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Agenda Item 11

SYSTEM FOR A TRANSPARENT ALLOCATION OF RESOURCES (STAR): OPTIONS AND SCENARIOS

(also presented for discussion at the GEF Council ad hoc committee meeting
16 October, 2009)

Draft Council Decision

The Council having reviewed document GEF/G.36/6, *System for a Transparent Allocation of Resources (STAR): Options and Scenarios*, recommends that the GEF Secretariat proceed with STAR [option 1/option 2] in GEF-5 and provide further details on the implementation of [option 1/option 2] at the next Council meeting.

The Council approves the following design features:

a) the stated criteria proposed for access to country allocations;

b) flexibility to allow countries to spend across focal areas, provided that at least 90% of resources is guaranteed to be programmed under each focal area for which it was originally intended;

c) the level of focal area set-asides (FAS) outside the national STAR allocations to be set at 20 percent under the $5B and $6.5B scenario or 15 percent under the $9B scenario. This set-aside will be used to finance regional and global projects, enabling activities (for BD, CC, and POPs if applicable), and sustainable forest management (for BD, CC, and LD where applicable);

d) separate from the focal area set-asides, the other programs and activities that will be funded outside of the STAR allocation process include:

   i. Agency fees
   ii. Corporate budgets of the Secretariat, the Trustee, Evaluation Office, and STAP
   iii. Small Grants Program
   iv. Country Support Program, National Dialogue Initiative, and Sub-Regional Consultations
   v. International Waters
   vi. Ozone Layer Depletion
   vii. Sound Chemicals Management
   viii. Voluntary National Business Plans
   ix. GEF Earth Fund
   x. Support through Non-grant Instruments;

e) the $2 million floor for CC, a $1.5 million floor for BD, and a $0.5 million floor for LD and POPs, if applicable; the same ceiling levels as in GEF-4, with 15 percent for CC and 10 percent for all other focal areas; and

f) the methodology for the calculation of country allocations, including the revised Global Performance Index, the revised Global Benefits Indices for each focal area, and the GDP Index.

EXECUTIVE SUMMARY

1. In November 2008, the Evaluation Office presented the *Mid-term Review of the Resource Allocation Framework* (MTR). [1] As part of its decision on the mid-term review, the Council requested the GEF Secretariat, in collaboration with the GEF Agencies and STAP, to improve the design of the resource allocation system and indices for GEF-5, taking into account the experience with the RAF and the recommendations of the mid-term review on future issues.

2. The latest version of the STAR model, as presented in this paper, takes into consideration the latest Council recommendations from the June 2009 Council meeting, the results from the mid-term review, input from STAP,[2] and comments from the GEF Agencies. The focus of this paper is to improve the structure of the STAR design, refine indicators for each focal area, and provide Council with clear options so that decisions can be made on key design features.

3. The overall objective of an allocation system for the GEF has not changed since it was first introduced through the policy recommendations for the fourth replenishment, as "…a system for allocating resources to countries in a transparent and consistent manner based on global environmental priorities and country capacity, policies and practices relevant to successful implementation of GEF projects" (GEF/C.27/Inf.8/Rev.1, 2005). The Secretariat has followed the findings of the MTR and designed the STAR to ensure greater functionality, transparency, and structural simplicity of the model.

4. To achieve this goal, in the current proposal for the STAR, the Secretariat is presenting: (1) clear rules on which countries will receive access to a STAR allocation, (2) proposals on the level of exclusions and how they will be used, (3) a proposal for including a premium for the poorest countries, (4) two options for allocating resources, (5) refined indicators for the Global Benefits Indices, and (6) a revised Global Performance Index.

5. Based on Council guidance, two allocation options were developed further for this paper. The first, as in GEF-4, is for a STAR allocation system that covers only two focal areas, biodiversity and climate change (Option 1). The second is for a STAR allocation system that covers four focal areas, biodiversity, climate change, land degradation, and persistent organic pollutants (Option 2). Both systems have been designed to utilize the same methodology and the same Global Performance Index, Global Benefit Indices and GDP Index.

[1] GEF/ME/C.34/2, November 2008.
[2] The following webpage lists the advice that STAP has provided to the GEF since the production by the Evaluation Office of the Mid-Term Review of the RAF: http://stapgef.unep.org/resources/RAF/Advice.

Table of Contents

Executive Summary iii

Introduction 1

Background 1
STAR GEF-5 2

Access to Resources 3

Structure of System 4

Options for Allocation 4
Flexibility of Allocations for Countries under a Certain Threshold 5
Focal Area Set-asides 5
Floors and Ceilings 7
GEF Performance Index 8
A Premium to Take Into Account Country Capacity and Vulnerability: GDP-based Index 10
GEF Benefits Indices 10

GEF-5 STAR Simulations 13

Annex 1: List of Countries with Access to STAR Resources 14

Annex 2: GEF Performance Index (GPI) 18

Annex 3: GDP-based Index (GDPI) 20

Annex 4: GEF Benefits Index for Climate Change (GBI_{cc}) 22

Annex 5: GEF Benefits Index for Persistent Organic Pollutants (GBI_{BD}) 24

Annex 6: GEF Benefits Index for Persistent Organic Pollutants (GBI_{LD}) 29

Annex 7: GEF Benefits Index for Persistent Organic Pollutants (GBI_{POPs}) 31

Annex 8: GEF-5 STAR Simulations 34

INTRODUCTION

Background

1. In November 2008, the Evaluation Office presented the *Mid-term Review*[3] *of the Resource Allocation Framework* (RAF). As part of its decision on the mid-term review, Council requested the GEF Secretariat, in collaboration with the GEF Agencies and STAP, to improve the design of the resource allocation system and indices for GEF-5, taking into account the experience with the RAF and the recommendations of the mid-term review on future issues.

2. At the first GEF-5 replenishment meeting in March 2009, the GEF Secretariat presented a draft of various scenarios and options for a performance-based allocation (PBA) system incorporating recommendations from the mid-term review. The draft was presented to an ad-hoc committee of Council members that met in March 19, 2009. With further guidance from the ad-hoc committee, a paper was presented to the June 2009 Council meeting, *Revised Scenarios and Options for a "System for Transparent Allocation of Resources" in GEF-5* (GEF/35.4/Rev.1). After having reviewed the document, the Council provided several recommendations (see side text box).

3. In addition to the Council decision, Council gave guidance on a number of key issues for how the Secretariat should move forward in building the System for Transparent Allocation of Resources (STAR) model for GEF-5. These include the following:

i. *Level of replenishment.* Most Council members noted that the level of the replenishment would be a key factor in the design of the resource allocation system and that this factor should be highlighted when presenting the different options for resource allocation.

ii. *Programming targets.* The need for a mechanism to ensure that overall programming targets for the different focal areas would be broadly met was generally acknowledged.

iii. *International waters should remain outside the*

June 2009 Council Decision

The Council, having reviewed document, GEF/35.4/Rev.1, *Revised Scenarios and Options for a "System for Transparent Allocation of Resources" in GEF-5*, recommended that the GEF Secretariat, in a consultative and participative manner, in line with the mandate of the GEF in helping countries generate global environmental benefits and taking into account information on the size of the GEF-5 replenishment:

(a) Prepare additional documentation on eligibility, taking into consideration the following issues: active and inactive countries, UN Sanctions, and country status with respect to the relevant Conventions and the GEF Instrument;

(b) Continue developing and refining Option A, including possible incorporation of elements proposed in Option B;

(c) Prepare another option with a composite allocation per country, if feasible, that:

- does not include International Waters, which would remain outside the scope of the STAR;
- would seek to include biodiversity, climate change mitigation, land degradation, and chemicals;
- provides flexibility in programming among the different GEF focal areas for countries with allocations below a certain threshold, particularly LDCs and SIDS;
- includes mechanisms that help to ensure that overall programming targets for the different focal areas are met for countries with allocations higher than the above-mentioned threshold;
- supports countries to implement the Conventions;

(d) Prepare a new revision of the GBI for biodiversity and make suggestions for improving, the GBI in other focal areas and other allocation indicators;

(e) Further develop and revise the GEF Performance Index; and

(f) Convene another meeting of the ad hoc committee of the Council before the next Council Meeting.

[3] GEF/ME/C.34/2, November 2008. The full report *Mid-term Review of the Resource Allocation Framework*, Evaluation Report 47, Global Environment Facility Evaluation Office, May 2009, is referred to throughout this paper as "MTR".

scope of the STAR. Council members had different views about adding additional focal areas to the resource allocation framework, but all recognized the challenge in developing a simple set of country indicators that would adequately reflect the scope and mission of international waters. As highlighted in the mid-term review, individual country allocations do not adequately address transboundary global environmental problems. Since international waters addresses transboundary water issues that can only be resolved by joint action from all the countries sharing a particular water body, Council agreed that this focal area should remain outside of the STAR for GEF-5.

iv. *Set-asides outside of STAR.* While there was general agreement to exclude international waters from the STAR, many Council members requested clearer guidelines for what other *categories* would be included under set-asides and how these resources would be used. There was also broad agreement that the level of set-asides proposed in each focal area should not be so high as to decrease country allocations and to fail to maximize country ownership of the projects that will be funded.

v. *Removal of 50% rule.* The findings of the MTR found that the 50% rule has hindered resource utilization in GEF-4, and that it is not necessary to limit the front-loading of funds. Council members agreed, in principle, to eliminating the 50% rule established during GEF-4 for the RAF.

vi. *Elimination of group allocations.* The MTR found that "countries with individual allocations have generally appreciated the improved predictability in GEF funds; while countries with a smaller, pooled allocation have experienced difficulties in accessing GEF resources." Most Council members agreed with the mid-term review findings and have recommended that group allocations be abandoned in GEF-5, giving all countries individual allocations.

vii. *Floors.* Most Council members agreed to the notion of applying floors, or minima, to country allocations.

viii. *Convene ad-hoc committee.* Going forward, Council suggested that an ad hoc working committee should convene intersessionally to provide further guidance on improving the STAR. The second ad-hoc committee will meet on October 14, 2009, prior to the November 2009 Council meeting.

STAR GEF-5

4. The latest version of the STAR model, presented in this paper, takes into consideration the above key issues discussed at Council, the latest Council recommendations, the results from the mid-term review, input from STAP,[4] and comments from the GEF Agencies. The focus of this paper is to improve the structure of the STAR design, refine indicators for each focal area, and provide Council with clear options so that decisions can be made on key design issues. Implementation issues have been left out of this paper with the clear intention that the Secretariat will present a paper with a detailed discussion of implementation issues at the Spring 2009 Council meeting, once the structure and indices of the STAR for GEF-5 have been agreed upon by Council. This will include, among other

[4] The following webpage lists the advice that STAP has provided to the GEF since the production by the Evaluation Office of the Mid-Term Review of the RAF: http://stapgef.unep.org/resources/RAF/Advice.

issues, running the model to redistribute unused resources and the relationship between voluntary national business plans and the programming of resources.

5. The overall objective of an allocation system for the GEF has not changed since it was first introduced through the policy recommendations for the fourth replenishment, as "…a system for allocating resources to countries in a transparent and consistent manner based on global environmental priorities and country capacity, policies and practices relevant to successful implementation of GEF projects" (GEF/C.27/Inf.8/Rev.1, 2005). The Secretariat has followed the findings of the RAF MTR and designed the STAR to ensure greater functionality, transparency, and structural simplicity of the model.

6. To achieve this goal, in the current proposal for the STAR, the Secretariat is presenting: (1) clear rules on which countries will receive access to a STAR allocation, (2) proposals on the level of exclusions and how they will be used, (3) a proposal for including a premium for the poorest countries,(4) two options for allocating resources, (5) refined indicators for the Global Benefits Indices (GBI), and (6) a revised Global Performance Index (GPI). The resulting resource allocations are simulated for different replenishment scenarios in Annex 8. This modeling exercise does not take into account any reserve or carryover and assumes that the totality of the replenishment is available for programming. STAR indices are described in detail in Annexes 2-7. The list of countries receiving individual allocations is included in Annex 1.

ACCESS TO RESOURCES

7. Country eligibility for GEF financing is defined in paragraph nine of the *GEF Instrument*. According to the *Instrument*, countries are eligible for GEF funding in a focal area if (a) they meet eligibility criteria established by the relevant COP of that convention, or (b) they are members of the conventions and are countries eligible to borrow from the World Bank (IBRD and/or IDA) or the countries are eligible recipients of UNDP technical assistance through country programming.

8. However, eligibility does not necessarily equate to access to resources and this point has been further considered to ensure maximum impact of scarce resources. In terms of access to resources within the context of the STAR, the RAF MTR highlighted a number of issues related to eligibility, including that "funds could be tied up to the extent that countries new to the GEF will not make use of their potential allocations. It is therefore important to have a sense of the countries that would realistically want to access a particular focal area's funds."

9. To take into account the findings of the RAF MTR, experience with eligibility issues under the RAF in GEF-4, and the elimination of group allocations, the Secretariat is proposing a specific set of rules for whether or not an eligible GEF country will receive a STAR allocation in GEF-5. In order for an eligible country to receive a STAR allocation, a country would need to meet the following three conditions:

i. Be a Party to the relevant Convention and meet the eligibility criteria decided by the Conference of the Parties to that Convention.

ii. Not be a member of the European Union as of July 1st, 2010; and

iii. Have had at least one national project in the past 5 years (in any focal area)

10. The first condition above ensures that the Secretariat is applying the sense of paragraph 9(a) of the instrument, while the other two conditions aim to direct funding to countries that have the greatest need for international assistance for global environmental problems. Condition # 2 specifically addresses the difficulty an EU country would have in demonstrating incrementality over the EU baseline. Condition #3, by limiting allocations to countries that have utilized GEF funds in the past five years, specifically addresses the mid-term review finding quoted in paragraph 9, by not tying up funds with countries that are unlikely to make use of their particular allocation.

