

# **Financing Protection of the Global Commons**

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The Case for a Green Planet Contribution

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## Resource Flows and Funding Needs

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It is important to recognize the inherently political nature of defining funding needs for global environmental protection. There is substantial literature on environmental cost valuation and the problems associated with assigning monetary values to environmental benefits.<sup>7</sup> Methodological problems for arriving at meaningful figures are compounded when global environmental objectives are the target. How can we measure the value of keeping a particular species from becoming extinct or a pristine ecosystem from being destroyed? How much biodiversity should the world conserve and how much of the remaining primary forest stands are worth protecting, and at what costs? How shall we account for intergenerational trade-offs between today's national development interests and long-term global concerns? Costs and benefits of protecting international waters are equally difficult to estimate. Many studies have attempted to quantify impacts of climate change and costs of greenhouse gas emission reductions, but modeling exercises have produced wide-ranging results depending on the baseline assumptions adopted,

for example regarding GDP growth rates, rates of technological change, pricing regimes, discount rates, and reduction targets.<sup>8</sup>

Environmental evaluation is an essential tool for increasing understanding of problems' magnitudes, but it can ultimately only inform, not replace, political decisions as to how much should be invested into prevention and conservation efforts. It is, accordingly, not possible to exactly define the funding needs for "adequate" protection of global commons. The pragmatic approach is to estimate funding needs for reasonably well defined intervention opportunities and to attempt to match this with the citizens' willingness to pay for global environmental protection.

Existing best estimates suggest that available resources for global environmental efforts are very small compared to today's investment needs. For example, the cost of conserving critical biodiversity has been estimated at around \$20 billion per year, while total national expenditures in 1992 only covered ap-

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7 For a policy-oriented overview of environmental valuation methods, see, for example, OECD (1998a), for a recent collection of review articles related to the subject, see Terry Barker and Jonathan Köhler, eds. (1998). Ståle Navrud and Gerald Pruckner (1997) find that environmental valuation methods influence policy decisions much more in the United States than in Europe. This probably relates to culturally different approaches to environmental policy making. In many European countries, the precautionary principle allows more easily for environmental policy measures that do not have specific quantitatively defined targets, while in the United States environmental regulations generally target a specific quantified environmental or health policy objective, such as avoidance of a certain number of cancer death per 100,000 people.

8 The OECD has done considerable work on the overall economic effects of carbon taxes or emission quota allocations to different OECD countries. OECD (1995). For a discussion of different modeling approaches, see, for example, Florentin Krause et al. (1995).

proximately \$6 billion.<sup>9</sup> With regard to climate change, estimates of the costs of carbon emissions abatement have varied widely. What is clear is that there is a great potential for measures that would result in short-term cost savings as well as in carbon emission reductions. But it is also evident that implementation of such win-win opportunities alone will not realize enough carbon-emission abatement to significantly slow emissions growth in emerging economies.<sup>10</sup> Furthermore, even though win-win opportunities could theoretically produce considerable savings down the road, and could sometimes offset costs, various political and institutional barriers prevent large-scale investment in such activities.

The 1994 replenishment of the Global Environment Facility (GEF1) with two billion dollars—after the completion of a GEF pilot phase—was in itself an important accomplishment by the international community, particularly in view of the serious budget crisis in many countries. But it fell short of expectations. Funds made available to the GEF amount to, on the average, only about 60 cents annually for every OECD citizen. The most recent GEF replenishment, concluded in Spring 1998, amounts at best to a freeze of donor-country commitments to the level of GEF1.

Bilateral resource flows for global environmental measures in developing countries appear to have increased since the Rio conference, albeit from very low levels. Figures compiled by the OECD Development Assistance Committee (DAC) are very unreliable in this regard, due to considerable differences in reporting among OECD countries. Some countries include in their totals resource flows for projects that have mainly development benefits. On the other hand, some European countries have until recently

not consistently reported allocations for global environmental purposes to the DAC, adhering to the original idea that such resources would not be counted towards countries' development cooperation expenditures. An interpretation of DAC figures in light of some more detailed data reported by individual states to the GEF Performance Study Team suggests that financial resources dedicated to global environmental protection by sources other than the GEF have probably amounted to little more than those available through the GEF.<sup>11</sup>

The difficulties involved in providing resources for global environmental measures contrasts with the importance that countries purportedly assign global environmental protection and sustainable development. It is important to look at the factors that explain this discrepancy.

