number of people living in close proximity to POPs wastes that have been disposed of or contained.

39. *Scope:* Following Convention guidance, activities supported will be in conformity with, and supportive of, the priorities identified in countries’ respective NIPs. Projects will seek to reduce POPs production, use and releases through phase-out, destruction in an environmentally sound manner, and use of substitute products and alternative processes. The precise nature of these interventions will be defined by the NIP, and could include for example the identification, labelling, removing from use and disposal in an environmentally sound manner of PCBs; the use

³⁵ Not all projects under this program will necessarily destroy POPs, but could decrease the risk of POPs releases and human exposure, for example through maintaining a PCB transformer or containment of soil contamination.

of non-POPs alternative products and practices for disease vector or termite control; or the environmentally sound destruction of POPs wastes and prevention of stockpiling. Emphasis will be placed on assisting countries in reducing their need for specific exemptions.

40. Consistent with priorities identified under a NIP, an intervention might specifically address threats from POPs to international waters, the sustainable management of land, or an area of high biodiversity conservation value. These linkages with the other GEF focal areas will be encouraged under GEF-4 in order to maximise the impact of GEF interventions.

41. *Priority Countries:* Support under this high-priority program should be targeted to countries that have already established much of the necessary enabling environment to implement their NIP, and that demonstrate a willingness to follow through on their commitment to phase out/reduce the targeted POPs.

42. *Types of Projects:* Projects to be implemented under this program will be largely oriented towards investment, with some technical assistance and capacity building included. Industrial and private sector involvement is expected to be significant and will be promoted under this program, which will require the GEF agencies to adopt appropriate approaches targeted to these stakeholders. Techniques and environmental practices that will also reduce pollution with other problematic pollutants will, in general, be preferred. These types of activities would offer the greatest opportunities for replication, which will be systematically promoted.

Strategic Program 3: Generating and Disseminating Knowledge to Address Future Challenges in Implementing the Stockholm Convention

43. *Objective (a) - Demonstrations:* In order to meet the future challenges that lay ahead in the implementation of the Stockholm Convention, the GEF will support projects that demonstrate and promote the replication of environmentally sound, alternative products to POPs, or the substitution of materials and processes to prevent POPs formation.

44. *Outcome:* Feasible and effective environmentally sound alternative products, practices and techniques that prevent POPs production, use or release are demonstrated. In particular, the GEF is expected to support a significant number of projects addressing DDT alternatives. Together with the two projects approved under GEF-3, this cohort of projects will provide a valuable dataset demonstrating the conditions necessary for successful implementation of DDT alternatives in a wide variety of socio-economic and ecological settings.

45. *Indicator:* Number of environmentally sound alternative products, practices, or techniques demonstrated that are efficacious and cost-effective.

46. *Scope:* Demonstration projects will be supported by the GEF where there is a need to test and demonstrate approaches before they could be implemented in a more systematic

manner³⁶. It is expected therefore that activities promoted through strategic program 3 could move up to strategic program 2 in future phases of the GEF. Funding for demonstration projects falls into two categories: projects that are linked to improved environmental practices that are not physical infrastructure (e.g., assistance to identify alternative products, practices or processes to DDT use in disease vector control and POPs used as termiticides); and projects that demonstrate the use of a particular technique to help enhance the infrastructure of a country to manage POPs (e.g., improving the capacity for POPs destruction in GEF recipient countries), or the demonstration of best available techniques/best environmental practices for the reduction of releases of un-intentionally produced POPs.

47. Emphasis will be on demonstrating that products, practices or techniques are appropriate within a particular context, rather than on the development and testing of untried products, practices or techniques. Techniques and environmental practices that will also reduce pollution from other problematic pollutants will, in general, be preferred.

48. *Priority Countries:* Where GEF intervention would have high demonstration value, where the country already has the necessary enabling environment, and where the country demonstrates a strong commitment to follow through on implementation following the conclusion of GEF support.

49. *Types of Projects:* Demonstration projects will include capacity building and technical assistance. Particular emphasis will be placed on the promotion of replication and wide dissemination of project outcomes. Priority will be given to projects carried out in cooperation with the private sector.

50. *Objective (b) – Targeted Research:* GEF will support a limited number of targeted research activities where this would increase the quality and effectiveness of a significant portion of on-going and future GEF-funded POPs activities.

51. *Outcome:* Increased quality and effectiveness of the GEF POPs portfolio through GEF projects, applying the results of targeted research.

52. *Indicator:* New projects apply the results of GEF-supported targeted research (this indicator is not relevant during the GEF-4 time-frame. An indicator of output that will be tracked during GEF-4 is the number of targeted research projects addressing critical portfolio needs supported).

53. *Scope:* Taking into account the large body of existing research in industrialized countries as well as the large potential to conduct further research there, it is expected that only a limited number of targeted research projects will be supported, focused on addressing information gaps in GEF client countries that would hinder the development of GEF projects and programs if left unaddressed. For example, the development/promotion of cost-effective techniques for the rapid assessment of POPs concentrations; development of methodologies for exposure assessment in

³⁶ The STAP has identified a number of issues that, if not addressed, could limit the successful implementation of the Stockholm Convention, including: alternatives to POPs termiticides; alternatives to DDT; lack of suitable destruction technologies in developing countries; and implementation of BAT/BEP.

susceptible populations; testing and demonstrating methodologies and techniques to identify and address contaminated sites related to stockpiles and wastes where this could generate significant cost-savings; and improvement in methods to estimate POPs releases.

54. *Priority Countries:* Targeted research will be supported in countries where projects can rely on existing institutions that can be harnessed and strengthened, as appropriate, in the process.

55. *Types of Projects:* Targeted research projects are expected to be medium-sized projects that include technical assistance and capacity building in GEF eligible countries' institutions, and encourage South-South cooperation and networking.