11. For countries that are not eligible for a STAR allocation at the start of GEF-5 (i.e. have not yet acceded to/ratified that Convention) but become Parties during the course of GEF-5 and thus qualify for a STAR allocation, the Secretariat is proposing to include the possibility of funding for such countries through the focal area set-asides (see section below) until the next reallocation exercise.

12. Using the above criteria, a list of countries that would receive an individual allocation for each focal area with proposed access to STAR resources is provided in Annex 1.

STRUCTURE OF SYSTEM

Options for Allocation

13. Based on Council guidance, two allocation options were developed further for this paper. The first, as in GEF-4, is for a STAR allocation system that covers only two focal areas, biodiversity (BD) and climate change (CC) (Option 1). The second is for a STAR allocation system that covers four focal areas, biodiversity, climate change, land degradation, and persistent organic pollutants (POPs) (Option 2).

14. Both systems have been designed to utilize the same GPI. The main difference is that Option 1 includes two GBIs (BD and CC) and Option 2 includes four GBIs (BD, CC, LD, and POPs).

15. Option 1: Under option 1 each country that meets the criteria for an allocation in BD or CC under the STAR will receive an allocation for these focal areas. All other focal areas will fall outside of the STAR.

16. Option 2: Under option 2, each country that meets the criteria for BD, CC, LD, or POPs under the STAR will receive an allocation for that particular focal area. The Secretariat is proposing to keep both ozone depletion (ODS) and sound chemicals management, along with international waters, outside of the STAR. For ODS, there is limited value in a resource allocation system given the small number of eligible countries (under 10). In terms of sound chemicals management, including mercury, since this is a new area of funding for the GEF in GEF-5, projects/programs will be of a pilot in nature and therefore do not lend themselves well to a broad country allocation system. The international waters focal area sits outside this allocation option, as requested by Council.

Flexibility of Allocations for Countries under a Certain Threshold

17. The mid-term review found that countries with small allocations face higher transaction costs in accessing GEF funds than countries with larger allocations and that a small allocation combined with the restriction requiring use within a particular focal area has not been cost-effective. The review concluded[5] that "maintaining flexibility for greater cost-effectiveness is indispensable". To address this issue, the Secretariat proposes introducing a *flexibility* scheme, whereby a country which receives a total allocation for all focal areas that falls under a certain threshold would be allowed to use its allocation within any of the four focal areas inside the STAR, provided it is a Party to the relevant Convention.

18. However, it is important that the GEF should be seen to be adhering to guidance from the conventions and meeting its own programming targets. To that end, the threshold will be set so that at least 90% of resources is guaranteed to be programmed under the focal area for which it was intended.

19. Given the current simulations under option 1 for the $5 B replenishment scenario, putting the threshold for flexibility at $5 M would "protect" over 90% of the resources for BD (BD is the focal area most sensitive to this analysis). In other words, any country that receives a sum total allocation for BD and CC that totals less than $5 M would be allowed to use its allocation within either of these two focal areas, if eligible. The threshold would be $6 M and $9 M for the $6.5 B and $9 B scenarios, respectively. Around 55 countries would benefit.

20. Under option 2 for the $5 B replenishment scenario, putting the threshold for flexibility at $7 M would "protect" over 90% of resources for LD (the focal area most sensitive to this analysis). The percentage for all other focal areas would be higher. In other words, any country that receives a total allocation across the four focal areas that totals less than $7 M would be allowed to use its allocation within any of the focal areas where it is eligible. The threshold would be $8 M and $11 M for the $6.5 B and $9 B scenarios, respectively. Around 38 countries would benefit.

Focal Area Set-asides

21. Based on the conclusions from the RAF mid-term review and guidance from the Council, the Secretariat proposes a focal area set-aside (FAS) for each focal area under the STAR. The FAS would fall outside the national STAR allocations in the amount of 20 percent under the $5B and $6.5B scenario and 15 percent under the $9B scenario. This set-aside would be used to finance enabling activities (for BD, CC, and POPs if applicable); sustainable forest management (for BD, CC, and LD if applicable); and for regional and global projects as described below.

22. For enabling activities that are Convention obligations under the CBD, UNFCCC, and Stockholm Convention, the Secretariat proposes that the GEF will support enabling activities up to $500,000 in addition to national STAR allocations, to be funded out of the relevant FAS. As was previously the case, enabling activities that exceptionally would require above $500,000 would be funded from the respective country's STAR envelope.

[5] MTR, P.22

23. Global and regional activities are considered part of the core mandate of the GEF. One of the conclusions of the mid-term review was that the RAF may have diminished the effectiveness of the GEF in the delivery of global and regional environmental benefits. According to the RAF mid-term review "there has been a significant drop in available global and regional resources, from historic shares of 23 percent in biodiversity and 20 percent in climate change to the 10 percent fund under the RAF […], of which 5 percent […] is set aside for global and regional projects per RAF focal area"[6].

24. Building on STAP's recommendation on the use of FAS resources that are not directed to enabling activities and SFM, the Secretariat is proposing the following generic guidelines for the use of set-asides for global and regional projects across all focal areas:

- Any proposal to access FAS resources must be consistent with GEF Strategic Goals and should deliver additional global environmental benefits (GEBs) that would not be achieved via national commitments only.

- Regional projects must be endorsed by each participating country.

25. The following types of projects and programs are envisaged:

- Regional projects/programs addressing transboundary ecosystems, or regional/multi-country projects/programs delivering additional GEBs over single country activities. For these types of interventions, FAS resources will act as an incentive in addition to the national contributions from the STAR envelopes that are expected from the participating countries (especially when national benefits are relatively small compared to global ones)

- Global/Regional assessments and methodologies advancing the delivery of GEBs for the entire GEF partnership, or advancing learning objectives in the focal areas.

26. As a complement to these generic criteria, each focal area has developed specific guidance for the use of its respective set-aside. These are outlined in the draft GEF-5 focal area strategies (GEF/R.5/Inf.14).

27. As discussed above, the Secretariat also proposes that funding for countries that do not have access to individual STAR resources or that become eligible after the start of GEF-5, be made available through FAS.

28. Separate from the focal area set-asides, a number of other programs and activities will be funded outside of the STAR allocation process. These include:

a. Agency fees

b. Corporate budgets of the Secretariat, the Trustee, Evaluation Office, and STAP

c. Small Grants Program

[6] MTR, P14

d. Country Support Program, National Dialogue Initiative, and Sub-Regional Consultations

e. International Waters

f. Ozone Layer Depletion

g. Sound Chemicals Management

h. Voluntary National Business Plans

i. GEF Earth Fund

j. Support through Non-grant Instruments

29. With respect to GEF Agency fees, currently GEF Agencies receive a flat 10% fee for each project that comes out of a country's individual allocation. These fees, however, are not managed by Agencies on a project-by-project basis, and the fees also cover some corporate activities. The fees are thus managed by the Agencies on a portfolio basis. This could pose a problem in terms of transparency and fairness for recipient countries. The Secretariat therefore proposes keeping fees outside of the STAR. If Council wished to keep fees inside the STAR system, and the fees were designed to cover costs for individual projects, then the fee system would need to be redesigned.

30. Difficulties with addressing the SGP in the RAF during GEF-4, emphasised by the Mid-Term Review, led to the recommendation that the SGP be kept out of the allocation system under GEF-5. A similar reasoning exists where it is proposed that the GEF Earth Fund be kept out of the allocation system to address the finding of the MTR[7] that the RAF has negatively impacted on the engagement of the private sector.

Floors and Ceilings

31. Under the RAF, there was no reason for the establishment of floors, given the existence of group allocations. With the elimination of the group allocation for GEF-5, the Secretariat proposes a $2 M floor for CC, $1.5 M floor for BD, and a $0.5 M floor for LD and POPs, if applicable. The levels of the floors were chosen to balance the need for every country to receive a sizeable allocation with opportunities to generate maximum global environmental benefits. The floors are kept at the same levels for the simulations for all three replenishment scenarios; therefore a number of countries receive the same allocation under all three scenarios.

32. In addition to floors, the proposed STAR model will include ceilings on country allocations to ensure a greater level of distribution of funds. The Secretariat proposes to continue with the same ceiling levels as GEF-4, with 15 percent for CC and 10 percent for all other focal areas.

[7] MTR, conclusions 1 and 7.

INDICATORS

GEF Performance Index

33. The GPI has been adjusted to reflect the outcomes of the mid-term review, input from STAP, and guidance from Council. As with all of the indices proposed for the STAR, the Secretariat has worked to maintain transparency and, where possible, simplicity of the index.

34. The GPI is a proxy for performance, considering actual performance from GEF projects, commitment to put in place environmental policy and institutional frameworks, and governance and financial management. The GPI component of the STAR is a critical balance to the GBI, which is a broad proxy for the potential to generate global environmental benefits from the resource perspective.

35. In developing the STAR, the Secretariat reviewed a number of indices currently in use, including the Human Development Index, the Environmental Sustainability Index, the Environmental Performance Index, and the use of Millennium Development Goals indicators, with the aim of further strengthening the GPI. After careful analyses, it was concluded that that these indices were not sufficiently robust for a resource allocation model, neither from a transparency perspective nor from a consideration of data quality and availability. Thus the most effective measure taken to strengthen the GPI, considering the range of performance issues to be considered, was to refine the GEF-4 GPI.

36. The GEF-5 GPI is, therefore, a measure of country performance based on two main sources, both used in GEF-4: 1) The World Bank's Country Policy and Institutional Assessment (CPIA), derived from judgments of World Bank staff on country performance based on a set of macroeconomic, structural, social, and governance criteria; and 2) A revised GEF Portfolio Performance Index (PPI). Both indices have been updated with 2008 data and run in the STAR simulations.

37. The MTR recommended that the relative weight of environment portfolio performance in a country should be increased in GEF-5 to ensure that performance is rewarded. More specifically, the mid-term review suggested that the index should "increase its relevance by adding ratings from the final evaluations of GEF projects" and that "increasing the relative importance of the environment portfolio will provide better recognition of achievements and results in LDCs and SIDS, which may achieve high outcome ratings in their portfolios even while scoring relative lower in general institutional performance."[8]

38. To take these recommendation into consideration, the Project Portfolio Performance Index (PPI), has been given a higher weight of 20 percent within the GEF-5 GPI (versus the 10 percent given under GEF-4). This is now within the mid-range of current international practice (between 5 and 30 percent of portfolio performance). In addition, the PPI includes terminal evaluation ratings.

39. The proposed new PPI is calculated using implementation progress ratings of project implementation reports (PIR), as well as terminal evaluation reports (TER) ratings on outcomes.

[8] MTR, P.19

$$PPI = 0.4 \times PIR + 0.6 \times TER$$

40. The TERs are given a slightly higher weight because these ratings come at the close of a *project*, providing a better indication of objective achievement compared with ratings given during *project* implementation, which can only provide an indication of progress towards objective achievement.

41. The second component of the GPI, the CPIA, evaluates the quality of institutions and policies; it is the main criterion for allocating country-credits from IDA.[9] The CPIA rates countries against a set of 16 criteria grouped in four clusters: (a) economic management, (b) structural policies, (c) policies for social inclusion and equity, and (d) public sector management and institutions. The ratings undertaken since 1997 are prepared annually in all countries by Bank county teams.

42. Two subcomponents of the CPIA are used in the GEF-5 STAR simulations:

1) The **Country Environmental Policy and Institutional Assessment Index** (CEPIA). The CEPIA provides a systematic assessment of environment related policies and institutional frameworks within a country. It examines, through separate evaluations: (i) the existence of supportive policies, and (ii) the capacity to implement and enforce policies in each of the following areas: air pollution, water pollution, solid and hazardous waste, ecosystem conservation and biodiversity protection, marine and coastal resources, freshwater resources, and commercial natural resources.

2) The **Broad Framework Indicator** (BFI) examines quality of management in selected areas of the public sector. It is constructed using an average rating for indicators in the "Public Sector Management and Institutions" cluster of the World Bank CPIA. This cluster consists of the following areas: property rights and rule-based governance; quality of budgetary and financial management; efficiency of revenue mobilization; quality of public administration; and transparency, accountability and corruption in the public sector.

43. It was decided to increase the relative weight of the PPI and, therefore, the weights used for CEPIA and BFI were reduced to 65% and 15% respectively. The revised GEF-5 GPI formula[10] is thus:

$$GPI = 0.20 \times PPI + 0.65 \times CEPIA + 0.15 \times BFI$$

44. More details on the GPI calculation are provided in Annex 2.

[9] Quality refers to how conducive the policy and institutional framework is to fostering poverty reduction, sustainable growth and the effective use of development resources (Van Waeyenberge 2008).

[10] GPI formula in GEF-4 was GPI = 0.10 x PPI + 0.70 x CEPIA + 0.20 x BFI

A Premium to Take Into Account Country Capacity and Vulnerability: GDP-based Index

45. One of the concerns that was raised by stakeholders during the development of the RAF (and reiterated through the mid-term review) was the impact and potential negative consequences on smaller, vulnerable countries; SIDS; and countries with poor capacity. To better address this concern, the Secretariat has introduced a premium to take into account country capacity and vulnerability derived from Purchasing Power Parity (PPP) Gross Domestic Product (GDP), in addition to the floors. This is in line with the practice of all multilateral development banks' concessional funds.