Funding levels for global environmental protection measures in developing countries are affected by national and international factors. On the national level, funding depends on political decisions to allocate budgetary resources in a context of scarce budget resources and great domestic competition. On the international level, major donors negotiate burden-sharing arrangements based on countries' overall capacity to pay in relation to other donors. The GEF was funded in much the same way as other multilateral funds after World War II. Although this helps ensure that all donor countries support the multilateral cooperation objective, it also ties the overall size of the multilateral fund to the smallest contribution of key donor countries, which is ultimately determined by the smallest common political denominator on the national level.<sup>12</sup>

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9 Figures are based on a study funded by the European Commission and conducted by the World Conservation Monitoring Centre (WCMC), which extrapolated from estimates provided in country studies commissioned by UNEP. Cited from BirdLife International (1996). For political and methodological reasons, the CBD has so far made no effort to estimate funding needs for biodiversity conservation. But the provision of financial resources remains high on the agenda of every Conference of Parties to the CBD. See note by CBD secretariat, UNEP/CBD/COP/5/14, 15 November 1999. See also national reports to the CBD, some of which contain estimates of funding needs for national measures.

10 For example, investment needs in India for an emissions mitigation option that would not hurt the economy have been estimated to be \$135 billion for all economic sectors, Asian Development Bank (1994), p. 119.

11 Personal estimate based on experience with the GEF Performance Study (1998). The GEF Performance Study, however, concluded that the quality of available statistical data was insufficient to draw conclusions concerning the amount of resources made available through bilateral channels for exclusively global environmental purposes.

12 It appears that major European donor countries would have carried a GEF1 replenishment at three billion instead of two billion dollars. The two billion dollar level fell in place, once it was clear what the United States was willing to contribute (personal observation, first replenishment of GEF, December 1993).

The current fund-raising mechanism has the advantage that it has been tested in many contexts and has up to recently produced predictable results in terms of funding levels. But strains are becoming clearly visible, as replenishment negotiations for multilateral funds such as the IDA (International Development

Association) and the GEF take place in a setting defined by a general aid fatigue, increased expectations for private sector activism, and the fact that some important donors are in arrears even on payments to cover commitments made for previous financing periods.



## Weaknesses of the Current Fund-Raising Mechanism

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The current system of raising funds for global environmental protection has characteristics that must be considered weaknesses in terms of facilitating the provision of adequate resources. A key weakness is the GEF's close association with traditional development cooperation. In practice, the perception is often that the GEF is simply another multilateral fund for development cooperation. In the case of many donors, funding for global environmental protection measures in developing countries comes out of a budget line for multilateral and bilateral development cooperation.<sup>13</sup> In some countries, the provision of GEF funds therefore has to compete with funding for traditional development cooperation programs, even though international environmental agreements define GEF funds as compensatory funding for global environmental benefits and not as funding for the national development benefits of the recipient country.

Development assistance flows have declined significantly in recent years. Overall ODA disbursements to developing countries and multilateral organizations were \$48 billion in 1997, a significant decline of 12.8 percent from the 1996 level, which was in turn down 4 percent from 1995 (at constant prices and exchange rates). Current levels are well below the \$61 billion reached in 1992, the year of the UN Conference on Environment and Development. The picture among

DAC countries, however, is very uneven (See Annex 1). Fourteen countries in fact show increases in their ODA budgets. But this is offset by steep declines in some large DAC countries, notably the United States, where the ODA figure for 1997 dropped by 28 percent (but has increased slightly again in 1998).

To the extent that allocation of funds for global environmental protection measures is linked institutionally and politically to the provision of funds for development cooperation, the allocation of such resources faces similar constraints. And although there is evidence that in most countries GEF contributions have been better protected from budget cuts than those for development cooperation, they have not been unaffected.

The close association of fund-raising for global environmental protection measures with fund-raising for development cooperation is likely to work against increases in funding for the former. The role of development cooperation in the new world economy is changing quickly. Many developing countries are emerging as future economic powers and foreign direct investment flows are the main source of foreign financing for them.<sup>14</sup> Donor countries have increasingly reduced or phased out aid programs to higher income developing countries. Lumping resource allo-

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13 Personal communication with Frederik Van Bolhuis, GEF Secretariat.

14 Private flows at market terms from OECD countries to developing countries had dropped to \$22 billion in 1986-87, but increased to \$128 billion by 1997. OECD (1999c). A World Bank study put total net private capital flows into developing countries at \$240 billion in 1996. However, only 12 developing countries accounted for 80 percent of these flows. World Bank (1997).

cation for global environmental protection with development cooperation will automatically lock resource allocation for this particular purpose into the overall budgetary framework for development cooperation.