V. INTERLINKAGES WITH OTHER FOCAL AREAS

Table 2: GEF Strategic Programs for GEF-4 Financing under the POPs Focal Area

Strategic Programs	Expected outcomes	Indicators
1. Strengthening Capacities for NIP Development and Implementation	NIP development: GEF eligible countries meet their obligation to develop and submit a NIP to the Stockholm Convention (enabling activities)	NIPs submitted to the Stockholm Convention*
	NIP implementation: GEF eligible countries have the capacity** to implement the measures to meet their obligations under the Stockholm Convention, including POPs reduction measures	<ul style="list-style-type: none"> • Legislative and regulatory framework in place for the management of POPs, and chemicals more generally, in supported countries • Strengthened and sustainable administrative capacity, including chemicals management administration within the central government in supported countries • Strengthened and sustainable capacity for enforcement in supported countries
2. Partnering in Investments for NIP Implementation	Sustainably reduced POPs production, use and releases, through phase-out, destruction in an environmentally sound manner, and use of substitute products and alternative processes, that lead to reduced environmental and health risks resulting from POPs	<ul style="list-style-type: none"> • POPs phased out from use (tons and cost per ton per compound) • POPs phased out from production (tons and cost per ton per compound) • POPs destroyed in an environmentally sound manner (tons and cost per ton per compound and per mode of destruction) • Reduced exposure to POPs, measured as number of people living in close proximity to POPs wastes that have been disposed of or contained
3. Generating and Disseminating Knowledge to Address Future Challenges in Implementing the Stockholm Convention	Demonstrations: Feasible and effective environmentally sound alternative products, practices or techniques that avoid POPs production, use or release are demonstrated	Number of environmentally sound alternative products, practices, or techniques demonstrated that are efficacious and cost-effective
	Targeted research: Increased quality and effectiveness of the GEF POPs portfolio through GEF projects applying the results of targeted research	New projects apply the results of GEF-supported targeted research (not relevant during GEF-4 time-frame)

* Applies to all NIPs submitted during the GEF-4 replenishment period, including those that were funded during previous replenishment periods.

** The difficulty of measuring capacity development is acknowledged. The definition of the baseline at the beginning of a project will in particular be crucial. The GEF Office of Evaluation is conducting an evaluation of GEF's capacity development work that will inform the development and measurement of indicators for this strategic program.

56. The POPs focal area has linkages with all other focal areas of the GEF, either because POPs are a driver for ecosystem degradation and removal of POPs reduces the stress on those

ecosystems (e.g., biodiversity, sustainable land management, or international waters), or because interventions in one focal area can have co-benefits in the other (e.g., climate change, ozone depletion), or because interventions can be complementary (e.g., international waters, ozone depletion). GEF-4 strategic programs with the greatest potential for such linkages are identified below.

57. POPs are a subset of persistent toxic substances (PTS) and were historically eligible for GEF funding under international waters (IW). In order to maximise complementarity between the two focal areas, the IW focal area will now focus its activities on non-POPs PTS in IW strategic programs 2 and 4. In instances where projects address the stress to international waters from both POPs and PTS, they can be financed through contributions from both focal areas.

58. POPs are a threat to wildlife and biodiversity, and ultimately all POPs projects benefit the biodiversity focal area. The aquatic environment is both a sink for POPs and a major pathway for exposure to POPs. This translates to POPs resources being allocated to reducing releases to particular waterbodies or terrestrial ecosystems as a matter of priority,³⁷ thereby potentially contributing to biodiversity strategic programs 2 and 3.

59. With sustainable land management, the linkages are varied and concern all the strategic programs. Linkages could include interventions that reduce the reliance of local communities on POPs and other pesticides, or address the legacy of land degraded through historical pesticides abuse or obsolete pesticides spread over large areas, for example. Programs that minimize slash and burn practices will have a beneficial impact on emissions of unintentionally produced POPs.

60. The ozone layer depletion focal area addresses different but not unrelated halogenated compounds. Capacities built to manage ODS, for example regarding trade and licensing, can be harnessed to manage POPs and vice-versa. Specific technologies suitable for the destruction of CFCs are also suitable for the destruction of PCBs, for example.

61. Linkages with the climate change focal area are no less important. With respect to adaptation, for example, changing climatic factors have to be taken into account when devising an integrated vector control strategy as an alternative to spraying DDT. With respect to mitigation, the major source categories singled out as responsible for unintentional production of POPs are all energy-intensive processes, and thus there are potentially strong linkages with climate change strategic program 2³⁸.

62. Exploring and exploiting these linkages will lead to designing potentially synergistic interventions that generate multi-focal area benefits.

³⁷ In addition, and even when this is not explicitly acknowledged at the program level, typically wherever a priority setting exercise takes place, for example to decide which stockpile of obsolete POPs to remove as a priority, considerations take into account proximity of human settlement as well as proximity to aquatic systems and areas of biodiversity of significance.

³⁸ Note however that synergies between promotion of energy efficiency and reduction of releases of POPs by-products are neither always clear nor automatic.

ANNEX 6. OZONE LAYER DEPLETION FOCAL AREA STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

1. The GEF's goal in the ozone layer depletion focal area is to protect human health and the environment by assisting countries to phase out consumption and production, and prevent releases of ozone-depleting substances according to their commitments to Montreal Protocol phase-out schedules, while enabling energy efficient alternative technologies and practices. As a consequence of achieving this overall objective, the GEF will also contribute generally to capacity development for the sound management of chemicals.

I. BACKGROUND

2. Scientific concerns about the depleting effects of halocarbons on the ozone layer in the 1970s were followed by the discovery of the "hole" in the ozone layer over the Antarctic in the 1980s. The international community realized that increased UV-B radiation reaching the earth would pose risks to human health (e.g. skin cancers, eye cataracts, weakened immune systems) and the environment (affecting for example plant yields or fisheries). In response, countries negotiated and adopted the Vienna Convention for the Protection of the Ozone Layer in 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987.

3. As a result of the implementation of the Montreal Protocol, total consumption of ozone-depleting substances (ODS) has dropped by more than 90% in terms of their ozone depleting potential (ODP), as compared with the steady growth that would have occurred otherwise. This has prevented an estimated doubling of the UV-B radiation reaching the earth in the northern mid-latitudes by the year 2050. The GEF has contributed by facilitating a large drop in consumption and production of ODS in countries with economies in transition (CEITs). However, further efforts are required to ensure that the recovery of the ozone layer is not delayed.

Eligibility

4. The 1995 operational strategy provides that "although the GEF is not linked formally to the Montreal Protocol, the GEF operational strategy in ozone depletion is an operational response to the Montreal Protocol, its amendments, and adjustments." Therefore the GEF finances activities in eligible countries with economies in transition that are not eligible for funding under the Multilateral Fund of the Montreal Protocol. Further, operational policies for financing activities in the ozone focal area are consistent with those of the Multilateral Fund, to the extent that these are consistent with other GEF policies.

5. Countries must have ratified the Copenhagen amendment to the Montreal Protocol to be eligible for investments to phase out consumption of HCFCs.

II. STRATEGIC OBJECTIVE

6. The GEF's goal in the ozone layer depletion focal area is to protect human health and the environment by assisting countries to phase out consumption and production and prevent

releases of ODS according to their commitments to Montreal Protocol phase-out schedules, while enabling energy-efficient alternative technologies and practices. As a consequence of achieving this overall objective, the GEF will also contribute generally to capacity development for the sound management of chemicals.