46. Purchasing Power Parity is often used to compare the standards of living between countries, in place of a per-capita GDP comparison at market exchange rates. PPP adjusts the GDP to reflect the amount of a certain basket of goods and services that can be purchased with a country's currency. It was selected for inclusion in the STAR model as a third component in addition to the GBI and GPI, as the measure is a good proxy for socio-economic status among countries. Since market (or official) exchange rates are subject to fluctuations, which may result in comparisons that do not reflect cross-country differences in real economic activity, it is often recommended that PPP rates be used for conversion instead of exchange rates. It is generally agreed that PPP rates are conceptually appropriate conversion factors.[11] Using PPP GDP rather than nominal GDP therefore gives a premium not only to relative capacity, but also vulnerability.

47. The Secretariat is therefore proposing to include the PPP GDP indicator (GDPI) into the overall STAR. Annex 3 provides an example of how the GDPI would impact a country's allocation for the chosen exponent.

GEF Benefits Indices

48. The following section, prepared in collaboration with STAP, outlines the main recommendations regarding the GEF benefits indices. These indices are described in detail in Annexes 4-7.

Climate Change

49. The proposed GEF Benefits Index for Climate Change (GBI_{CC}) has been changed from its iteration in the June 2009 Council paper to include a component related to forest cover and forestry. The GBI_{CC} is now composed of two indicators. One indicator is related to the emissions of greenhouse gases, excluding land use change. The other indicator is related to forest cover, in the absence of an adequate indicator to track GHG budgets from land use change. The first indicator is weighted at 95% and the weight for forest-related emissions is 5%.

50. The first indicator is similar to that used in GEF-4 for the GBI_{CC}. It uses countries' emissions of six greenhouse gases (CO2, CH4, N20, HFCs, PFCs, SF6) in tons of CO2 equivalent in the latest year available, multiplied by an adjustment factor, which rewards countries that show a decrease in the amount of emissions of CO2 relative to GDP or "Carbon Intensity." This index is thus represented as: "*A country's emissions of greenhouse*

[11] WP/95/18-EA. A Review of PPP-Adjusted GDP Estimation and its Potential Use for the Fund's Operational Purposes by Nancy Wagner.

gases in tons of CO2 equivalents in the latest year available multiplied by the country's Carbon Intensity in 1990 divided by the country's Carbon Intensity in the latest year available."

51. The second indicator is a proxy for the potential of emissions reduction and/or carbon sequestration related to forest cover and deforestation. It is based on a countries' forest cover in 2005 multiplied by an adjustment factor. The adjustment factor rewards countries with a decreasing loss of forests over time. The factor is equal to one if there is no loss of forest. This indicator is thus represented as: *"A country's forest cover in 2005 multiplied by the country's average annual change in the forest cover between 1990 and 2000 divided by the country's average annual change in the forest cover between 2000 and 2005"*

52. LULUCF (land-use, land-use change and forestry), AFOLU (agriculture, forestry and other land-use), and REDD+ (reducing emissions from deforestation and forest degradation in developing countries +) issues are under negotiation in the UNFCCC. The choice of a forest-related indicator should not be seen as an attempt to pre-empt in any way the COP discussions and decisions related to these matters. Moreover, the chosen proxy is an imperfect indicator of overall carbon stocks, and there are limitations with the data accuracy. This indicator will be kept under review and might have to be revised for application in GEF-6 based on discussions under the UNFCCC and technical and scientific advances. For these reasons, a relatively small weight is proposed for the forest-related component at this stage.

53. Annex 4 provides more details about the calculation of the GBI_{CC}.

Biodiversity

54. For the GEF Benefits Index for Biodiversity (GBI_{BD}), taking into account the views expressed by some Council members, and noting that the mid-term review of the RAF had expressed overall satisfaction with the indicators, it is proposed to rely on the indicators that were developed for GEF-4, and that were updated with new data available in 2008.

55. To respond further to recommendations[12] from the mid-term review, it is proposed to increase a little the weight given to marine ecosystems from the GEF-4 level of 20% to 25%. The GBI would also be updated by the Secretariat, to the extent possible, in order to take into account new data generated by the scientific community.

56. Following the requests from some Council members at the June 2009 Council meeting, the Secretariat has also further developed an option based on the IUCN Red List that was presented and discussed in June 2009. The changes were to bring in a total of three indicators: 1) the IUCN Red List of Threatened Species, 2) a country's share, expressed as a percentage, of the total global surface area of terrestrial and marine protected areas in GEF-eligible countries, and 3) the percentage of a country's area of land and territorial waters that is protected. The overall result of this experiment did not resolve the issues identified during the last Council meeting, and so this option, and variations around it, are no longer being recommended or tabled.

57. Annex 5 provides more details about the calculation of the GBI_{BD}.

[12] MTR, P.56

Land Degradation

58. The proposed GBI for land degradation (GBI_{LD}) is designed to take into account three key factors:

i. The need for controlling and preventing land degradation in the context of production systems;

ii. The challenge of combating desertification in drylands, including the need for adaptation to drought risks; and

iii. The need to address the livelihood needs of vulnerable populations

59. Proxy indicators were derived for each of these factors based on data availability. The three indicators used are **land area affected**, **total dryland area**, and **vulnerable populations**. A quantitative estimate of land area affected by LD is used as a proxy indicator for "loss of ecosystem function and productivity."

60. The indicator for total dryland area is derived as the proportion of each country's land area within arid, semi-arid and sub-humid zones as defined by the UNCCD. Drylands are an important indicator because they are predisposed to desertification and are a major factor influencing livelihoods of nearly a third of the world's population. In addition, drylands are a priority of the UNCCD. It is therefore essential for the GBI_{LD} to take into account the differences in country opportunities with respect to drylands.

61. The indicator for vulnerable populations accounts for the fact that LD is a human development challenge due to its impacts on poverty, especially in rural areas where people overwhelmingly depend on the land for their livelihoods. Rural population is therefore a good proxy for rural poverty especially where agricultural land use is a livelihood priority.

62. Annex 5 provides more details about the calculation of the GBI_{LD}.

Persistent Organic Pollutants (POPs)

63. As noted, it is proposed to exclude 'ozone layer depletion' and 'sound chemicals management' from any resource allocation system that would operate under GEF-5. Two proxy indicators are proposed to calculate a GBI for POPs (GBI_{POPs}): i) arable and permanent cropland (data from the Food and Agriculture Organization of the United Nations) and ii) industry value added (data from the World Bank).

64. The Secretariat has worked to confirm the validly of the original assumptions laid out in the June 2009 Council paper (GEF/C.35/4.Rev.1) for the use of these indicators. Overall, these indicators could be proxies to track most of the investment needs with regards to industrial POPs chemicals and the industrial sources of un-intentionally produced POPs, as well as investment and capacity building needs regarding pest management in general, bearing in mind that many POPs are pesticides.

65. Two other options were explored with the help of the STAP, namely whether the National Implementation Plans for the Stockholm Convention that were developed with GEF support could serve as a basis to develop an index, and whether there exist any alternative

datasets of indicators with baseline information that could be used. As anticipated (see for example GEF/C.34/Inf.5 *Progress Report on the Development of RAF Indicators for the Focal Areas not yet under the RAF*), this effort has proven unfruitful and no other credible indicator appear to exist at present.

66. More detail on the validity of the assumptions regarding these POPs indicators and the options discarded are given in Annex 7 (GBI_{POPs}).

GEF-5 STAR SIMULATIONS

67. The overall score for each country for a particular focal area, and where the GBI is the specific index for that focal area, will be calculated as follows:

$$\text{Country Score} = GPI^{1.0} * GBI^{0.8} * GDP^{-0.04}$$

68. The relative weight of the GPI and GBI is left unchanged from GEF-4 with the same reasoning for the exponential to balance performance against potential with respect to GEBs. Annex 8 provides the GEF-5 simulations using all three components in the above calculation for $ 5 B, $6.5 B, and $9 B scenarios. For ease of comparison, it also provides the original country allocations for CC and BD under GEF-4 at $3.1 B.

ANNEX **1**

LIST OF COUNTRIES WITH ACCESS TO STAR RESOURCES

1. The table below lists the countries within each focal area that will be allocated individual allocations under the STAR in GEF-5. If a country is listed with a "yes" in a focal area and a "no" in another, it is normally because that country is not a Party to the particular Convention.

Countries with STAR Individual Allocation (maximum of 144 countries):

Countries UN	**Codes UN**	**Climate Change**	**Biological Diversity**	**POPS**	**Land Degradation**
144		***143***	***144***	***124***	***141***
Afghanistan	*AFG*	Yes	yes	no	yes
Albania	*ALB*	Yes	yes	yes	yes
Algeria	*DZA*	Yes	yes	yes	yes
Angola	*AGO*	Yes	yes	yes	yes
Antigua and Barbuda	*ATG*	yes	yes	yes	yes
Argentina	*ARG*	yes	yes	yes	yes
Armenia	*ARM*	yes	yes	yes	yes
Azerbaijan	*AZE*	yes	yes	yes	yes
Bahamas	*BHS*	yes	yes	yes	no
Bangladesh	*BGD*	yes	yes	yes	Yes
Barbados	*BRB*	yes	yes	yes	no
Belarus	*BLR*	yes	yes	yes	yes
Belize	*BLZ*	yes	yes	no	yes
Benin	*BEN*	yes	yes	yes	yes
Bhutan	*BTN*	yes	yes	no	yes
Bolivia, Plurinational State of	*BOL*	yes	yes	yes	yes
Bosnia and Herzegovina	*BIH*	yes	yes	no	yes
Botswana	*BWA*	yes	yes	yes	yes
Brazil	*BRA*	yes	yes	yes	yes
Burkina Faso	*BFA*	yes	yes	yes	yes
Burundi	*BDI*	yes	yes	yes	yes
Cambodia	*KHM*	yes	yes	yes	yes
Cameroon	*CMR*	yes	yes	yes	yes
Cape Verde	*CPV*	yes	yes	yes	yes
Central African Republic	*CAF*	yes	yes	yes	yes
Chad	*TCD*	yes	yes	yes	yes
Chile	*CHL*	yes	yes	yes	yes
China	*CHN*	yes	yes	yes	yes
Colombia	*COL*	yes	yes	yes	yes
Comoros	*COM*	yes	yes	yes	yes
Democratic Republic of the Congo	*COD*	yes	yes	yes	yes
Congo	*COG*	yes	yes	yes	yes
Cook Islands	*COK*	yes	yes	yes	yes
Costa Rica	*CRI*	yes	yes	yes	yes
Côte d'Ivoire	*CIV*	yes	yes	yes	yes
Cuba	*CUB*	yes	yes	yes	yes
Croatia	*HRV*	yes	yes	yes	yes
Djibouti	*DJI*	yes	yes	yes	yes

Dominica	*DMA*	yes	yes	yes	yes
Dominican Republic	*DOM*	yes	yes	yes	yes
Ecuador	*ECU*	yes	yes	yes	yes
Egypt	*EGY*	yes	yes	yes	yes
El Salvador	*SLV*	yes	yes	yes	yes
Equatorial Guinea	*GNQ*	yes	yes	no	yes
Eritrea	*ERI*	yes	yes	yes	yes
Ethiopia	*ETH*	yes	yes	yes	yes
Fiji	*FJI*	yes	yes	yes	yes
Gabon	*GAB*	yes	yes	yes	yes
Gambia	*GMB*	yes	yes	yes	yes
Georgia	*GEO*	yes	yes	yes	yes
Ghana	*GHA*	yes	yes	yes	yes
Grenada	*GRD*	yes	yes	no	yes
Guatemala	*GTM*	yes	yes	yes	yes
Guinea	*GIN*	yes	yes	yes	yes
Guinea-Bissau	*GNB*	yes	yes	yes	yes
Guyana	*GUY*	yes	yes	yes	yes
Haiti	*HTI*	yes	yes	no	yes
Honduras	*HND*	yes	yes	yes	yes
India	*IND*	yes	yes	yes	Yes
Indonesia	*IDN*	yes	yes	no	Yes
Iran (Islamic Republic of)	*IRN*	yes	yes	yes	Yes
Iraq	*IRQ*	no	yes	no	No
Jamaica	*JAM*	yes	yes	yes	Yes
Jordan	*JOR*	yes	yes	yes	Yes
Kazakhstan	*KAZ*	yes	yes	yes	Yes
Kenya	*KEN*	yes	yes	yes	Yes
Kiribati	*KIR*	yes	yes	yes	Yes
Democratic People's Republic of Korea	*PRK*	yes	yes	yes	Yes
Kyrgyzstan	*KGZ*	yes	yes	yes	Yes
Lao People's Democratic Republic	*LAO*	yes	yes	yes	Yes
Lebanon	*LBN*	yes	yes	yes	Yes
Lesotho	*LSO*	yes	yes	yes	Yes
Liberia	*LBR*	yes	yes	yes	Yes
Libyan Arab Jamahiriya	*LBY*	yes	yes	yes	Yes
Madagascar	*MDG*	yes	yes	yes	Yes
Malawi	*MWI*	yes	yes	yes	Yes
Malaysia	*MYS*	yes	yes	no	Yes
Maldives	*MDV*	yes	yes	yes	Yes
Mali	*MLI*	yes	yes	yes	Yes
Marshall Islands	*MHL*	yes	yes	yes	Yes
Mauritania	*MRT*	yes	yes	yes	Yes
Mauritius	*MUS*	yes	yes	yes	Yes
Mexico	*MEX*	yes	yes	yes	Yes
Micronesia (Federated States of)	*FSM*	yes	yes	yes	Yes
Republic of Moldova	*MDA*	yes	yes	yes	Yes
Mongolia	*MNG*	yes	yes	yes	Yes
Montenegro	*MNE*	yes	yes	no	Yes
Morocco	*MAR*	yes	yes	yes	Yes