Even where political support for global environmental protection appears to be stronger than for general development cooperation, existing institutional structures may prevent commensurate attention to this issue. Development aid or treasury ministries are responsible for many multilateral funds and bilateral programs and work within a given budget framework. There is little incentive to push for larger allocations for global environmental protection measures if this must reduce resources allocated to other ministry objectives. Similarly, across-the-board budget cuts mandated by the legislature will affect all budget lines of the ministry, and make increases in a single budget line difficult.<sup>15</sup>

National priorities also work against resource allocation for addressing global environmental concerns. Budgetary appropriations are biased towards domestic programs, and a great many domestic programs compete for limited resources. Experience over the last few years shows how vulnerable to shifts in domestic political agendas the budgets of some multilateral funding mechanisms can be. Furthermore, long-term programs with global objectives typically lack strong political constituencies.

One can respond to the above observation with the argument that governments will find adequate resources if they consider these to be necessary. Or in other words, once the political system has processed available information and developed a consensus on the scale of the problem, governments will allocate sufficient funds to solve it. This, however, assumes that objective decisions concerning allocation of public resources are made, based on absolute, not relative, priority rankings among policy concerns. It also assumes that policy makers are fully informed and unaffected by reelection desires and related local policy priorities, which color legislative agendas and budget battles in practically all countries. The above argument also neglects the difficulties associated with developing long-term public policy in situations where short-term considerations and commercial interests interfere with such objectives.<sup>16</sup>

An obvious conceptual weakness of the current fund-raising system for global environmental protection is that no direct link exists between fund-raising and the economic activities that cause global environmental problems. This is at odds with the polluter-pays principle, which OECD countries adopted in 1972 and which has provided the basis for increased use of environmental charges and taxes on the national level.

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15 Personal knowledge about budgetary processes in some important GEF donor countries during the period 1990 to 1994.

16 For more in-depth discussion of this, see, e.g., Cléménçon (1995, 1997).

## Why a New Approach Could Help

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The transparency of policy making would be greatly increased if fund-raising for addressing global environmental issues were to be directly linked to consumption patterns on the individual level. In OECD countries, general public support for activities to safeguard the global environment tends to be broad-based, albeit poorly organized and easily crowded out by national policy priorities (discussed further down). A basic premise is that the best fund-raising mechanisms would be able to capitalize on latent public support for environmental protection. A small individual contribution, perhaps identified as “green planet contribution”—to avoid such ugly words as “tax” or “charge”—would provide such a linkage. Such an approach could reduce the need for repeated burden-sharing negotiations among nation states, and help reduce competition with domestic policy priorities. Over time, this would help secure larger and sustainable financial flows for global environmental protection activities around the world, particularly because very small user fees on the individual level could raise revenues well above what is made available today for the GEF.

On the international level, the polluter-pays principle is arguably already recognized under the current system because OECD donor countries jointly accept their responsibility as main polluters, and recognize the right of developing countries to be compensated for measures to reduce pressure on the global environment. But this approach essentially divides the

world into a Northern industrialized and Southern developing hemisphere. It ignores great differences within these very heterogeneous groups of countries. A consistent recognition of such differences for burden-sharing purposes would require linking countries’ contributions to environmental impact indicators, such as per capita CO<sub>2</sub> emissions or consumption of non-renewable resources.

But experience shows that the politics of negotiating burden-sharing arrangements among nation-states are very complex, particularly if negotiations focus on distributing blame or responsibility for greenhouse gas emissions. Negatively framed negotiations tend to generate uncooperative negotiating behavior. Game theoretical models illustrate that cost avoidance rather than real problem solving becomes the rational strategic choice for countries participating in such negotiations.<sup>17</sup> Countries that emerge with the smallest relative concessions tend to be regarded as winners and those agreeing to larger relative concessions are viewed as losers. Incentive structures in governments subsequently tend to award hard-line negotiators. Realistically, this cannot be avoided as long as the focus is on a systemic level that looks at aggregate data for nation states rather than at individual sources of pollution.