7. The long term *impact* of GEF interventions is to contribute to the recovery of the ozone layer. The *indicator* for this recovery is a return to pre-1980 ozone levels. This global level indicator is being tracked by the Scientific Assessment Panel under the Montreal Protocol.

8. The *strategic objective* of the GEF under the ozone focal area, in the mid-term and spanning a number of replenishments, is to assist eligible partner countries to implement their obligations under the Montreal Protocol, including to phase out production and consumption of ODS (see Table 1).

Table 1: GEF Strategic Objective in the Ozone Depletion Focal Area

Strategic Objective	Expected impacts	Indicators
To phase out production and consumption of ODS	GEF-supported countries contribute to the reduction of the overall load of ODS in the stratosphere	GEF-supported countries are in compliance with their obligations under the Montreal Protocol

III. STRATEGIC FOCUS IN GEF-4

9. GEF-1 and GEF-2 efforts focused on supporting eligible countries with economies in transition (CEITs) to meet their obligations under annexes A and B of the Montreal Protocol: phasing out the use and production of chlorofluorocarbons (CFCs), halons, and carbon tetrachloride (CTC). GEF-3 efforts turned to supporting these countries in achieving the total phase-out for methyl bromide (MeBr), and the projects currently underway are expected to support eligible countries to meet their commitment in this regard. Moving ahead, activities under GEF-4 will be marked by the initiation of GEF work on phasing out hydrochlorofluorocarbons (HCFCs).

10. In helping to develop capacities in countries to implement the Montreal Protocol, such as through the development of trade and licensing systems to control the movement and prevent illegal trade in ODS, GEF-supported interventions have also contributed to the development of capacities that can benefit other chemicals-related agreements such as the Stockholm Convention, as well as the sound management of chemicals more generally. The GEF will further promote nesting ODS-related activities in a country's framework for the sound management of chemicals, as well as seeking synergies with the climate regime through gains in energy efficiency.

11. Looking towards GEF-5, GEF assistance could be required to support some eligible countries in meeting the 2015 HCFC 90% consumption phase-out step, as well as in addressing any new strengthening of obligations that the Parties might adopt, for example regarding HCFC production or previously exempted uses.

IV. STRATEGIC PROGRAM IN GEF-4

Strategic Program 1: Phasing out HCFCs and Strengthening of Capacities and Institutions

12. *Objectives:* For the period of GEF-4, the GEF will assist eligible countries in meeting their HCFC phase-out obligations under the Montreal Protocol³⁹, and strengthening capacities and institutions in those countries that still are faced with difficulties in meeting their reporting obligations.

13. *Outcomes:*

- (a) HCFCs are phased-out according to Montreal Protocol schedule, or faster, in GEF eligible countries; and
- (b) GEF-eligible countries meet their reporting obligations under the Montreal Protocol.

14. *Indicators:* Three indicators will be used to track progress in the Ozone focal area through the GEF-4 replenishment:

- (a) ODP adjusted tons of HCFCs phased-out from consumption (GEF-4 replenishment target: HCFCs: 50-70⁴⁰ ODP tons);
- (b) percentage reduction in HCFC consumption in the participating countries; and
- (c) percentage of GEF-funded countries that meet their reporting obligations under the Montreal Protocol.

15. *Scope:* The Montreal Protocol mandates a target of 65% consumption⁴¹ phase-out of HCFCs by 2010. Based on the data available at the time of writing, most countries in the CEIT region appear on target, in large part due to economic restructuring. In the countries that do require GEF support, operational considerations suggest that the projects should lead to complete consumption phase-out in these countries⁴², to the extent technologically possible and cost-effective when taking into account climate change benefits resulting from gains in energy efficiency. Preference will be given to low-GHG technologies and substitutes in order that the projects reduce overall the emissions of halogenated gases.

³⁹ At its May 2004 meeting, the Council agreed “to provide project preparation financing (PDFB) to South Africa to develop a project proposal for phasing out methyl bromide without prejudice to a later discussion and decision on financing of the project.” The Council noted that “this provision of financing to South Africa for purposes of the Montreal Protocol is being done on an exceptional basis, recognizing the historical situation of South Africa and [...] should not be viewed as establishing a precedent.” South Africa might therefore come forward with a request for funding for MeBr phase-out for decision by Council during GEF-4.

⁴⁰ Representing approximately 750-1000 metric tons of HCFCs.

⁴¹ Few of the GEF eligible countries have ratified the Beijing amendment that sets control measures for the production of HCFCs. Those that have are meeting their obligations to freeze their production at base level.

⁴² The country surveys supported by the Multilateral Fund in Art.5 countries and completed in March 2007 will provide valuable information to support the development of GEF projects in CEITs. These surveys will be completed by a GEF MSP to support the development of country strategies in CEITs.

16. Activities to enable compliance and reporting will also be supported, including awareness raising and training. Efforts to nest these activities within a country's framework for the sound management of chemicals will be promoted⁴³. This will also support GEF partner countries in ensuring that any residual amounts of CFCs used or produced are phased out according to expectations. Finally, in view of the potential benefit for other parties, the GEF will encourage dissemination of experiences and lessons learned and the promotion of regional cooperation between the GEF eligible Article 2 CEIT countries and their neighbouring Article 5 countries. The GEF will retain the flexibility to respond to policy evolutions under the Montreal protocol, for example regarding metered dose inhalers transition strategies or the destruction of unwanted ODS.

17. *Priority Countries:* On the basis of data available from the Ozone Secretariat, two countries in the region⁴⁴ would require assistance in meeting the target of 65% consumption phase-out by 2010. The countries of Central Asia are those principally targeted for institutional strengthening. In order to ensure sustainability of GEF-supported interventions, countries are expected to demonstrate a willingness to continue support for the institutions so strengthened. Countries must also demonstrate a willingness to adopt the policies necessary for long-term sustainability, including policies that prohibit the replacement of ozone-depleting substances by fluorinated greenhouse gases when technologically feasible.

18. *Types of Projects:* Projects to be implemented under this objective will include a mix of enabling-type activities, and projects largely oriented towards technical assistance and capacity building, with some investments. Taking into account countries' priorities under the RAF, the planned investment projects will seek to be integrated with energy efficiency interventions supported under the Climate Change focal area, thereby maximizing synergies towards ODS and GHG abatement benefits.

Table 2: Strategic Program for GEF-4 Financing under the Ozone Depletion Focal Area

Strategic Program	Expected outcomes	Indicators
Phasing out HCFCs and strengthening of capacities and institutions	HCFCs are phased-out according to Montreal Protocol schedule in GEF eligible countries	ODP adjusted tons of HCFCs phased out from consumption (50-70) Percentage reduction in HCFC consumption in the participating countries
	GEF eligible countries meet their reporting obligations under the Montreal Protocol	Percentage of GEF-funded countries that meet their reporting obligations under the Montreal Protocol (75 %)

⁴³ This constitutes an operational response to the amendment of the GEF Instrument (Article 1, Paragraph 3, as amended in 2004) that provides that "the agreed incremental costs of activities to achieve global environmental benefits concerning chemicals management as they relate to the [six] GEF focal areas shall be eligible for funding."