Mozambique	*MOZ*	yes	yes	yes	Yes
Myanmar	*MMR*	yes	yes	yes	Yes
Namibia	*NAM*	yes	yes	yes	Yes
Nauru	*NRU*	yes	yes	yes	Yes
Nepal	*NPL*	yes	yes	yes	Yes
Nicaragua	*NIC*	yes	yes	yes	Yes
Niger	*NER*	yes	yes	yes	Yes
Nigeria	*NGA*	yes	yes	yes	Yes
Niue	*NIU*	yes	yes	yes	Yes
Pakistan	*PAK*	yes	yes	yes	Yes
Palau	*PLW*	yes	yes	no	Yes
Panama	*PAN*	yes	yes	yes	Yes
Papua New Guinea	*PNG*	yes	yes	yes	Yes
Paraguay	*PRY*	yes	yes	yes	Yes
Peru	*PER*	yes	yes	yes	Yes
Philippines	*PHL*	yes	yes	yes	Yes
Russian Federation	*RUS*	yes	yes	no	Yes
Rwanda	*RWA*	yes	yes	yes	Yes
Saint Kitts and Nevis	*KNA*	yes	yes	yes	Yes
Saint Lucia	*LCA*	yes	yes	yes	Yes
Saint Vincent and the Grenadines	*VCT*	yes	yes	yes	Yes
Samoa	*WSM*	yes	yes	yes	Yes
São Tomé and Principe	*STP*	yes	yes	yes	Yes
Senegal	*SEN*	yes	yes	yes	Yes
Serbia	*SRB*	yes	yes	yes	Yes
Seychelles	*SYC*	yes	yes	yes	Yes
Sierra Leone	*SLE*	yes	yes	yes	Yes
Solomon Islands	*SLB*	yes	yes	yes	Yes
South Africa	*ZAF*	yes	yes	yes	Yes
Sri Lanka	*LKA*	yes	yes	yes	yes
Sudan	*SDN*	yes	yes	yes	yes
Suriname	*SUR*	yes	yes	no	yes
Swaziland	*SWZ*	yes	yes	yes	yes
Syrian Arab Republic	*SYR*	yes	yes	yes	yes
Tajikistan	*TJK*	yes	yes	yes	yes
United Republic of Tanzania	*TZA*	yes	yes	yes	yes
Thailand	*THA*	yes	yes	yes	yes
The former Yugoslav Republic of Macedonia	*MKD*	yes	yes	yes	yes
Timor-Leste	*TLS*	yes	yes	no	yes
Togo	*TGO*	yes	yes	yes	yes
Tonga	*TON*	yes	yes	no	yes
Trinidad and Tobago	*TTO*	yes	yes	yes	yes
Tunisia	*TUN*	yes	yes	yes	yes
Turkey	*TUR*	yes	yes	no	yes
Turkmenistan	*TKM*	yes	yes	no	yes
Tuvalu	*TUV*	yes	yes	yes	yes
Uganda	*UGA*	yes	yes	yes	yes
Ukraine	*UKR*	yes	yes	yes	yes
Uruguay	*URY*	yes	yes	yes	yes

Uzbekistan	*UZB*	yes	yes	no	yes
Vanuatu	*VUT*	yes	yes	yes	yes
Venezuela (Bolivarian Republic of)	*VEN*	yes	yes	yes	yes
Viet Nam	*VNM*	yes	yes	yes	yes
Yemen	*YEM*	yes	yes	yes	yes
Zambia	*ZMB*	yes	yes	yes	yes
Zimbabwe	*ZWE*	yes	yes	no	yes

ANNEX 2

GEF PERFORMANCE INDEX **(GPI)**

GPI = 0.65 CEPIA + 0.15 BFI + 0.2 PPI

PPI:	Project Portfolio Performance Index
CEPIA:	Country Environmental Policy and Institutional Assessment
BFI:	Broad Framework Indicator

Calculating the GEF performance index - PPI

1. The PPI is composed of scores given to each country based on Project Implementation Reports (PIRs) and Terminal Evaluation Reports (TERs). The PIRs include self-ratings on implementation progress and progress toward achieving global environmental objectives. The TERs include final ratings on outcomes and are assessed by the GEF Evaluation Office on the basis of the Terminal Evaluations submitted at each project closing.

2. The process proposed to determine the PPI for GEF-5 is:

- Run a query from the database on projects under implementation since 2002 with their annual PIR ratings. There were over 2000 ratings.

- Projects under implementation between the years of 2005 and 2008 were selected for analysis and for the determination of a country score by both the GEFSEC (for PIRs) and the Evaluation Office (for TERs).

- For PIRs, data was sorted by country, and the average of all implementation progress ratings from all PIRs for all projects was determined for each country; this yielded a PIR country score. Similarly for TERs, the average of all TERs for a country was calculated to yield a TER country score

- PIR data which produced a score for 118 countries and TER data which produced a score for 72 countries were combined. The total of countries that received either a PIR score or a TER score was 122.

- Countries missing a PIR score received the average of PIR country scores, 3.6; countries missing a TER score were given the average of the TE country score, 4.2.

- More weight was put towards the TER scores in calculating the final PPI to consider the assumption that they are more accurate. Therefore, the PPI = 0.4 PIR + 0.6 TER.

Calculating the GEF Performance Index - CEPIA

3. The World Bank's International Development Association's (IDA) Country Policy and Institutional Assessment (CPIA) is prepared annually; it rates IDA-eligible countries against 16

criteria grouped in four clusters: [13]

A. **Economic Management**

B. **Structural Policies**

C. **Policies for Social Inclusion/Equity**

D. **Public Sector Management and Institutions**

4. The Policies and Institutions for Environmental Sustainability (CEPIA) is criterion 11 # in the Policies for Social Inclusion/Equity cluster. Its values range from 1-6, with 6 as the highest.

5. The source for these data is World Bank's IDA Resource Allocation Index (IRAI) [14] The World Bank publishes data for 75 countries online[15].

Calculating the GEF Performance Index - BFI

6. The BFI, or Broad Framework Indicator, also comes from the World Bank's IDA Resource Allocation Index (IRAI). It is made up of the average of the last 5 CPIA indicators that constitute the "Public Sector Management and Institutions" cluster. They too have a range from 1-6, with 6 as the highest.

D. **Public Sector Management and Institutions**

- Property Rights and Rule-based Governance
- Quality of Budgetary and Financial Management
- Efficiency of Revenue Mobilization
- Quality of Public Administration
- Transparency, Accountability, and Corruption in the Public Sector

Data

7. Data was obtained from the World Bank for 142 countries. Disclosure policies prohibit publishing this data for the (142-75=) 67 other countries' data, which is considered confidential. For countries lacking CPIA data, the minimum was applied to fill the data gaps, except for SIDS. SIDS have had limited engagement with the World Bank for a variety of reasons. The Secretariat therefore imputed an average score for the CEPIA and the BFI instead of the minimum, so that these countries would not be unfairly penalized due to a lack of history of World Bank business.

[13] http://siteresources.worldbank.org/IDA/Resources/73153-1181752621336/CPIA2008questionnaire.pdf
[14] World Bank's IDA Resource Allocation Index (IRAI)
[15] World Bank's IDA Resource Allocation Index (IRAI)
http://siteresources.worldbank.org/IDA/Resources/73153-1181752621336/IRAI2008table1.xls

ANNEX 3

GDP-BASED INDEX **(GDPI)**

1. During the STAR *ad hoc* committee meeting in March 2009 in Paris and the GEF replenishment meeting in June 2009 in Washington, D.C., a number of Council members suggested the GEF Secretariat consider adding a social and economic component to its resource allocation. This component should help distribute resources to poorer countries to build their capacities in implementing GEF projects. In responding to this suggestion, the GEF Secretariat has derived an Index based on GDP.

2. In order to keep the STAR simple and transparent, the GEF Secretariat used one indicator to develop the GDP Index: "GDP per capita annual income measured in purchasing power parity with a negative exponential power." Mathematically, it can be expressed as:

GDPI = (GDP per capita)^(-Power).

3. With this methodology, the lower the GDP per capita of a country and the larger value of the exponential power, the higher the GDPI score of the country, and consequently a higher allocation for the country. A value of -0.04 was selected by the Secretariat to use in the simulations presented in Annex 8 as a compromise figure.

4. For illustrative purposes, the Table below presents how the GDPI affects allocations. The illustration was prepared with the data of biodiversity (BD) under a replenishment scenario of $6.5 billion. The GDP Index with a power of negative 0.04 will shift resources from richer countries to poorer countries. Due to the GDPI, for example, a country with a low per capita income will receive an increase of nearly 12% for its BD allocation.

5. As GDP per capita increases, the premium will decrease. When a country's GDP per capita reaches about $4000 as in Indonesia or Morocco, this premium becomes zero. When a country's GDP per capita passes this threshold, a country's allocation will be reduced due to the use of the GDP Index. For example, with the GDPI, Colombia, which has a GDP per capita income of $8885, will receive 2% less funds than it would with an allocation without the GDP index. Consequently, the GDP Index in the STAR shifts some resources from the wealthier countries to the poorer countries, while keeping middle income countries' allocations unchanged.

6. It should be noted that the extent of resource shifting will increase dramatically with an increase of the exponential power, if other conditions are the same. For example, when the power of the GDP index is changed from -0.03 to -0.05, the allocations to a country with low GDP will increase from 109% to 116%, while the allocations, say, to Trinidad & Tobago will be reduced from 95% (1-5%) to 84% (1-16%).

Effect of GDP-based Indicator for Biodiversity $6.5B Scenario	GDP/cap ppp (int' $) in 2008	Allocation without GDP Indicator	Allocation with $GDP^{-0.04}$	Difference
Democratic Republic of the Congo	321	15.5	17.3	11.8%
Liberia	388	2.7	3.0	10.9%
Central African Republic	736	2.0	2.1	8.1%
United Republic of Tanzania	1263	16.3	17.2	5.8%
Bangladesh	1334	2.2	2.3	5.6%
India	2972	36.8	37.7	2.3%
Congo	3946	4.1	4.2	1.1%
Indonesia	3975	67.2	68.0	1.1%
Morocco	4388	6.1	6.2	0.7%
Egypt	5416	5.7	5.6	-0.2%
Colombia	8885	48.2	47.2	-2.1%
Brazil	10296	89.2	86.8	-2.7%
Turkey	13920	7.5	7.2	-3.9%
Chile	14465	23.8	22.9	-4.0%
Russian Federation	16139	32.3	30.8	-4.4%
Trinidad and Tobago	24742	3.7	3.5	-6.1%

ANNEX 4

GEF BENEFITS INDEX FOR CLIMATE CHANGE **(GBI_{CC})**

1. The GBI_{cc} is now composed of two indices. One index is related to the emissions of greenhouse gases, excluding land use change. The other index is related to forest cover, in the absence of an adequate indicator to track GHG budgets from land use change.

2. The first index is based on countries' emissions of greenhouse gases in tons of CO_2 equivalents in the year 2007 multiplied by an adjustment factor, which rewards countries that show a decrease in the amount of emissions of CO_2 relative to GDP or "Carbon Intensity." The adjustment factor is expressed as a country's Carbon Intensity in 1990 divided by the country's Carbon Intensity in 2007.

3. The GBI for Climate Change in GEF-4 is represented as: "*A country's emissions of greenhouse gases in tons of CO_2 equivalents in the year 2000 multiplied by the country's Carbon Intensity in 1990 divided by the country's Carbon Intensity in 2000*." The GBI for Climate Change in GEF-5 is represented as: "*A country's emissions of greenhouse gases in tons of CO_2 equivalents in year 2007 multiplied by the country's Carbon Intensity in 1990 divided by the country's Carbon Intensity in 2007*."

4. To ensure both comprehensiveness and comparability, standardized carbon emissions data available from the Climate Analysis Indicators Tool (CAIT) unit of the World Resources Institute are used in the calculation.

5. In GEF-4, the GBI for Climate Change has been criticized for "rewarding the polluters" and for not taking into consideration the significant potential for Climate Change global benefits related to land use change and deforestation.

6. The GEF Secretariat believes that this calculation methodology allocates the GEF resources to countries with the greatest potential to deliver Global Environment Benefits (ie, GHGs reductions) adjusted by a factor rewarding the countries whose carbon intensity has decreased since the baseline year (1990).

7. With regards to the second criticism, a new index is proposed for the STAR : to include a component as proxy for the potential of emissions reduction and/or carbon sequestration related to forest cover and deforestation. It is based on a countries' forest cover in 2005 multiplied by an adjustment factor. The adjustment factor rewards countries with a decreasing-over-time-loss of forests; it is equal to one if there is no loss. This index is thus represented as: "*A country's forest cover in 2005 multiplied by the country's average annual change in the forest cover between 1990 and 2000 divided by the country's average annual change in the forest cover between 2000 and 2005"*

8. To ensure both comprehensiveness and comparability, forest cover data available from the FAO are used in the calculation.