Fund-raising for global environmental protection may be more effective if the emphasis is shifted away from general national responsibilities and toward the

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<sup>17</sup> Game theory is a mainstay of the political science literature. It focuses primarily on nations’ negotiating incentives on security issues. For a basic introduction to modeling rational actor behavior, see, for example, Kenneth A. Oye (1992).

responsibilities of polluters and consumers of environmental resources. Negotiations on some type of global environment fee would focus on defining a “green planet contribution” that would be paid by the main consumers of environmental services regardless of where they live, yet would ultimately be negligible in terms of its per capita level. This would shift attention away from the aggregate figures that tend to lock countries into strategies of cost avoidance in relation to what other nation states end up contributing. As will be discussed further down, a global environment fee would not need to be harmonized internationally—at least in its initial phase. It could be introduced at different levels in different countries, thus preserving considerable flexibility. Such fees might eventually also be levied in developing countries, where the urban elite is increasingly emulating the unsustainable consumption patterns of their counterparts in rich industrialized countries. For the time being, this however would prove contrary to existing provisions of environmental conventions that guarantee financial compensation simply from developed to developing countries.

The idea that international cooperation efforts would best be funded through individual-level taxes is not new and dates back at least to the Report of the North-South Commission of 1980 (Brandt Report) and the report by the Commission for Sustainable Development of 1987 (Brundtland Report).<sup>18</sup> But there is also a long history of arguments against such taxes, which are seen as undermining the sovereignty of nation states. Nation states have so far had little incentive to

accept any dilution of their taxing authority. Even where regional supranational organizations with considerable rule-making power have emerged (e.g., the European Union), taxation rights have remained solely in the hands of member states.<sup>19</sup> But the globalization process, accelerated by the end of the Cold War and the emergence of democracy as the dominant political system in the world, is changing the rules for international cooperation. The meaning of state sovereignty in an increasingly interdependent world has been debated at least since the '70s.<sup>20</sup> In recent years, countries have given up significant sovereign regulatory and fiscal policy prerogatives in return for greater integration into global markets. Some see an ideological shift taking place from sovereign nation states to sovereign consumers.<sup>21</sup>

The context for considering some international tax for funding international cooperation efforts appears more favorable today than ever. Global environmental programs are, furthermore, especially well-suited for multilateral fund-raising efforts because achieving environmental objectives is dependent on the cooperation of all major countries, developed and developing. International cooperation on other critical global issues tends to depend either on arguably more altruistic motives of donor countries because measures most directly benefit specific recipient countries (development aid) or on leadership of just a few key military powers who act primarily out of their own security interest (e.g., nuclear arms proliferation, United Nations peace-keeping missions).

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18 Willy Brandt, ed. (1983); World Commission on Environment and Development (1987). A recently resurfaced proposal for financing development cooperation is the Tobin tax, which was proposed for the first time in 1978. A tax rate of .01 percent on foreign-currency transactions could raise about US\$25 billion annually. IMF internal document, May 8, 1995. See also Selrod (1995).

19 However, the European Commission does have its own revenue base of 1.6 percent added to the national Value Added Tax. Personal communication with Stephen Bill, European Commission, DG XXI, Customs and Indirect Taxation, November 7, 1995.

20 Joseph S. Nye and Robert O. Keohane (1977).

21 Ronnie Lipschutz (1998).

## Lessons from National Environmental Policy Experience

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What works well on the national level should at least be considered as a possible problem solving approach on the international level. The use of economic instruments for internalizing environmental costs and for creating revenues for pollution prevention and clean-up has evolved rapidly in OECD countries over the last decade. Environmental charges and taxes help correct market failure that results from the fact that environmental costs of economic activities are often externalized while their benefits are privatized. Pollution charges or environmental user fees can help level the economic playing field for less polluting technologies and production methods.<sup>22</sup>

Theoretically, such environmentally motivated charges and taxes can work in two ways: as incentive instruments, or as revenue-raising mechanisms. If levied at sufficiently high levels, environmental taxes or pollution charges affect price differentials and can directly influence the consumption behavior of citizens or industries. At lower levels, pollution charges may simply generate revenues that can be used to finance various pollution clean-up, pollution prevention, and nature conservation activities, or subsidies for environmental technology research and development.

Most environmental legislative frameworks that emerged in the late '60s in OECD countries envisage that polluters should pay—as far as economically reasonable—for the damage that their actions cause to the environment. Largely with industrial water and air pollution in mind, OECD countries in 1972 adopted the polluter-pays principle as a guideline for allocating the costs of pollution control.<sup>23</sup> Over the last decade, OECD countries have greatly expanded the use of environmental taxes and charges.<sup>24</sup> Many countries encourage recycling of beverage bottles with deposit-refund systems and have introduced waste disposal charges dependent on the volume of waste generated. A number of countries now have environmentally motivated energy taxes or road charges in place, as well as levies on pesticide use in agriculture and on VOC (volatile organic compounds) in paints and solvents. The importance of environmental taxes in OECD countries has grown further in the late 1990s.