⁴⁴ Since the pertinent EU legislation imposes stricter obligations on EU member states than does the Montreal Protocol, no funding for EU member states is foreseen (Regulation (EC) No 2037/2000 on substances that deplete the ozone layer).

V. INTERLINKAGES WITH OTHER FOCAL AREAS

19. The ozone focal area has strong linkages with the POPs and the climate change focal areas. The POPs focal area addresses different but not unrelated halogenated compounds. Capacities built to manage ODS, for example regarding trade and licensing, can be harnessed to manage POPs and vice-versa. Specific technologies suitable for the destruction of CFCs are also suitable for the destruction of PCBs, for example.

20. As noted above, in investments to phase out HCFCs, preference will be given to low-GHG technologies and substitutes in order that the projects reduce overall the emissions of halogenated gases. Furthermore, projects will seek to be integrated with energy efficiency interventions supported under the climate change focal area in the participating countries, thereby maximizing synergies towards ODS and GHG abatement benefits.

21. In addition, linkages exist with programming under the climate change focal area, with the Energy-Efficient Building and Energy Efficiency in Industry strategic programs. Consistent with the GEF's approach to "chemical-proofing" its portfolio, and where it makes sense to do so, GEF projects in these strategic programs can support the phase-out of HCFCs used in chillers and refrigerators, and used in the food processing industry, respectively.

ANNEX 7. SUSTAINABLE FOREST MANAGEMENT FRAMEWORK STRATEGY FOR GEF-4

I. BACKGROUND

1. The CBD, the UNCCD and the UNFCCC all emphasize the importance of the conservation, sustainable use and management of forests in achieving their respective objectives.

2. The CBD work program on Forest Biological Diversity (COP decision VI/22) prioritized and elaborated the following program elements vis-à-vis forest conservation and sustainable forest management: a) conservation sustainable use and benefit sharing; b) institutional and socio-economic enabling environment; and c) knowledge, assessment and monitoring. Within these program elements, 14 goals and 27 objectives were identified. Guidance to the GEF based on this decision is provided in decision VI/17/c, which requests that the GEF provide financial resources “for country-driven projects focusing on the identified national priorities, as well as regional and international actions that assist the implementation of the expanded work program considering conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits from genetic resources in a balanced way, underscoring the importance of ensuring long-term conservation, sustainable use, and benefit-sharing of native forests.” In addition, in decision VII/11, paragraph 7, the COP noted that “sustainable forest management, as developed within the framework established by the Rio Forest Principles, can be considered as a means of applying the ecosystem approach to forests.”

3. The importance of social and economic factors is identified by the UNFCCC which emphasizes, among others, the need to have comprehensive policies and measures to address issues related to the sources, sinks, and reservoirs of greenhouse gases, taking into account different socio-economic contexts (UNFCCC, Article 4, paragraph 3). Programs to implement the objectives of the UNFCCC also recognize the relationship between climate change and deforestation. In fact, deforestation contributes more to climate change than any other form of land degradation, as it results in the release of carbon dioxide and the loss of sequestered carbon in biomass and soils. The UNFCCC is beginning to discuss the role of conservation and sustainable management of forests in carbon sequestration and carbon dioxide emissions.

4. Finally, the UNCCD notes that actions to combat desertification (or land degradation in arid-semi-arid and sub-humid areas) should be undertaken within the framework of an integrated approach that can contribute to sustainable development (UNCCD, Article 2, paragraph 1). The UNCCD focuses on combating forest degradation and mitigating “the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective actions at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in the affected areas” (CCD, Article 2, paragraph 1).

5. In addition to the high priority placed on forests by the three conventions for which GEF serves as “a” or “the” financial mechanism, the international community has engaged in numerous processes to advance sustainable forest management. Currently, the United Nations

Forum on Forests (UNFF) serves as an intergovernmental forum to foster common understanding and advance the dialogue on sustainable forest management.

6. The UNFF followed a five-year period (1995-2000) of forest policy dialogue facilitated by the Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF). In October, 2000, the Economic and Social Council of the United Nations in its resolution 2000/35 established the United Nations Forum on Forests (UNFF), a subsidiary body with the main objective to promote "... the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end..." based on the Rio Declaration, the Forest Principles, Chapter 11 of Agenda 21, and the outcome of the IPF/IFF Processes and other key milestones of international forest policy. The IPF/IFF processes produced more than 270 proposals for action towards sustainable forest management, known collectively as the IPF/IFF Proposals for Action. These proposals were the basis for the UNFF Multi-Year Programme of Work (MYPOW) and Plan of Action, and were discussed at annual UNFF sessions. Country- and organization-led initiatives also contribute to UNFF. At UNFF-7, held in April, 2007, a non-legally binding instrument on forests was agreed upon.

II. GEF'S STRATEGIC OBJECTIVES IN SUSTAINABLE FOREST MANAGEMENT

7. The importance that countries place on investing in sustainable forest management is evidenced throughout the GEF project portfolio by the many projects that incorporate all or most of the elements of sustainable forest management within the context of a single project intervention in forest ecosystems.⁴⁵ As noted in GEF/C.27/14, GEF has provided robust support to sustainable forest management amounting to more than 230 project interventions totaling US\$1.2 billion of GEF resources which leveraged an additional US\$ 3.45 billion since the inception of the GEF through December, 2005.⁴⁶ Within these country-driven projects, the GEF provides, per the Instrument, "new and additional grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits" in the focal areas of biodiversity, climate change, international waters, ozone depletion, land degradation and persistent organic pollutants. Thus, GEF's role, as one institution of many involved in sustainable forest management, is well prescribed.

8. GEF will continue to operate under the following operational considerations with regards to GEF support to forest management.

9. GEF financing will not be used:

- (a) to finance logging operations in primary forests;
- (b) for the conversion of forests to alternative land use;

⁴⁵ Sustainable forest management includes: conservation and management of forest biodiversity; management of forests to reduce risks and disturbances such as wildfires, pollution, invasive alien species, pests and disease; production of wood and non-wood forest products by forests and trees outside forests; safeguarding the role that forests and trees outside forests play in moderating soil, hydrological and aquatic systems; and the legal, policy and institutional framework required to support sustainable forest management.

⁴⁶ GEF Activities Related to Forests, GEF/C.27/14, October 12, 2005.