9. LULUCF (land-use, land-use change and forestry), AFOLU (agriculture, forestry and other land-use), and REDD+ (reducing emissions from deforestation and forest degradation in developing countries +) issues are under negotiation in the UNFCCC. The choice of a forest-related indicator should not be seen as an attempt to pre-empt in any way the COP discussions and decisions related to these matters. Moreover, the chosen proxy is an imperfect indicator of overall carbon stocks, and there are limitations with the data accuracy. This indicator will be kept under review and might have to be revised for application in GEF-6, based on discussions under the UNFCCC, as well as technical and scientific advances. For these reasons, a relatively small weight of 5% is proposed for the forest-related component at this stage.

10. The final formula for the Climate Change GBI is then :

$GBI_{cc} = 0.95 \text{ X } [GHG_{2007} \text{ X } CI_{1990} / CI_{2007}] + 0.05 \text{ X } [FC_{2005} \text{ X } DF_{1990\text{-}2000} / DF_{2000\text{-}2005}]$[16]

Where :
GHG = emissions of six types of greenhouse gases (CO_2, CH_4, N_20, HFCs, PFCs, SF_2) in tons of CO_2 equivalent
CI = carbon intensity, equal to GHG emissions divided by GDP
FC = forest cover in hectares
DF = absolute value of the average annual change in the forest cover between the years considered
[ ] expresses a normalization of the index

[16] If $DF_{1990\text{-}2000}$ and $DF_{2000\text{-}2005}$ are positive (increase of the forest cover), the adjustment factor for the LULUCF index is 1.

ANNEX 5

GEF BENEFITS INDEX FOR BIODIVERSITY (GBI_{BD})

OPTION 1: GEF-4 Index (based on Annex 1 from The GEF Resource Allocation Framework (GEF/C.27/Inf.8/Rev.1) November 2005)

1. The GEF Benefits Index for Biodiversity (GBI_{BD}) is intended to be responsive to its mandate, conceptually simple, scientifically based, and comprehensive in its coverage of GEF-eligible countries. Drawing on work by the scientific community and data compiled by various organizations, including the World Wildlife Fund, Conservation International, The World Conservation Union (IUCN), Birdlife International and FishBase, the Secretariat has constructed the GEF Benefits Index for Biodiversity with the support of the World Bank's Development Research Group.

2. The GBI_{BD}, described below, makes maximum possible use of the available, scientifically-reliable information for a cross-country assessment of terrestrial and marine biodiversity. The index has benefited from extensive technical consultations with conservation scientists. It will be further refined and updated as additional, reliable data and indicators become available.

3. The GBI_{BD} reflects the complex, highly uneven distribution of species and threats to them across the ecosystems of the world, both within and across countries. It recognizes the richness of available data in some areas of biodiversity (e.g., species within certain taxonomic groups) and the sparseness of available data in others (e.g., genetic diversity and ecosystem services). It also acknowledges the gaps in the available data -- for example, information on genetic diversity and ecosystem services at the country level -- through the inclusion of broad indicators that capture the uniqueness of ecoregions within each country.

4. The GBI_{BD} for a country is a weighted average of the country's scores for marine biodiversity and terrestrial biodiversity, as detailed in the next two sections. The terrestrial score is weighed 75 percent, and the marine score is weighted 25 percent.

GBI_{BD} = WT x Terrestrial Score + WM x Marine Score
With WT=0.75 and WM=0.25

Terrestrial Score for Each Country

5. The terrestrial score for each country is built up from highly-detailed subnational data available for specific taxanomic groups, but recognizes the paucity of data for other groups and for ecosystems. The score is constructed in four steps which are described more fully in the following section:

(a) Identify all components of distinct terrestrial ecoregions within a country (these Country-Ecoregion Components are abbreviated as CECs);

(b) Score each CEC using four characteristics – represented species, threatened species, ecoregion representation, and threatened ecoregions;

(c) Determine the composite score for each terrestrial CEC using a weighted average of the four characteristics scores; and

(d) Compute the score for each country as the sum of scores for all of the CECs in the country.

Identify Terrestrial Country-Ecoregion Components

6. An ecoregion is a relatively large unit of land containing a distinct assemblage of natural communities and species, with boundaries that approximate the original extent of natural communities prior to major land use changes. The World Wildlife Fund (WWF) has developed a map of the world that identifies and characterizes 867 terrestrial ecoregions. The map's resolution is high enough to make it suitable for designing networks of conservation areas.

7. Terrestrial ecoregions are defined with respect to the original extent of biodiversity, while the focus of the GEF framework is on countries. Terrestrial ecoregion boundaries often overlap national boundaries, which are in most instances unrelated to the geographic distribution of biodiversity. Country Ecoregion Components (CECs) are identified by overlaying the biologically-determined ecoregion map of the world on a politically-determined map of country boundaries. Given the focus on current actions and projects, only areas that remain currently uncleared for agriculture or urban settlement are considered. Within countries, CECs reflect the distributions of local fauna and flora.

8. A CEC is defined as the part of a terrestrial ecoregion within a country's boundaries that currently remains uncleared for agriculture or urban settlement. For instance, an ecoregion that runs across four different countries is divided into four CECs, each containing the part of the ecoregion that currently remains uncleared within the respective country's borders. Making this distinction divides the 867 terrestrial ecoregions into approximately 1,700 CECs. Of these, 1,326 CECs are in GEF-recipient countries and are the focus of analysis for the GEF STAR.

Score Terrestrial Country-Ecoregion Components

9. The second step in computing the terrestrial score of each country is characterizing each CEC with four indicators – represented species, threatened species, represented ecoregions, and threatened ecoregions -- each of which is discussed below.

Represented Species

10. The represented species score is obtained by averaging scores for all the available taxonomic groups. The current score is based on data for mammals, birds, amphibians, reptiles, freshwater fish, and vascular plants. Additional taxonomic groups will be added as data become available.

11. This indicator is aggregated from separate analyses of the remaining habitat for each species. Only species that have been evaluated in a manner that is comprehensive and meaningful for cross-country comparisons are included. Each species receives a total credit of 1 globally, which is distributed across CECs in proportion to the remaining habitat for the species. For instance, if 60 percent of the habitat for a species lies in a particular CEC, and the remaining 40 percent is distributed evenly across two other CECs, the three CECs receive credits of 0.6, 0.2, and 0.2 for that species. All other CECs do not receive any credits for the species. For each CEC, species credits are totaled for each of the taxonomic groups (or taxa) and normalized using the total number of species in the taxa worldwide. The CEC score for represented species is computed as the average of the normalized credits for the six taxonomic groups for which data are currently available. This approach gives equal representation to the taxa at the world scale.

Threatened Species

12. Computation of the threatened species score is identical to computation of the represented species score, after one initial adjustment. In this adjustment, species receive credits based on their threat-class, rather than uniform credits of 1. The current score is based on threat-class information for mammals, birds and amphibians. Additional taxonomic groups will be added as data become available.

13. The threatened species score recognizes the greater urgency of protecting species that face significant risks of extinction. After evaluating global threats to each existing species, IUCN classifies it into one of six categories: extinct in the wild, critically endangered, endangered, vulnerable, near threatened and least concern. Taking scientifically-estimated extinction probabilities and conservation priorities into account, the six categories are respectively assigned weights of 10, 10, 6.7, 1, 0 and 0.

14. The threatened species credits for each CEC are aggregated separately for mammals, amphibians and birds, and normalized by the total number of threatened species credits in each taxon. The threatened species score averages the normalized credits for the three taxa.

Represented Ecoregions

15. Each terrestrial CEC represents an ecoregion with unique characteristics from a global perspective. Each ecoregion receives a total credit of 1 globally, which is distributed across the CECs comprising that ecoregion in proportion to the remaining habitat (land that is uncleared for agriculture or urban settlement). This index captures the uniqueness of each CEC as well as its scale. The wide array of factors encompassed in an ecoregion ensures that non-species-related components of biodiversity are reasonably represented in the terrestrial score. This index will be replaced with more precise indicators of genetic diversity, ecosystem services and other components of biodiversity as comprehensive data become available for all GEF-eligible countries.

Threatened Ecoregions

16. The threatened ecoregion score recognizes the greater urgency of protecting ecoregions that face significant risks of habitat destruction. The World Wildlife Fund classifies all ecoregions into three groups: critical/endangered, vulnerable and stable. Taking scientific estimates of habitat-degradation rates into account, the three categories are respectively assigned threat credits of 4, 2 and 1. The threat credit for each ecoregion is distributed across its constituent CECs in proportion to the remaining habitat. This index captures the scale, uniqueness and threat level of each CEC. Like the represented ecoregion index, it will be replaced by more precise indicators of genetic diversity, ecosystem services and other components of biodiversity as comprehensive data become available for all GEF-eligible countries.

Determine Composite Terrestrial Scores for Each Country-Ecoregion Component

17. The third step in determining a country's terrestrial score is to compute the composite terrestrial score for each CEC. This is defined as the weighted average of the four scaled biodiversity indicators, as shown in the following equation. The composite scores are sensitive to the weights, which are chosen to reflect the relative contribution of each indicator to the GEF's objectives. After extensive consultation with biodiversity experts on current best practice, the base-case simulations give larger weights to species indicators because these are characterized with greater certainty. Further, threatened species are given additional weight through the inclusion of the threatened species indicator which accounts for the threatened status of species. Similarly, threatened ecoregions are given additional weight compared to less threatened ecoregions through the inclusion of the threatened ecoregion. The weights are defined below.

CEC Biodiversity Score = WT1 x Represented Species + WT2 x Threatened Species
+ WT3 x Represented Ecoregion + WT4 x Threatened Ecoregion

Where WT1+WT2+WT3+WT4 = 1

WT1=0.55; WT2=0.20; WT3=0.15; WT4=0.10

Compute the Terrestrial Biodiversity Score for Each Country

The fourth step in determining the terrestrial score for a country is to sum the terrestrial scores for all CECs within it.

Marine Biodiversity Score for Each Country

18. The marine score for each country is developed in a much simpler way, because of the lack of detailed subnational data. The available information registers the presence of specific fish species within a country's waters, but does not provide data on precise ranges, extinction threats, or relative uniqueness of marine ecosystems. Consequently, the marine score is based solely on represented fish species. Each evaluated species receives a total credit of 1 globally, which is distributed across countries in proportion to the estimated habitat for the species in the respective country. The marine score for a country is the sum of the credits from all of the marine species located in the territorial waters of the country.

OPTION 2: Red List plus Protected Areas (Red List portion based on June 2009 STAR Council Document (GEF/C.35/4/Rev.1))

Biodiversity Focal Area GBI indicator

19. In an attempt to simplify the Biodiversity GBI, it had been proposed that the IUCN Red List of the Threatened Species (IUCN Red List) be used in the STAR as a measure of the potential benefits that would accrue from GEF investment in a given country. Strong justifications supporting this proposal include:

(a) Authority: The IUCN Red List is the most widely accepted metric of extinction risk, and it is used as an indicator for the CBD 2010 Target and for the MDG 7 on environmental sustainability.

(b) Simplicity: While data from the IUCN Red List are incorporated into the existing GBI, the current GBI formulation is complicated. Deriving the measure of potential biodiversity benefit wholly from the IUCN Red List would have a great advantage of simplicity and would make the GBI more easily understood.

(c) Performance tracking: The IUCN Red List is updated annually, with changes in status tracked differently from changes in knowledge.

(d) Biome-coverage: The GBI has been criticized for failing to incorporate the benefits of conserving aquatic biodiversity – it minimally incorporates measures of potential freshwater or marine biodiversity benefits. By contrast, comprehensively assessed taxonomic groups on the IUCN Red List incorporate three predominately marine groups (sharks and rays, groupers, and corals) and two predominantly freshwater ones (turtles and amphibians), as well as four predominantly terrestrial groups (mammals, birds, conifers, cycads.)

20. A comparison of the benefit scores and ranks for countries using the IUCN Red List (literally, number of threatened species occurring in a given country) with those for the existing GBI reveals a number of interesting features:

(a) National percentage scores and ranks are broadly similar between the IUCN Red List and the GBI.

(b) Very few countries have scores that differ widely between the two measures. Three South-east Asian countries have a notably higher percentage score using the IUCN Red List: Malaysia, Thailand, and Vietnam. Conversely, three countries have a notably lower score from the past GBI rank: Brazil (although it still scores high using the IUCN Red List), Russia, and the Democratic Republic of Congo (DRC).

(c) (c) Comparison of national ranks using the two measures may be more informative, because this will determine the GEF allocation under the STAR. About a dozen countries make large jumps in rank using the IUCN Red List compared to the existing GBI. By contrast, just a handful of countries make large drops down. This is balanced out by the fact that many countries shift down a few rank positions.

(d) Most of the countries that make large jumps in rank positions using the IUCN Red List are island nations, especially those in the Pacific. Island biodiversity in general is heavily threatened by human impacts, and so island nations should be expected to rank highly. These large jumps in rank are likely explained by two additional factors. First, these nations have large areas of marine territory, and so the incorporation of measures of marine biodiversity benefits increases their ranks. Second, the existing GBI biases towards large countries, and so small nations such as the Pacific islands tend to rank low through this measure.

(e) Three other countries that make large jumps in rank positions using the IUCN Red List are North-east African/Middle Eastern dry land countries: Jordan, Djibouti, and Eritrea. Bangladesh also makes a large jump up in rank.