For present purposes, the key point is that environmental charges can generate considerable revenues at taxation levels that are so low that price distortion is not an issue. Legislators have found it very difficult to introduce environmental incentive taxes at levels that

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22 Because this discussion focuses on revenue-generating effects, no distinction is made between environmental charges, fees, levies, and taxes.

23 For an introduction to the polluter-pays principle (PPP) and how the understanding of the principle developed, see OECD (1992).

24 OECD (1994, 1995b, 1995c).

lead to significant behavioral changes. This is particularly true for the energy sector, where individuals tend to be willing to absorb considerable price increases without changing consumption behavior. Strong opposition to increasing energy taxes to incentive levels has formed in the segments of the economy that would be most strongly affected but also among the general public. So far, the European Union has not succeeded in introducing a harmonized CO<sub>2</sub>/energy tax system in its member states, even though such proposals foresee that revenues from the new tax would be revenue-neutral, i.e., fully offset by reductions in other distortionary taxes on capital and labor income. Where CO<sub>2</sub> taxes have been introduced (e.g., in some Scandinavian countries), the tax levels have generally been low, and key energy-intensive industries have been exempt.

In OECD countries, pollution charges and user fees have become widespread revenue-raising instruments. In 1995, such taxes amounted to on average seven percent of total tax revenues.<sup>25</sup> The use of such taxes as fiscal instruments, often for very narrowly

defined purposes, is increasing. Such policies appear to enjoy support among the general public, because they are based on the polluter-pays principle and therefore transparent. Since the charges tend to be rather small, opposition from the affected sectors of the economy is usually not very strong.

The tendency among national environmental policy makers to earmark specific pollution taxes and charges for environmental policy measures may be deemed undesirable because it limits the resource allocation flexibility of governments and legislatures. But earmarking of revenues is consistent with new thinking in a service-oriented economy. Users of specific public services are increasingly being charged for usage while non-users are not. Revenues are used to maintain these services.<sup>26</sup> The basic conclusion from the preceding discussion is that raising funds for global environmental protection by levying small user fees earmarked for global environmental protection efforts would be in line with recent fiscal policy trends in OECD countries.

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25 OECD (1999b).

26 A joint examination undertaken by fiscal affairs and environmental economics experts from OECD countries on implementation strategies for environmental taxes concludes: "There is no *a priori* correct use of the revenues, although if it is considered that other taxes should be reduced to avoid an increase in the aggregate tax burden, then it would be most appropriate to reduce more distortionary taxes." OECD (1995c), p. 114.

**Reference Table:  
Key Characteristics of Fund-Raising Alternatives**

	Revenue-raising potential	Transaction cost of implementation	Consistency polluter-pays principle (PPP)	Potential for political opposition	Advantages
CO <sub>2</sub> /energy taxes	High (but oil-price sensitive)	Low	High	High, because heavy polluters pay most and will oppose	
Car registration	High	Low	More symbolic: heavy polluters get a break but charge could vary by size of car	Low, because no particular group is strongly penalized	Existing channels can easily be used for dissemination of information
Revoking international aviation tax exemption	Variable	Medium	Low	Depends on resolution of largely unrelated political issues	
International Tourism	Medium	Probably high	Some, because a non-essential service is affected	High, because of high transaction costs	
Flat Global Fee	High	Low	None. Highly regressive.	May be high, because of equity issues	Existing channels can easily be used for dissemination of information
Surcharge on carbon emission trading, Joint Implementation and CDM projects	Variable	Medium	Increases transaction costs for JI and CDM	Low, if surcharge is small	
General trust fund	Variable	Medium	Some on nation state level, depending on burden-sharing	Uncertain, high capitalization costs	Media campaign could help build political support
Voluntary contributions	Probably low	Medium	None	May cut into funding bases of NGOs without achieving fund-raising objectives	
Surcharge on pharmaceuticals with biogenetic components	Low	High	Weak	Pharmaceutical industry likely to oppose	
Surcharge on trade in primary forestry products	Low	High	Some	Forestry industry/ exporting countries likely to oppose	

## **Conclusion: Identifying the Most Promising Option**

The fund-raising options discussed in this paper are far from exhaustive. There are many conceivable points of production and consumption at which a designated “green planet contribution” could be levied. But there are considerable trade-offs between equity and revenue maximization to be considered. These will determine which options are politically more or less palatable (see Reference Table on previous page).