- (c) to meet sustainable baseline costs of pursuing sustainable forest management;
- (d) to meet the cost of forest certification schemes;
- (e) to improve timber harvesting methods to meet sustainable forest management certification criteria;
- (f) for reforestation or restoration of habitat following logging operations;
- (g) to finance the costs of reduced impact logging to secure SFM;
- (h) to finance the costs of commercial, industrial timber plantations and tree-farming systems; and
- (i) to create carbon credits for future carbon trading.

10. GEF financing for projects associated with harvesting wood and non-wood forest products are used:

- (a) in conformity with GEF's objectives of conservation, sustainable use and benefit sharing for sustainable forest management and CBD guidance on the same;
- (b) in conformity with the incremental cost policy (GEF support to forest management activities could be additional, substitutional or of both types, and each of these activities must concur with all the guiding principles of the GEF operational strategy);
- (c) in conformity with the public involvement policies (where relocation or resettlement is anticipated this should be done in a transparent, participatory and voluntary basis);
- (d) for small, pilot, local community-based demonstration projects but not for large commercial scale interventions; and
- (e) to support alternative livelihoods in production forests to take the pressure off biodiversity in protected areas, but only where i) production forests are part of the national baseline and are being practiced in accordance with other criteria that incorporate environmental sustainability criteria (e.g. Forest Stewardship Council etc.); and ii) where the production forestry and the alternative livelihood under this scheme do not undermine the biodiversity targeted for conservation in the protected areas concerned.

11. During GEF-4, the GEF will continue to support the elements of sustainable forest management that are eligible for GEF financing through the existing focal area strategic programs. The GEF framework strategy identifies how GEF's focal area strategic programs contribute to the sustainable management of forests to primarily achieve global environmental benefits but also local livelihood benefits. The framework strategy also identifies one potential

new strategic program that is cross-cutting in nature (biodiversity-climate change-land degradation) entitled “Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO₂ Emissions”. In order to ensure that projects in the climate change focal area promoting the production of biofuels from biomass feedstocks do not negatively impact on the goals of the other GEF focal areas, a targeted research project is also proposed to identify and develop safeguards for sustainable biomass production.

Table 1. Sustainable Forest Management Strategic Objectives

Goal of GEF Support to Sustainable Forest Management:		
Sustainable management of forests to achieve global benefits		
Strategic Objective and Expected Impact	Supported Through Existing Focal Area Strategic Program	Supported Through New Strategic Program
SO-1: Conservation of Globally-significant Forest Biodiversity Forest biodiversity conserved and sustainably used in protected area systems	Biodiversity: “Sustainable Financing for Protected Area Systems at the National Level”	Biodiversity/Climate Change/Land Degradation: “Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO ₂ Emissions”
	Biodiversity: “Strengthening Terrestrial Protected Area Networks”	
SO-2: Sustainable management and use of forest resources Production forests sustainably managed	Biodiversity: “Strengthening the Policy and Regulatory Framework for Mainstreaming Biodiversity”	Biodiversity/Climate Change/Land Degradation: “Promoting Sustainable Energy Production from Biomass”
	Biodiversity “Prevention, Control and Management of Invasive Alien Species”	
	Biodiversity: “Fostering Markets for Biodiversity Goods and Services”	
	Land Degradation: “Sustainable Forest Management in Production Landscapes”	
	Climate Change: “Promoting Sustainable Energy Production from Biomass”	

III. STRATEGIC FOCUS FOR SUSTAINABLE FOREST MANAGEMENT IN GEF-4

A. Strategic Objective One: To Protect Globally-significant Forest Biodiversity

Biodiversity Strategic Program 1: Sustainable Financing of Protected Area Systems at the National Level

12. GEF-supported interventions under this strategic program will use a variety of tools and revenue mechanisms to contribute to sustainable financing of protected areas, including payments for environmental services generated by forest protected areas.

Biodiversity Strategic Program 2: Strengthening Terrestrial Protected Area Networks

13. Through this strategic program, countries will be able to include under-represented forest ecosystems in the protected area system. GEF's focus will remain on the sustainability of the system, and thus interventions that seek to incorporate a new forest protected area into the system will need to demonstrate that sufficient resources are reallocated to the management of the new protected area. This will help ensure that the additional protected area receives the same level of management inputs as other protected areas in the system enjoy.

Biodiversity/Climate Change/Land Degradation Strategic Program (new): Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO₂ Emissions

14. Forests provide a range of environmental services and related global environmental benefits whose value is not wholly reflected in the marketplace, such as carbon storage and biodiversity. This market failure contributes to forest degradation and, in the end, to wasteful forest destruction.

15. There are many proponents of developing incentive-based instruments to protect forests as a carbon stock at a scale sufficient to have a meaningful impact on climate stability and in turn generate biodiversity benefits. They propose that by according a real cash value to the carbon stored in standing forest, and implicitly to biodiversity conservation and the other environmental services forests provide, a financial alternative would be created to counter the unsustainable forest practices that produce only short-term financial gain (e.g. illegal logging or transformation into pasture or croplands), thus counterbalancing the forces of forest destruction.

16. However, the GEF will not engage in this debate through this strategic program unless guidance is provided by the COP of the UNFCCC. Rather, through this proposed new strategic program, GEF will limit investments to developing methodologies and supporting pilot demonstrations on how to reliably measure carbon stored in standing forest and to enable countries to apply the methodology. An agreed-upon methodology would also allow future GEF project proponents to quantify in a reliable and standardized way carbon as a global environmental benefit in forest-related projects.

B. Strategic Objective Two: To Promote Sustainable Management and Use of Forest Resources

Biodiversity Strategic Program 4: Strengthening the Policy and Regulatory Framework for Mainstreaming Biodiversity

17. The incorporation of biodiversity conservation into broader forest policy and regulatory frameworks is not taking place in many GEF-eligible countries due to a number of constraining factors, some common to conservation generally (poor governance, weak capacity, lack of scientific knowledge) and others specific to the challenge of mainstreaming biodiversity into productive sectors (lack of incentives, inadequate valuation data on biodiversity, etc.). Through this strategic program, GEF will support projects that remove critical knowledge barriers, develop institutional capacities, and establish the forest policies, legislative and regulatory frameworks required to integrate biodiversity conservation objectives into the forest sector.

Biodiversity Strategic Program 5: Fostering Markets for Biodiversity Goods and Services

18. The GEF will build on experience gained in GEF-3 and continue to support the design and implementation of payment for environmental service (PES) schemes to compensate forest resource managers for off-site ecological benefits associated with biodiversity conservation-compatible land-use practices. This would include support to identify where potential opportunities are for PES schemes that include private sector actors on the demand side.