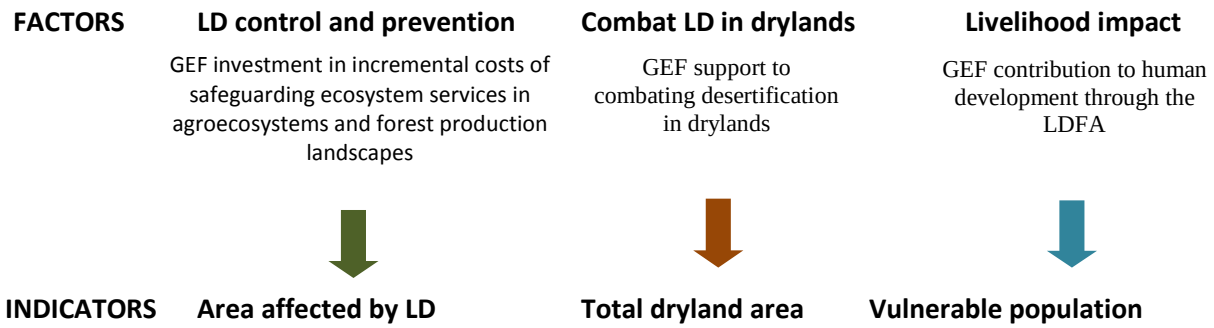
(f) The four countries that make large drops in rank using the IUCN Red List are Russia, DRC, Angola, and Zambia. These drops are likely due to the fact that the existing GBI is skewed towards large country size, as noted earlier, whereas the use of the IUCN Red List removes some of this bias.

21. Rather than using the Red List as the sole indicator for the biodiversity focal area, it was suggested that an ecosystem component be explored in conjunction with the Red List. The Secretariat experimented with this idea by introducing a protected area component and collaborated with STAP to develop an alternative option, drawing from three indicators: 1) the IUCN Red List of Threatened Species (IUCN Red List) 2) a country's share, expressed as a percentage, of the total global surface area of terrestrial and marine protected areas in GEF-eligible countries, and 3) the percentage of a country's area of land and territorial waters that is protected.

22. Given the lack of a global data set that covered ecosystem diversity, protected area coverage was selected as a proxy for ecosystem diversity, as properly designed protected area systems should protect a diversity of ecosystem types. In addition, protected area coverage rewarded response measures taken by countries to conserve biodiversity. A thorough analysis and a large number of simulations indicated that many difficulties arose with this model and the results did not resolve the issues identified during the last Council meeting. These deficits prevent this option from being recommended as originally envisaged. It has therefore been discarded.

GEF BENEFITS INDEX FOR LAND DEGRADATION (GBI_{LD})

1. The latest GBI for the Land Degradation (LD) Focal Area was designed to take into account three key factors in accordance with GEF mandate for financing: 1) the need for controlling and preventing land degradation in the context of land-based production systems; 2) the challenge of combating desertification in the drylands,[17] including the need for adaptation to drought risks; and 3) the need to address livelihoods of vulnerable populations. Proxy indicators were derived for each of these factors based on available data. The overall framing and rationale for factors and indicators used in the GBI is shown in the following diagram:



2. The indicators including sources of data are described as follows:

- **Land area affected** – Quantitative estimate of land area (in km^2 or as *percent of territory*) affected by LD as a proxy indicator for "loss of ecosystem function and productivity." The indicator was derived by Bai et al. (2008)[18] using normalized difference vegetation index or "NDVI," and currently represents the most feasible proxy for land degradation trends by country. Each country's share of the global total area affected was calculated for use in the GBI.

- **Drylands** – Drylands are predisposed to desertification as one of the most prevalent forms of LD, and a major factor influencing livelihoods of nearly a third of the world's population. Drylands are a priority of the UNCCD, signed now by 192 countries. It is therefore essential for the GBI to distinguish differential country opportunities with respect to drylands. Dryland area was based on data from the World Resources Institute/Earth Trends,[19] derived as proportion of each country's land area within arid, semi-arid and sub-humid zones as defined by the UNCCD.

- **Vulnerable population** – This indicator accounts for the fact that LD challenges human development because of its impact on poverty, especially in rural areas where people overwhelming depend on land. Rural population is a good proxy for rural poverty, especially where agricultural land use is primarily small-scale and subsistence-based. The indicator was

[17] The UNCCD defines drylands to include arid, semi-arid and sub-humid lands, with an aridity index between 0.05 and 0.65. This definition excludes deserts at one extreme and humid tropical forests at the other.
[18] Bai, Z.G., Dent, D.L., Olsson, L, and Schaepman, M.E. (2008). *Proxy global assessment of land degradation.* Soil Use and Management 24:223-234 (Note: Countries with no degradation were not listed)
[19] http://earthtrends.wri.org/searchable_db/index.php?theme=9

calculated as percentage of each country's total population, based on data from the World Bank's World Development Report 2008.

3. The LD GBI for each country was calculated as a combination of all three indicators. In order to ensure an allocation system that is influenced by the overall need to combat LD and desertification in the context of human development, the three indices were assigned weights as follows: 60% to dryland area, 20% to rural population, and 20% to land area affected. The resulting algorithm is as follows:

GBI_{LD} = (0.2*global share of land area affected) + (0.6*proportion of dryland area) + (0.2*proportion of rural population)

Results of Simulations

4. A total of 141 eligible countries were included in the simulation, with the resource envelope for LD set at $400 million under the $5 billion replenishment scenario. The highest allocation of $12.03 million went to China, followed by the Russian Federation at $10.58 million. Seven countries were assigned the floor allocation of $0.5 million. The following trends were also observed:

- African countries overall received a total allocation of $169 million (42%), of which $151 million (38%) was allocated to countries in Sub-Saharan Africa. These figures are similar to GEF-4 investments in the LD focal area.

- All countries with drylands (arid, semi-arid, sub-humid areas) within their national boundary were allocated a total of $348 million (87%). Of this total amount, $226 million (56%) was allocated to countries with more than half of their land area in drylands.

ANNEX 7

GEF BENEFITS INDEX FOR PERSISTENT ORGANIC POLLUTANTS (GBI_{POPs})

1. Various options to derive a GBI for POPs were explored by the GEF Secretariat in collaboration with the GEF Scientific and Technical Advisory Panel (STAP). A consultant of high scientific standing and with an in-depth understanding of the technical aspects of the Stockholm Convention, as well as hands-on experience of the technical and practical aspects of POPs inventories was identified, with the help of the STAP, and contracted to support the Secretariat in exploring the following three options:

- Indicators based on potential for exposure to POPs and for mitigation, based on available datasets with baseline information;

- Indicators based on potential for exposure to POPs and for mitigation, based on what is known through the National Implementation Plans; and

- Broad proxy indicators that would have wide coverage.

Availability of Outside Datasets

2. Unfortunately, as anticipated, further investigation and discussions with STAP confirmed that there are no outside datasets directly related to POPs use, consumption, production, and releases with broad coverage in GEF partner countries. There is not for example the equivalent of the quality and quantity of data available with regards biodiversity, the results of centuries of classification of nature. Data regarding individual POPs in GEF client countries is extremely poor and fragmented. At best, as a result of a project in a country or a region, something might be known of the distribution of a particular chemical at a given time, but not with the comparability and coverage required to derive a benefit index for the STAR.

National Implementation Plans

3. As of September 2009, the GEF had financed the preparation of 135 national implementation plans (NIPs). It follows from the previous section that the NIPs represent the only available source of information on POPs use/distribution/consumption covering a large number of GEF eligible countries. Unfortunately, there are severe limitations to using them directly to derive indicators:

- Only 72 NIPs have been submitted to the Stockholm Convention Secretariat and are publicly available.

- Although NIPs provide a starting point for ascertaining the magnitude of production, use, or releases of the 12 original POPs in a country, their usefulness in providing comparable data for countries is limited by the degree of variation in the depth of the analyses across countries. By way of example, Nigeria and St Lucia have received a comparable size grant to develop their NIPs. The detail of inventory cannot be expected to be comparable.

- The Convention has just included 9 new POPs to expand the list to a total of 21 POPs. Even less is known about the production, use or release of the new additional POPs in GEF client countries, and in any event, use patterns are likely to be different from the existing POPs.

- There are a number of uncertainties regarding unintentionally produced POPs (“dioxins and furans”), which it is envisaged would receive more ambitious and systematic attention under GEF-5. The overall contribution of open-burning to the inventories is still the subject of academic debate, and so is the contribution of poor domestic waste management practices.

Even for better-defined industrial processes, the contribution of specific processes in developing countries is still subject to discussions: emission factors that are the basis for baseline assessments are still mostly based on emission factors extrapolated from processes in industrialized countries. It is estimated that some processes that are typical of developing country situations might emit three orders of magnitude more than predicted with extrapolated emission factors.

4. Irrespective of the overwhelming limitation posed by the fact that only a little over half the NIPs have been submitted, the consultant has analyzed a cohort of 15 countries, representing all regions and a broad range of socio-economic and geographic characteristics, in an attempt to extract information thereof to see whether it would be possible to construct a composite "POPs investment need" index. Unfortunately, as anticipated, this effort has not been fruitful because the information on POPs waste in particular is too fragmented.

5. It should be noted that it was recognized during the preparation of the GEF guidelines for NIP development that POPs inventorying was an iterative process, and that the level of detail contained in the first iteration of most NIPs would be sufficient for priority setting only, but would not yield accurate and detailed information. In any event, at this time, information within the NIPs is too disparate and incomplete to be recommended for use as basis to deriving GBI indicators.

Broad Proxy Indicators

6. Should Council include the POPs focal area in the STAR , two proxy indicators are proposed to calculate a GBI for POPs: i) arable and permanent cropland ("APC" - data from the Food and Agriculture Organization of the United Nations for 2003) and ii) industry value added ("IVA" - data from the World Bank, in current US$, for 2003).

7. POPs can be categorized as industrial chemicals (example PCBs), pesticides (example DDT, lindane), or unintentional by-products (example dioxins and furans). The latter include anthropogenic and natural sources. Anthropogenic sources include industrial sources as well as products of combustion processes, including open burning. Overall, the proposed indicators can therefore defensibly be said to track most of the investment needs with regards to industrial POPs chemicals and the industrial sources of un-intentionally produced POPs, as well as investment and capacity building needs regarding pest management in general, bearing in mind that many POPs are pesticides.

8. The Secretariat has worked to further justify and confirm the validly of the original assumptions laid out in the June 2009 Council paper (GEF/C.35/4.Rev.1) for the use of these indicators as described below:

- PCBs, the management, phase out, and disposal of which is a significant share of the GEF portfolio, were used mainly (though by no means exclusively) in large quantities in electrical equipment in transformers and condensers. Their use before 1980 was widespread. Therefore, it stands to reason that their distribution is closely linked to electrification, itself closely linked with industrial development, and, therefore, to industry value added. In practice, this is difficult to demonstrate because one would need to correlate PCB inventories where these are reasonably accurate with industry value added. The problem is that in these countries typically the PCB inventory is low or even "0," as they have achieved a complete phase-out.

- For industrial sources of dioxins, available datasets were analysed to confirm the validity of the assumption that their emissions would be tracked by IVA. Emissions for 1995/97 in 17 countries of Western Europe, where the inventories are presumed to be relatively accurate, were correlated with IVA. The regression coefficient is 0.74. The correlation is even stronger with a different set of 11 countries that are newly part of the EU, plus Turkey, leading to a regression coefficient of 0.85.

- A similar exercise correlated dioxins inventories from 13 GEF financed NIPs with IVA. The correlation is very high because of the presence of China in that cohort. Even without China, however, the regression coefficient is still greater than 0.5 which is deemed acceptable, considering that the NIP inventories were all based on the UNEP toolkit with the limitations that this raises.

- One of the main criticism that could be raised regarding the IVA indicator is that it does not track non-industrial sources of dioxins. The relative weight of these various sources is still a matter of scientific debate, but it is in any case likely that open burning is a non-negligible source of dioxin emissions in the developing world.

- Regarding the APC indicator, it was correlated with data on pesticides consumption from the FAO (year 1998) for 47 countries, where such data exists, leading to a regression coefficient of 0.80. The cohort includes countries from all regions and all sizes, from India to Saint Lucia. The FAO notes that "a strict inter-country comparison on the basis of the database is not feasible." The database is based on country reporting of quantities of pesticides, either in broad categories (example "herbicides") or for specific categories of pesticides (example "triazine"). For each country, we added up all categories and it is the total for all entries, in kg active ingredients, that is correlated to the land area.

- However, the APC indicator can be criticized for a number of reasons, including: pesticides use intensity reported in the literature (i.e. amount per ha) is very variable; many of the POPs pesticides are insecticides that tend to be used in targeted response to specific insects in specific areas, rather than being broadly correlated with land area under agriculture use; some important uses are not linked with agriculture, for example disease vector control; and reasons for accumulation of obsolete pesticides, for example, have to do with poor management practices that might not necessarily be tracked well by an indicator of coverage such as the APC. Moreover, the APC overlooks specific aspects of the production of lindane (a "new POPs"), namely that its production generates considerable amounts of POPs waste.

- Nevertheless, the APC indicator is defensible as a proxy for overall use of pest control chemicals, if not specifically POPs pesticides. It should also be emphasized that there is surprisingly limited data with wide coverage regarding pesticide consumption.

- Finally, and this is valid whichever option for the development of a GBI_{POP} would be pursued, there is no agreed methodology for balancing potential interventions, such as avoided releases of dioxins with the disposal of obsolete pesticides.