19. GEF will build on previous experience with certification and support: a) improvement of existing forest certification standards and development of new standards to achieve global environmental objectives (this could include targeted research to improve the indicators and criteria used in certification systems with regards to measuring the components of biodiversity in forests certified as being managed sustainably); b) increasing country capacity to scale up and increase the sustainability of certification systems; c) establishment of sustainable training systems for farmers and certifiers; d) development of traceability systems and strengthening of supply chain management linking end products and services to their source; e) strengthening market outreach to enhance private sector and consumer awareness of certified products and hence increase demand for higher environmental and social standards; and f) facilitating access to finance for producers, cooperatives and companies working either with or towards certified products and services.

Biodiversity Strategic Program 7: Prevention, Control and Management of Invasive Alien Species

20. GEF will support integrated cross-sectoral approaches required to implement cost-effective strategies to prevent, control and manage invasive alien species in forest ecosystems. During GEF-4, support will be provided to: a) strengthening the enabling policy and institutional environment for cross-sectoral prevention and management of invasions; b) implementing communication strategies that emphasize a pathways and ecosystem approach to managing invasions; c) developing and implementing appropriate risk analysis procedures for non-native species importations; d) early detection and rapid response procedures for management of nascent infestations; and e) managing priority alien species invasions.

Climate Change Strategic Program 4: Promoting Sustainable Energy Production from Biomass

21. In the past, GEF has supported projects that utilize biomass wastes to generate heat and electricity for modern energy purposes. Only a handful of projects proposing planting of trees or other dedicated biomass feedstocks were ever approved. However, with the increase in pressure to increase the fraction of renewable biomass energy in countries' energy mixes as a response to both the challenges of climate change and the rise in petroleum prices, the GEF will begin to more actively support modernized biomass using dedicated biomass feedstock. This is a new strategic program being proposed for GEF-4.

22. In order to do this successfully, attention must be paid to the sustainability of the production of biomass feedstocks. It is anticipated that the biomass to be used in these projects will be grown on formerly degraded forest or agricultural land and will not result in the

conversion of primary and other forests to alternative land uses such as biomass production that applies unsustainable techniques. Safeguards will be needed to ensure that biomass supplies are derived from sustainably managed cropping system in all aspects. Only through this kind of approach could biomass energy be certified as “sustainable”, much as other forest products can. International efforts have begun to focus on the process of certifying the sustainability of biomass production and biofuel supplies.

Climate Change / Biodiversity /Land Degradation Strategic Program (new): Promoting Sustainable Energy Production from Biomass

23. As part of this new strategic program, the GEF will support a targeted research project to help ensure the environmental sustainability of the “Sustainable Energy from Biomass” portfolio. This targeted research effort will develop an appropriate safeguards policy to ensure that “energy from biomass” projects do not negatively impact the objectives of the other GEF focal areas and that the biomass production itself is environmentally sustainable. The outputs of the targeted research will likely contribute to the ongoing work at the global level to develop certification standards for sustainable biomass production.

Land Degradation Strategic Program 2: “Supporting Sustainable Forest Management in Production Landscapes”

24. This program will support landscape approaches to the management of woodlands, humid forest margins and reducing forest fragmentation. During GEF-4, support will be provided to: a) strengthen the enabling policy and institutional environment for managing forest resources in the wider landscape; b) define strategies to avoid the degradation of woodlands, forest margins and further forest fragmentation mainly caused by expanding agricultural activities and unsustainable harvesting of fuel wood; and c) replicate successful practices in SFM in the wider landscape to restore the integrity of forest ecosystems. Priority is given *savanna/cerrado, miombo* ecosystems, forest fragments and humid forest margins. In this program, issues related to climate change and biodiversity in forest and woodland ecosystems may also feature. Regional priorities are the margins and bugger zones of the Congo and Amazon Basins, South-East Asia, Central American dry and montane forests, and the South American *Chaco*.

GEF Policies to Support the Goal of the Framework Strategy

26. The GEF proposes that for all GEF projects in GEF-4 that allowances be made to measure carbon sequestration achieved through these investments.

27. In addition, one output of the targeted research project identified above will be a safeguards policy that will be applied to all climate change biomass projects for energy to ensure that no unintended impacts are generated to the detriment of the objectives being pursued through other GEF focal areas.

Table 2: Summary of Strategic Programs for SFM in GEF-4

Strategic Programs for GEF-4	Expected Outcomes	Indicators
Sustainable Financing of Protected Area Systems at National Level	<ul style="list-style-type: none"> • Forest protected areas contribute to increased system-wide revenue and diversification of revenue streams to meet total expenditures required to meet management objectives 	<ul style="list-style-type: none"> • Total revenue and diversification in revenue streams generated by forest protected areas
Strengthened Terrestrial Protected Area Networks	<ul style="list-style-type: none"> • Improved coverage of under-represented forest ecosystems areas as part of national protected area systems • Improved management of forest protected areas 	<ul style="list-style-type: none"> • Forest ecosystem coverage in national protected area systems • Protected area management effectiveness as measure by individual protected area scorecards
Biodiversity/Climate Change/Land Degradation Strategic Program (new): Forest Conservation as a Means to Protect Carbon Stocks and Avoid CO ₂ Emissions	<ul style="list-style-type: none"> • Improved knowledge and understanding of the feasibility of using a Payment for Environmental Services approaches focused on carbon to conserve forests 	<ul style="list-style-type: none"> • Methodologies developed for carbon measurement • GEF forest-related projects quantify carbon benefits
Strengthening the Policy and Regulatory Framework	<ul style="list-style-type: none"> • Policy and regulatory frameworks governing the forest sectors incorporates measures to conserve biodiversity 	<ul style="list-style-type: none"> • The degree to which forest polices and regulations include measures to conserve biodiversity as measured by GEF tracking tools
Fostering Markets for Biodiversity Goods and Services	<ul style="list-style-type: none"> • Global certification systems for forest products include technically rigorous biodiversity standards 	<ul style="list-style-type: none"> • Published certification standards for biodiversity friendly forest products
Sustainable Energy from Biomass	<ul style="list-style-type: none"> • Adoption of modern and sustainable practices in biomass production, conversion and use 	<ul style="list-style-type: none"> • Energy generated CO₂ avoided thru energy use and CO₂ sequestered thru carbon fixation

Strategic Programs for GEF-4	Expected Outcomes	Indicators
Sustainable Forest Management in Production Landscapes	<ul style="list-style-type: none"> • Forest resources in humid forest margins, forest fragments and woodland resources in semi-arid and sub-humid ecosystems are managed sustainably as part of the wider landscape 	<p><u>In partner countries:</u></p> <ul style="list-style-type: none"> • Each partner country adopts a new harmonized policy for SFM and/or a national land use policy • % of extension programs offered by key institutions reflects ecosystem principles and concepts in wider landscape management, including forest and woodland resources • % increase in allocation of resources to sector ministries dealing with forest and woodland resources • % increase in net and <i>per caput</i> access of forest and woodland dependent land users to rural credit facilities and/or revolving funds • % increase in area where SFM best practices are applied

ANNEX 8. SOUND CHEMICALS MANAGEMENT FRAMEWORK STRATEGY AND STRATEGIC PROGRAMMING FOR GEF-4

1. The GEF's goal in supporting sound chemicals management across its focal areas is to contribute to the implementation of Agenda 21 and the WSSD Johannesburg Plan of Implementation, through activities that promote the sound management of chemicals and bring global environmental benefits in the GEF focal areas, in order to protect human health and the environment.

I. BACKGROUND

2. The realization of the risks to human health and the environment posed by the unsafe production and use of chemicals has led nations to indicate their support for sound chemicals management globally, as expressed via various regional and international agreements on chemicals. These include the Stockholm Convention and the Montreal Protocol (for both of which the GEF is a financial mechanism), as well as the Basel Convention, the Rotterdam Convention, the Strategic Approach to International Chemicals Management, the Kyoto Protocol, a variety of marine conventions focused on protection of the environment from toxic and hazardous wastes, and International Labour Organization (ILO) chemicals conventions pertaining to worker safety.

3. In response, the GEF Assembly in 2002 adopted persistent organic pollutants as a new focal area to facilitate the implementation of the Stockholm Convention, and amended the GEF Instrument (Article 1, Paragraph 3) to provide that "the agreed incremental costs of activities to achieve global environmental benefits concerning chemicals management as they relate to the [six] GEF focal areas shall be eligible for funding."

II. STRATEGIC OBJECTIVE

4. The *strategic objective* of the GEF in addressing the cross-cutting issue of sound chemicals management is to promote sound management of chemicals practices in all relevant aspects of GEF programs, for the protection of human health and the global environment (see Table 1). This strategic objective is pursued through two strategic programs as described below⁴⁷.

⁴⁷ This paper was drafted taking into account the current mandate for chemicals-related activities in the GEF, and relevant past Council discussions. Therefore the paper, in attempting to operationalize the revised paragraph 3 of the GEF Instrument, offers a limited interpretation of "activities to achieve global environmental benefits concerning chemicals management as they relate to the [...] focal areas." The chemicals management activities that are addressed in this paper are those that are directly related to the achievement of global environmental benefits in a particular project in one of the six focal areas.

An alternative approach that was discussed by the TAG would have allowed support to sound management of chemicals (SMC) activities directly and for themselves where they are deemed to bring global environmental benefits in the focal areas in the long run. The TAG discussed proposing a program that would support, on a pilot basis, SMC projects that generate global environmental benefits. Such a program could have a dedicated, yet limited, budgetary envelope and be independently evaluated. It could help GEF agencies, project proponents, etc, gain experience in the design and implementation of SMC projects that bring global environmental benefits. The

Table 1: GEF Strategic Objective in the Cross-cutting Issue of Sound Chemicals Management

Strategic Objective	Expected impact	Indicator
To promote sound management of chemicals for the protection of human health and the global environment	Sound management of chemicals principles and practices are reflected in the development and implementation of projects in all GEF focal areas	Percentage of GEF projects that promote sound chemicals management practices

III. STRATEGIC FOCUS IN GEF-4

5. Until present, opportunities to support sound chemicals management in the GEF focal areas, even when they were taken advantage of, were most often not apparent in project documentation or reporting. During GEF-4, the GEF will support improved management of chemicals, taking into account their whole life-cycle, as a cross-cutting issue that deserves global attention. Chemicals are now produced throughout the world and may be spread globally through international trade and through emissions to the atmosphere and the oceans, and may aggravate global environmental concerns, such as biodiversity, land degradation, climate change and freshwater scarcity. In supporting improved environmental management of chemicals as a cross-cutting issue, the GEF will contribute to supporting countries in their implementation of the above-mentioned agreements.

6. Experience gained in implementing this strategy will benefit the GEF (Council, agencies, Secretariat), partner countries, and other stakeholders, in particular through exploring and clarifying the avenues available for supporting sound chemicals management in the GEF. This experience will be assessed and will allow the further development of the strategy to support chemicals management activities during GEF-5 and beyond.

IV. STRATEGIC PROGRAMS IN GEF-4

7. Two strategic programs are proposed for implementation under GEF-4, and are described below and in Table 2. These strategic programs do not have budgetary allocations since the proposed activities are expected to be covered as part of the regular project cycle for projects in any one of the existing GEF focal areas.

Strategic Program 1: Integrating Sound Chemicals Management in GEF Projects

8. *Objective:* Sound chemicals management practices are integrated in the projects in the focal areas of biodiversity, climate change, international waters, and land degradation.

program could also provide “seed funding” to develop and facilitate “chemicals proofing” as defined further in this paper. Activities supported could include projects to address: mercury use in products; the implementation of the globally harmonised system of classification and labelling of chemicals (GHS); or the development of pollutant release and transfer registers (PRTRs).

9. *Outcomes:*

- (a) activities already incorporated in project design that are of a chemicals management nature or that bring co-benefits are identified and can be reported on;
- (b) chemicals management activities are promoted that were not planned initially but that should take place less the project's ability to deliver global environmental benefits is compromised;
- (c) possible negative impacts of a GEF intervention from a chemicals standpoint are identified and avoided, if possible, or mitigated;
- (d) opportunities to generate additional benefits are identified that can be pursued for financing from the GEF or from co-financing sources, as appropriate; and
- (e) the GEF is in a position to report on its contribution to sound chemicals management and to inform policy discussions internationally.

10. *Indicators:*

- (a) percentage of projects with enhanced reporting or modification of design, following chemicals proofing; and
- (b) at the end of the replenishment period, reports are available to the GEF Council and other stakeholders, including the International Conference on Chemicals Management, on the GEF's contribution to sound chemicals management in recipient countries.

11. *Scope:* This program addresses many but not all projects in all focal areas. The program will be operationalized through a "chemicals proofing" exercise whereby those projects that are of a type where the integration of SMC practices would appear most relevant will be assessed during project preparation and appraisal to establish whether appropriate SMC practices are indeed taken advantage of. Chemicals proofing will be conducted with a view to covering the various facets described below.

12. The challenge will be first to identify what types of projects are the most likely candidates for this effort, and what good practices should be promoted in which sectors, and then to raise awareness about these opportunities with project proponents in GEF-eligible countries and GEF agencies. This will be facilitated through the conduct and dissemination of case studies and the development of guidelines for specific types of projects/sectors in the different focal areas, in order to target those projects with the strongest prospect for co-benefits (for example industrial energy efficiency projects in climate change, agroforestry projects in biodiversity, or sustainable land management projects).