ANNEX 8

GEF-5 STAR SIMULATIONS

Country	GEF4 - RAF		GEF5					GEF5					GEF5				
	$3.1B		Scenario 1 - $5.0B					Scenario 2 - $6.5B					Scenario 3 - $9.0B				
	Initial allocation		STAR Simulation (M$)					STAR Simulation (M$)					STAR Simulation (M$)				
	CC	BD	CC	BD	LD	POPs	Sum	CC	BD	LD	POPs	Sum	CC	BD	LD	POPs	Sum
Afghanistan	Group	3.5	2.0	3.4	4.8	0.0	10.3	2.4	4.2	6.4	0.0	13.0	4.0	6.0	8.2	0.0	18.2
Albania	Group	Group	2.0	1.5	0.7	0.5	4.7	2.0	1.5	1.0	0.5	5.0	3.2	1.5	1.2	0.6	6.6
Algeria	7.6	3.7	12.3	4.0	2.5	5.5	24.4	17.1	4.9	3.3	6.3	31.5	27.7	7.0	4.3	8.6	47.6
Angola	Group	Group	7.0	7.3	0.5	1.7	16.6	9.7	8.9	0.5	2.0	21.1	15.8	12.7	0.5	2.7	31.7
Antigua and Barbuda	Group	Group	2.0	1.5	1.2	0.5	5.2	2.0	1.5	1.6	0.5	5.6	2.0	1.9	2.0	0.5	6.5
Argentina	13.3	14.5	27.1	15.1	6.3	8.4	57.0	37.5	18.3	8.3	9.7	73.8	60.9	26.3	10.8	13.2	111.2
Armenia	Group	Group	3.2	1.5	5.2	0.5	10.4	4.4	1.5	6.9	0.5	13.2	7.1	1.5	8.8	0.6	18.0
Azerbaijan	4.1	Group	8.8	1.5	4.3	0.9	15.5	12.1	1.5	5.7	1.0	20.4	19.7	1.9	7.4	1.4	30.4
Bahamas	Group	Group	2.0	4.5	0.0	0.5	7.0	2.0	5.4	0.0	0.5	7.9	2.0	7.8	0.0	0.5	10.3
Bangladesh	6.7	Group	12.7	1.9	1.4	3.1	19.1	17.6	2.3	1.8	3.5	25.2	28.6	3.3	2.4	4.8	39.1
Barbados	Group	Group	2.0	1.5	0.0	0.5	4.0	2.0	1.5	0.0	0.5	4.0	2.0	1.5	0.0	0.5	4.0
Belarus	7.9	Group	12.8	1.5	0.5	2.0	16.8	17.6	1.5	0.7	2.3	22.1	28.7	1.5	0.9	3.1	34.2
Belize	Group	Group	2.0	2.5	0.9	0.0	5.4	2.0	3.1	1.1	0.0	6.2	2.0	4.4	1.5	0.0	7.9
Benin	Group	Group	2.0	1.5	5.8	1.0	10.3	2.1	1.5	7.7	1.2	12.4	3.4	1.5	9.9	1.6	16.4
Bhutan	Group	Group	2.0	2.0	0.7	0.0	4.7	2.0	2.4	0.9	0.0	5.3	2.3	3.5	1.1	0.0	6.9
Bolivia, Plurinational State of	3.1	11.4	7.8	11.7	3.9	1.3	24.7	10.8	14.2	5.1	1.5	31.5	17.6	20.3	6.6	2.0	46.5
Bosnia and Herzegovina	Group	Group	3.7	1.5	0.8	0.0	6.0	5.1	1.5	1.1	0.0	7.7	8.4	1.5	1.4	0.0	11.3
Botswana	Group	Group	4.2	2.2	6.5	0.8	13.7	5.9	2.6	8.6	0.9	18.0	9.5	3.8	11.1	1.2	25.6
Brazil	38.1	63.2	73.3	71.7	9.3	21.7	176.0	101.3	86.9	12.3	24.8	225.3	164.8	124.6	15.9	34.0	339.3
Burkina Faso	Group	Group	4.3	1.5	6.3	1.6	13.7	5.9	1.5	8.4	1.8	17.6	9.7	1.5	10.8	2.5	24.4

Burundi	Group	Group	2.0	1.5	1.3	0.5	5.3	2.0	1.5	1.7	0.6	5.8	2.0	1.5	2.2	0.8	6.6
Cambodia	3.3	Group	2.9	3.9	1.5	1.2	9.6	4.0	4.7	2.0	1.4	12.1	6.5	6.8	2.6	1.9	17.8
Cameroon	Group	11.9	4.0	10.7	2.1	2.1	18.9	5.5	12.9	2.8	2.4	23.6	9.0	18.5	3.6	3.3	34.4
Cape Verde	Group	4.1	2.0	3.7	1.9	0.5	8.1	2.0	4.5	2.5	0.5	9.5	2.0	6.5	3.2	0.5	12.2
Central African Republic	Group	Group	2.4	1.7	2.2	0.6	7.0	3.3	2.1	2.9	0.7	9.0	5.4	3.0	3.8	0.9	13.1
Chad	Group	Group	2.9	2.0	3.4	0.8	9.1	4.1	2.4	4.5	1.0	11.9	6.6	3.4	5.8	1.3	17.1
Chile	6.1	15.7	12.2	18.9	2.5	3.8	37.4	16.8	22.9	3.3	4.3	47.4	27.4	32.8	4.3	5.9	70.4
China	150.0	44.3	213.6	54.5	12.0	36.0	316.1	288.0	66.0	15.9	40.8	410.7	459.0	94.6	20.5	55.2	629.3
Colombia	8.9	36.6	18.1	38.9	3.1	3.7	63.8	25.0	47.2	4.1	4.2	80.5	40.6	67.7	5.3	5.8	119.3
Comoros	Group	Group	2.0	2.2	0.9	0.5	5.6	2.0	2.6	1.2	0.5	6.3	2.0	3.8	1.5	0.5	7.8
Congo	Group	Group	2.0	3.4	1.3	0.5	7.3	2.7	4.2	1.8	0.5	9.1	4.4	6.0	2.3	0.7	13.3
Cook Islands	Group	Group	2.0	2.3	0.6	0.5	5.4	2.0	2.8	0.8	0.5	6.1	2.0	4.0	1.1	0.5	7.6
Costa Rica	Group	12.0	4.1	11.7	0.9	1.0	17.6	5.6	14.2	1.2	1.1	22.1	9.1	20.3	1.6	1.5	32.5
Côte d'Ivoire	Group	3.6	2.0	3.4	3.7	1.8	10.9	2.5	4.1	4.9	2.0	13.6	4.1	5.9	6.3	2.8	19.1
Croatia	0.0	Group	4.5	1.5	1.0	1.7	8.7	6.3	1.6	1.3	1.9	11.1	10.2	2.3	1.6	2.6	16.8
Cuba	4.2	14.7	5.9	11.9	1.4	2.0	21.2	8.1	14.4	1.8	2.3	26.7	13.2	20.6	2.4	3.2	39.4
Democratic People's Republic of Korea	6.4	Group	9.4	1.5	0.7	0.8	12.4	13.0	1.5	0.9	0.9	16.3	21.1	1.5	1.1	1.3	25.0
Democratic Republic of the Congo	Group	10.4	11.9	14.3	0.8	1.9	29.0	16.5	17.3	1.1	2.2	37.1	26.8	24.8	1.4	3.0	56.1
Djibouti	Group	Group	2.0	1.5	3.9	0.5	7.9	2.0	1.5	5.2	0.5	9.2	2.0	1.5	6.7	0.5	10.7
Dominica	Group	Group	2.0	1.5	0.5	0.5	4.5	2.0	1.7	0.6	0.5	4.8	2.0	2.4	0.8	0.5	5.7
Dominican Republic	Group	5.8	3.5	5.5	0.9	1.0	10.9	4.8	6.7	1.2	1.1	13.8	7.8	9.6	1.5	1.5	20.5
Ecuador	Group	23.2	5.4	25.1	4.2	1.9	36.6	7.5	30.4	5.6	2.2	45.6	12.2	43.6	7.2	3.0	65.9
Egypt	11.5	4.3	19.1	4.7	1.8	4.1	29.7	26.4	5.7	2.4	4.7	39.2	42.9	8.1	3.1	6.5	60.6
El Salvador	Group	Group	2.0	1.5	0.7	0.9	5.2	2.2	1.8	1.0	1.1	6.0	3.6	2.6	1.3	1.4	8.9
Equatorial Guinea	Group	Group	2.0	1.5	0.6	0.0	4.1	2.0	1.7	0.8	0.0	4.4	2.0	2.4	1.0	0.0	5.4
Eritrea	Group	Group	2.0	1.5	3.9	0.5	7.9	2.0	1.5	5.2	0.5	9.2	2.0	1.8	6.6	0.5	11.0
Ethiopia	4.9	7.7	8.7	8.3	5.3	3.0	25.3	12.0	10.0	7.0	3.4	32.5	19.6	14.4	9.1	4.7	47.7
Fiji	Group	5.1	2.0	4.8	0.8	0.5	8.1	2.0	5.9	1.0	0.5	9.3	2.0	8.4	1.3	0.5	12.2
Gabon	Group	Group	2.7	3.5	1.2	0.6	8.0	3.7	4.3	1.6	0.7	10.2	6.0	6.2	2.0	0.9	15.1

Gambia	Group	Group	2.0	1.5	5.6	0.5	9.6	2.0	1.5	7.4	0.5	11.4	2.0	1.5	9.6	0.5	13.6
Georgia	Group	Group	2.3	1.5	2.6	0.5	6.9	3.2	1.5	3.4	0.6	8.7	5.2	1.7	4.4	0.8	12.1
Ghana	Group	Group	3.3	2.7	4.7	2.0	12.7	4.5	3.3	6.2	2.3	16.3	7.3	4.7	8.0	3.2	23.2
Grenada	Group	Group	2.0	1.5	1.5	0.0	5.0	2.0	1.5	1.9	0.0	5.4	2.0	1.6	2.5	0.0	6.1
Guatemala	Group	8.2	3.1	8.3	1.2	1.4	13.9	4.2	10.1	1.6	1.6	17.4	6.9	14.4	2.0	2.1	25.5
Guinea	Group	Group	2.0	2.5	1.9	0.6	6.9	2.5	3.0	2.4	0.7	8.6	4.0	4.3	3.2	1.0	12.5
Guinea-Bissau	Group	Group	2.0	1.5	1.4	0.5	5.4	2.0	1.5	1.8	0.5	5.8	2.0	1.6	2.3	0.5	6.5
Guyana	Group	Group	2.0	3.4	1.4	0.5	7.3	2.3	4.1	1.9	0.5	8.8	3.7	5.9	2.4	0.5	12.5
Haiti	Group	4.1	2.0	4.7	1.0	0.0	7.7	2.0	5.7	1.3	0.0	9.1	2.0	8.2	1.7	0.0	11.9
Honduras	Group	6.8	2.5	7.5	1.0	0.8	11.8	3.5	9.1	1.3	0.9	14.8	5.7	13.0	1.7	1.2	21.6
India	74.9	29.6	123.4	31.1	6.3	32.3	193.2	170.5	37.7	8.4	36.9	253.5	277.4	54.0	10.8	50.6	392.9
Indonesia	16.3	41.4	39.8	56.1	5.2	13.3*	114.4	54.9	68.0	6.9	15.2*	145.0	89.4	97.5	8.9	20.8*	216.6
Iran (Islamic Republic of)	16.5	6.7	24.8	6.5	4.7	6.8	42.8	34.3	7.9	6.2	7.7	56.1	55.8	11.3	7.9	10.6	85.7
Iraq	Group	Group	0.0	1.5	0.0	0.0	1.5	0.0	1.5	0.0	0.0	1.5	0.0	1.5	0.0	0.0	1.5
Jamaica	Group	5.1	2.0	5.0	2.6	0.5	10.2	2.0	6.1	3.5	0.5	12.1	3.1	8.7	4.5	0.7	17.1
Jordan	Group	Group	2.8	1.5	4.3	0.5	9.1	3.8	1.5	5.7	0.6	11.6	6.2	1.5	7.4	0.8	15.9
Kazakhstan	13.5	5.5	21.0	5.0	6.5	5.0	37.5	29.0	6.0	8.6	5.7	49.4	47.2	8.7	11.0	7.9	74.8
Kenya	3.4	7.9	6.7	9.3	5.3	1.8	23.1	9.3	11.2	7.1	2.1	29.6	15.1	16.1	9.1	2.9	43.1
Kiribati	Group	Group	2.0	1.7	0.7	0.5	4.9	2.0	2.1	0.9	0.5	5.5	2.0	3.0	1.2	0.5	6.7
Kyrgyzstan	Group	Group	2.4	1.5	3.8	0.5	8.2	3.4	1.8	5.0	0.6	10.8	5.5	2.6	6.4	0.8	15.4
Lao People's Democratic Republic	Group	5.2	4.3	6.2	1.9	0.6	13.0	5.9	7.6	2.5	0.6	16.6	9.7	10.8	3.2	0.9	24.5
Lebanon	Group	Group	2.0	1.5	3.5	0.6	7.6	2.7	1.5	4.6	0.7	9.5	4.5	1.5	5.9	1.0	12.8
Lesotho	Group	Group	2.0	1.5	1.0	0.5	5.0	2.0	1.5	1.3	0.5	5.3	2.0	1.5	1.7	0.5	5.7
Liberia	Group	Group	2.0	2.5	0.8	0.5	5.8	2.0	3.0	1.0	0.5	6.6	2.0	4.4	1.3	0.5	8.2
Libyan Arab Jamahiriya	Group	Group	2.9	1.5	1.2	0.9	6.4	4.0	1.7	1.5	1.0	8.2	6.4	2.4	2.0	1.4	12.3
Madagascar	Group	24.2	5.8	26.7	3.6	1.4	37.5	8.0	32.4	4.7	1.6	46.7	12.9	46.4	6.1	2.2	67.7
Malawi	Group	4.2	2.0	4.5	1.5	1.0	8.9	2.1	5.4	1.9	1.1	10.5	3.4	7.8	2.5	1.5	15.2
Malaysia	11.3	15.2	19.0	15.1	1.8	7.0*	42.9	26.3	18.3	2.4	8.0*	54.9	42.7	26.3	3.1	11.0*	83.0
Maldives	Group	Group	2.0	2.7	1.2	0.5	6.3	2.0	3.2	1.5	0.5	7.3	2.0	4.6	2.0	0.5	9.1

Mali	Group	Group	4.8	2.0	5.1	1.4	13.3	6.6	2.5	6.7	1.6	17.4	10.7	3.5	8.6	2.3	25.1
Marshall Islands	Group	Group	2.0	2.1	0.5	0.5	5.1	2.0	2.6	0.5	0.5	5.6	2.0	3.7	0.5	0.5	6.7
Mauritania	Group	Group	2.3	2.1	3.6	0.5	8.5	3.2	2.6	4.7	0.5	11.0	5.2	3.7	6.1	0.5	15.5
Mauritius	Group	5.6	2.0	5.4	1.1	0.5	9.0	2.0	6.5	1.5	0.5	10.5	2.0	9.3	1.9	0.5	13.8
Mexico	28.3	54.6	54.1	55.1	7.0	21.2	137.4	74.8	66.8	9.2	24.3	175.0	121.7	95.7	11.9	33.3	262.5
Micronesia (Federated States of)	Group	Group	2.0	3.7	1.1	0.5	7.3	2.0	4.4	1.5	0.5	8.4	2.0	6.4	1.9	0.5	10.8
Mongolia	Group	3.8	4.3	4.5	4.2	0.5	13.4	5.9	5.4	5.5	0.5	17.4	9.6	7.8	7.1	0.8	25.3
Montenegro	Group	Group	2.0	1.5	0.8	0.0	4.3	2.0	1.5	1.1	0.0	4.6	2.2	1.5	1.4	0.0	5.1
Morocco	3.8	4.3	7.8	5.1	6.3	4.1	23.4	10.8	6.2	8.4	4.7	30.0	17.6	8.9	10.8	6.4	43.6
Mozambique	Group	6.8	4.3	7.2	3.6	1.3	16.4	5.9	8.8	4.8	1.5	20.9	9.6	12.5	6.1	2.1	30.4
Myanmar	Group	Group	9.2	6.7	1.8	1.9	19.6	12.7	8.1	2.4	2.2	25.4	20.6	11.6	3.1	3.0	38.3
Namibia	Group	6.5	2.6	6.5	7.2	0.5	16.9	3.6	7.9	9.5	0.6	21.7	5.9	11.4	12.3	0.9	30.3
Nauru	Group	Group	2.0	1.5	0.5	0.5	4.5	2.0	1.5	0.5	0.5	4.5	2.0	1.5	0.5	0.5	4.5
Nepal	Group	Group	5.3	2.7	2.0	0.9	11.0	7.3	3.3	2.6	1.1	14.3	11.9	4.7	3.4	1.5	21.5
Nicaragua	Group	4.0	2.4	4.0	1.0	0.9	8.3	3.4	4.9	1.3	1.0	10.5	5.5	7.0	1.7	1.3	15.4
Niger	Group	Group	2.1	1.5	4.2	3.3	11.2	2.9	1.7	5.6	3.8	14.0	4.7	2.4	7.2	5.2	19.5
Nigeria	9.3	5.6	19.3	5.9	4.0	7.5	36.6	26.7	7.1	5.2	8.6	47.6	43.4	10.2	6.8	11.7	72.1
Niue	Group	Group	2.0	1.5	1.0	0.5	5.0	2.0	1.5	1.4	0.5	5.4	2.0	1.5	1.8	0.5	5.8
Pakistan	13.2	5.1	16.6	5.0	5.1	5.3	32.0	23.0	6.1	6.8	6.0	41.8	37.4	8.7	8.7	8.2	63.1
Palau	Group	Group	2.0	2.0	0.5	0.0	4.5	2.0	2.5	0.6	0.0	5.1	2.0	3.5	0.8	0.0	6.3
Panama	Group	11.2	2.9	11.7	0.6	0.6	15.7	4.0	14.1	0.8	0.6	19.6	6.5	20.3	1.1	0.9	28.7
Papua New Guinea	Group	12.5	2.2	13.8	1.5	0.5	17.9	3.0	16.7	2.0	0.5	22.2	4.8	24.0	2.5	0.5	31.9
Paraguay	Group	Group	3.9	3.1	3.5	1.0	11.5	5.3	3.7	4.7	1.2	14.9	8.7	5.3	6.0	1.6	21.6
Peru	4.6	25.3	11.6	27.1	3.7	3.0	45.4	16.1	32.8	4.9	3.4	57.2	26.2	47.1	6.4	4.7	84.3
Philippines	6.6	21.3	11.8	26.8	1.3	4.7	44.6	16.3	32.5	1.8	5.3	55.9	26.5	46.6	2.3	7.3	82.7
Republic of Moldova	Group	Group	2.2	1.5	6.1	0.8	10.6	3.1	1.5	8.0	0.9	13.5	5.0	1.5	10.3	1.3	18.1
Russian Federation	72.5	25.3	117.7	25.5	10.6	24.4*	178.1	162.5	30.9	14.0	27.9*	235.3	264.5	44.2	18.0	38.2*	364.9
Rwanda	Group	Group	2.0	1.5	1.3	0.6	5.5	2.0	1.8	1.8	0.7	6.2	2.3	2.5	2.3	1.0	8.0
Saint Kitts and Nevis	Group	Group	2.0	1.5	1.2	0.5	5.2	2.0	1.5	1.6	0.5	5.6	2.0	1.5	2.1	0.5	6.1

Saint Lucia	Group	Group	2.0	1.9	1.1	0.5	5.5	2.0	2.3	1.4	0.5	6.3	2.0	3.4	1.8	0.5	7.7
Saint Vincent and the Grenadines	Group	Group	2.0	1.6	0.9	0.5	4.9	2.0	1.9	1.2	0.5	5.6	2.0	2.7	1.5	0.5	6.7
Samoa	Group	Group	2.0	2.5	1.2	0.5	6.2	2.0	3.1	1.6	0.5	7.1	2.0	4.4	2.0	0.5	8.9
São Tomé and Principe	Group	Group	2.0	2.9	3.4	0.5	8.8	2.0	3.5	4.5	0.5	10.5	2.0	5.0	5.8	0.5	13.3
Senegal	Group	Group	3.2	1.9	6.2	1.1	12.4	4.5	2.3	8.2	1.2	16.1	7.3	3.3	10.5	1.7	22.7
Serbia	0.0	Group	6.0	1.5	0.9	1.3	9.6	8.3	1.5	1.2	1.5	12.4	13.5	1.5	1.5	2.0	18.4
Seychelles	Group	5.3	2.0	5.0	0.9	0.5	8.4	2.0	6.1	1.2	0.5	9.7	2.0	8.7	1.5	0.5	12.7
Sierra Leone	Group	Group	2.0	1.5	0.8	0.5	4.8	2.0	1.8	1.1	0.5	5.4	2.0	2.6	1.4	0.5	6.5
Solomon Islands	Group	Group	2.0	3.7	0.8	0.5	7.0	2.0	4.5	1.1	0.5	8.1	2.0	6.4	1.4	0.5	10.3
South Africa	23.9	22.5	34.5	22.4	6.6	8.3	71.8	47.6	27.2	8.7	9.5	93.0	77.5	39.0	11.3	13.0	140.7
Sri Lanka	Group	6.4	3.6	8.0	2.7	1.2	15.5	4.9	9.7	3.5	1.4	19.6	8.0	14.0	4.6	1.9	28.5
Sudan	5.7	4.3	12.0	3.8	3.4	2.9	22.0	16.5	4.6	4.5	3.3	28.9	26.9	6.7	5.8	4.5	43.8
Suriname	Group	0.0	2.0	3.1	0.7	0.0	5.8	2.2	3.8	0.9	0.0	6.9	3.6	5.5	1.2	0.0	10.3
Swaziland	Group	Group	2.0	1.5	3.3	0.5	7.3	2.0	1.5	4.4	0.5	8.4	2.0	1.5	5.7	0.5	9.7
Syrian Arab Republic	4.9	Group	7.2	1.5	5.4	2.0	16.1	10.0	1.5	7.1	2.3	20.9	16.3	2.2	9.2	3.2	30.8
Tajikistan	Group	Group	2.0	1.5	3.0	0.5	7.0	2.0	1.5	4.0	0.5	8.0	3.3	1.8	5.1	0.7	11.0
Thailand	14.7	9.2	26.8	9.3	3.1	9.2	48.5	37.1	11.3	4.1	10.5	63.0	60.3	16.2	5.3	14.4	96.2
The former Yugoslav Republic of Macedonia	Group	Group	2.0	1.5	3.1	0.5	7.1	2.5	1.5	4.1	0.5	8.6	4.0	1.5	5.3	0.8	11.5
Timor-Leste	Group	Group	2.0	1.5	1.1	0.0	4.6	2.0	1.5	1.5	0.0	5.0	2.0	1.6	1.9	0.0	5.5
Togo	Group	Group	2.0	1.5	2.5	0.8	6.7	2.0	1.5	3.3	0.9	7.7	2.0	1.5	4.2	1.2	8.9
Tonga	Group	Group	2.0	1.7	1.0	0.0	4.6	2.0	2.0	1.3	0.0	5.3	2.0	2.9	1.6	0.0	6.5
Trinidad and Tobago	Group	Group	4.0	2.9	1.6	0.8	9.2	5.5	3.5	2.1	0.9	11.9	8.9	5.0	2.7	1.2	17.8
Tunisia	0.0	Group	5.3	1.5	6.7	2.6	16.1	7.4	1.5	8.8	3.0	20.7	12.0	1.9	11.4	4.1	29.4
Turkey	17.5	6.1	24.5	5.9	4.3	9.1*	43.8	33.8	7.2	5.7	10.4*	57.1	55.0	10.3	7.3	14.2*	86.9
Turkmenistan	0.0	Group	7.2	1.8	4.1	0.0	13.1	10.0	2.1	5.4	0.0	17.5	16.2	3.1	7.0	0.0	26.3
Tuvalu	Group	Group	2.0	1.5	0.8	0.5	4.8	2.0	1.5	1.0	0.5	5.0	2.0	1.5	1.3	0.5	5.3
Uganda	3.1	4.0	6.1	3.9	2.7	2.4	15.2	8.5	4.7	3.6	2.8	19.6	13.8	6.8	4.7	3.8	29.0
Ukraine	18.9	Group	30.0	1.5	3.7	6.7	41.9	41.5	1.5	4.9	7.6	55.5	67.5	1.5	6.4	10.4	85.8

United Republic of Tanzania	4.8	12.8	10.4	14.2	7.0	1.8	33.3	14.3	17.2	9.2	2.0	42.8	23.3	24.7	11.9	2.8	62.6
Uruguay	Group	Group	4.7	2.1	0.8	1.0	8.6	6.5	2.5	1.1	1.1	11.2	10.6	3.6	1.4	1.5	17.1
Uzbekistan	9.3	Group	16.9	1.7	6.1	0.0	24.7	23.3	2.0	8.1	0.0	33.4	37.9	2.9	10.5	0.0	51.3
Vanuatu	Group	Group	2.0	2.7	1.1	0.5	6.3	2.0	3.2	1.5	0.5	7.2	2.0	4.6	1.9	0.5	9.0
Venezuela (Bolivarian Republic of)	8.8	16.7	16.1	15.3	1.2	3.3	35.8	22.2	18.5	1.6	3.8	46.1	36.1	26.5	2.1	5.2	69.9
Viet Nam	8.5	10.2	18.3	12.3	1.9	3.8	36.3	25.3	15.0	2.5	4.3	47.1	41.2	21.5	3.2	5.9	71.8
Yemen	Group	Group	3.5	4.4	2.6	1.1	11.7	4.9	5.3	3.5	1.3	15.0	8.0	7.6	4.5	1.8	21.8
Zambia	Group	5.1	5.1	4.5	3.9	1.7	15.2	7.1	5.4	5.1	1.9	19.6	11.5	7.8	6.6	2.6	28.5
Zimbabwe	Group	Group	2.6	1.9	3.9	0.0	8.5	3.6	2.3	5.2	0.0	11.1	5.9	3.4	6.7	0.0	15.9
Total (M$)	751.4	754.3	1424.0	1000.0	400.0	360.0	**3184.0**	1920.0	1200.0	528.0	408.0	**4056.0**	3060.0	1700.0	680.0	552.0	**5992.0**

* Although these (four) countries are yet to ratify the Stockholm Convention, they have been taken into account in the simulations for the POPs focal area in the event that they might ratify the Convention early in GEF-5. Because of the significant size of these countries' allocations, doing otherwise could cause a significant drop in the resources available to the other countries after reallocation of resources and would disrupt programming. In the event that a country were not yet an eligible party by the time of a mid-term reallocation exercise, the resources previously held up for that country would be freed for reallocation.