13. In addition, relevant project proposals and relevant project completion reports will highlight the specific contributions that are additionally being made to sound chemicals

management so that these can be reported on and shared, so that good practices can be promoted in future projects. This will be facilitated by the chemicals proofing exercise described above.

14. The implementation of this program has a number of facets:
 - (a) Activities already incorporated in project design: for example promotion of integrated pest management in sustainable land management projects that would take place anyway, but would go unreported.
 - (b) Highlighting chemicals management-related activities that need to take place, for example evaluating the releases of contaminants to protected areas, in particular, but not limited to, marine protected areas.
 - (c) Highlighting and avoiding, if possible, or mitigating potential negative impacts of a GEF project; for example an international waters project seeking to phase out a particular use for a persistent toxic substance should ensure that it is substituted by less harmful chemicals, particularly in small and medium enterprises.
 - (d) Opportunities for additional benefits can be identified, for example refrigerants in building energy efficiency programs, pursuing the phase-out of leaded gasoline in sustainable transport programs, or reducing mercury releases through measures to release greenhouse gas emissions from coal combustion.

Strategic Program 2: Articulating the Chemicals-related Interventions Supported by the GEF Within Countries' Frameworks for Chemicals Management

15. *Objective:* GEF interventions to support POPs elimination, ODS phase-out and PTS management are sustainable because they build upon and strengthen the general capacity of recipient countries for sound chemicals management.
16. *Outcome:* GEF capacity development interventions to support POPs elimination, ODS phase-out and PTS management build upon and strengthen the general capacity of recipient countries for sound chemicals management.
17. *Indicator:* Percentage of capacity development projects in the POPs, ODS and IW focal areas that also contribute to sound chemicals management more generally.
18. *Scope:* Activities⁴⁸ should be designed to build capacity that can be cross-cutting, or have synergies, with management of other toxic and hazardous chemicals, including development of policy and legislative frameworks, inventory development, and environmentally sound management of wastes. The POPs and ozone focal areas strategies describe how capacity development interventions will be nested within a country's framework for the sound management of chemicals, and how those countries that lag the farthest behind will also be

⁴⁸ For example, a large number of developing countries do not have adequate legislation for industrial chemicals. A project aimed at developing legislation consistent with the Stockholm Convention and the POPs focal area would be designed to also address other toxic and hazardous chemicals in a comprehensive legislative framework - see GEF information paper to SAICM PrepCom. 2 meeting, also submitted for information to Stockholm COP-1.

V. INTERLINKAGES WITH OTHER FOCAL AREAS

19. The following highlights some opportunities to integrate the sound management of chemicals into each of the GEF focal areas.

20. With greater emphasis in the biodiversity focal area on mainstreaming biodiversity in production landscapes and seascapes (SO₂) come greater opportunities for promoting sound chemicals management. One component of the GEF's biodiversity strategy during GEF-4 is to promote the mainstreaming of biodiversity considerations in three priority sectors: agriculture, fisheries, and forestry. By way of example, agro-forestry projects addressing mainstreaming of biodiversity are concerned with reducing the inputs of chemicals in the systems that they seek to protect. For example, projects dealing with shade-grown coffee or cocoa promote integrated pest management (IPM) and forbid the use of prohibited chemicals. Forest certification schemes can prohibit the use of the most toxic, persistent and bio-accumulative chemicals.

21. The relationship of the climate change focal area to the cross cutting issue of chemicals management is multi-faceted. First, there are the incidental health and environmental benefits resulting from GEF interventions – whether energy efficiency, renewable energy, or sustainable transportation - that displace or reduce the combustion of fossil fuels. These incidental benefits may stem from significant reductions in mercury, SO₂, NO_x, polycyclic aromatic hydrocarbons, etc., that would otherwise have been emitted. Second, a number of energy efficiency interventions address sectors that potentially release relatively large amounts of chemicals into the environment, e.g., steel, chemicals manufacturing, cement, pulp and paper, and textiles. Not only are these GEF-supported interventions designed to increase energy efficiency in these sectors, they also typically accompany a cleaner production approach that leads to reducing inputs including water, and reducing releases of toxic chemicals in emissions and effluents. Finally, there will be cases where there might be trade-offs between reducing greenhouse gas emissions and releases of chemicals in the environment. These trade-offs will be considered and assessed as part of project preparation (e.g. in deciding whether or not to support biofuels, the GEF will take into account the risks of environmental degradation resulting from possible increased use of agrochemicals).

22. With respect to adaptation to climate change, chemicals management considerations come into play at various levels. An example of a possible intervention to adapt to climatic change is the need to control “new” pests, including vectors for diseases (e.g. malaria), due to the extension of the habitats of these pests. Another example is flood control management to protect a particular coastal zone and affected community, where the risk of chemical spills would have to be addressed in developing contingency plans for natural disasters.

23. In the international waters focal area, a number of past and planned interventions are directly concerned with chemicals management activities, or with the consequences of chemicals mismanagement, consistent with the guidance in the GEF Operational Strategy. In the context of reducing land-based sources of pollution, GEF projects target specific sites of generation, or sectors, such as pesticides misuse in tropical agriculture, toxic contaminants from mining, or industrial pollution discharges. Projects that address persistent toxic substances beyond the

twelve POPs initially addressed by the Stockholm Convention have been supported, in particular to address mercury.

24. In the land degradation focal area, a number of GEF supported interventions will target the agriculture sector where one of the recognized drivers for terrestrial ecosystem degradation is the mismanagement and overuse of fertilizers and pesticides for short-term economic gain. Projects targeting the agricultural sector are expected to include components that promote sustainable land management policies and practices including the reduction of synthetic pesticide and fertilizer use. Both strategic objectives of the land degradation focal area for GEF-4 offer opportunities to promote and/or further research farming practices and systems that emphasize natural biological processes that can reduce the use of costly chemical fertilizers, pest controls and other synthetic farm inputs.

25. The POPs and the ozone depletion substances focal areas support chemicals management, although restricted to specific subsets of chemicals. The challenge is not to build silos, but to build upon and expand the capacities existing in recipient countries. In the POPs focal area in particular, GEF interventions will be nested within the framework of a country's capacity for sound chemicals management. Proposals to implement the Stockholm Convention can be expected in many countries to include and build on foundational capacities aimed at completing the basic governance framework (policy, law, and institutional capabilities) for chemicals within the country. This will be especially important for countries that lag the farthest behind at putting in place the constituent elements of a governance framework for chemicals, including the Stockholm Convention, and is expected to concern mostly LDCs and SIDS.