For revenue-generating purposes, it is administratively desirable to raise funds through one simple mechanism, rather than through a system that combines various charges and fees. The paper has therefore singled out energy consumption as the one general area where levying some individual global environment contribution would make most sense. As the examples show, this is the single sector that can guarantee large revenues at very low tax rates. Energy consumption is arguably one of the most important direct and indirect contributors to global environmental degradation. Also, there is no real conceptual problem with using revenues from energy taxes to finance biodiversity conservation and protection of international waters, since destructive activities in these areas are often closely tied to energy consumption.

A number of environmental charges unrelated to energy use were also mentioned, for example, those related to eco-tourism or the production of pharmaceutical products based on biogenetic components from developing countries. But such options, apart from their assumed high transaction costs, would require higher tax rates to result in overall revenues comparable to those generated by a small energy charge. Such options therefore appear less well-suited as fund-raising mechanisms for general purposes. That is not to say that they may not be important instruments for more narrowly defined environmental objectives.

The preceding discussion highlights the political and technical strengths and weaknesses of various strate-

gies for levying a global environment fee. All things considered, a personal “green planet contribution” raised in conjunction with the annual automobile registration combines administrative ease with significant fund-raising potential and with relatively low political cost. The individual annual contribution would be almost negligible. A surcharge on car registrations is still an option that would allow for a weak but psychologically important link between personalized contribution to a global common and environmental consumption. Because such a charge would not punish heavy energy consumers severely, it might be more politically acceptable on the national and international level than taxes on energy consumption.

A small CO<sub>2</sub> or energy charge levied on overall oil or gasoline consumption would be the most “environmentally correct” translation of the polluter-pays principle and could raise very large sums at low tax rates. It would also be fairly straightforward to administer. What may work in favor of such an approach is that CO<sub>2</sub> or energy taxes have been or may soon be introduced in a number of countries. Although the stated intention of such policies is to introduce charges that are revenue neutral (i.e., such taxes must be offset by lowering other taxes), public support might be high for using a small fraction of these revenues for global environmental activities. Nevertheless, the debate about additional taxes on energy, particularly on gasoline, is highly politicized. In many OECD countries, well-established opposition exists to increasing gasoline taxes, particularly at a time when oil prices have climbed substantially. On the other hand, the debate on global warming has now entered mainstream politics, and public perceptions about what needs to be done are changing.

For various reasons already discussed, other options are considered less ideal solutions for achieving automatic fund-raising for global environmental objectives. There may, however, be good reasons not considered here for adopting one or more of these options, for example, an aviation tax, as a departure point for developing an alternative fund-raising mechanism.

# Chances for Emergence of a New Fund-Raising Mechanism

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Even under optimal conditions, it will take years to change from the current burden-sharing approach based on nation states to a new mechanism for raising funds for safeguarding the global environment. The willingness of governments to even consider new approaches outlined here hinges upon consensus on three key points:

1. global environmental problems are a serious problem;
2. substantial funding needs for protecting global resources in developing countries exist beyond what governments and the private sector in recipient countries could possibly cover; and
3. institutional structures and project identification, development, and implementation networks now in place can be expanded and strengthened to effectively use considerably larger amounts than are currently available for investing in long-term global environmental benefits.

This analysis has set out to demonstrate that the introduction of some global environmental user fee—or “green planet contribution”—would make good economic and political sense, given that one agrees with the stated assumptions. However, such alternative ways of raising funds cannot be expected to gain political support easily and it is important to consider why.

As previously discussed, prevailing institutional structures in donor countries affect current fund-raising strategies and levels. National environmental policy making is conducted largely in isolation from resource allocation for environmental measures in developing countries. There is often little interaction or coordination between the ministries that usually promote and develop national environmental policy instruments (typically environment ministries) and the ministries that manage funds for cooperation with developing countries (typically development cooperation ministries). Government officials, given to political pragmatism, understandably focus on securing their national contributions to the GEF within the context of current institutional structures and political limitations. They usually have little capacity and therefore few incentives for exploring alternative fund-raising approaches. Many consider international taxation a lofty pie-in-the-sky idea, and this perception can turn into a self-fulfilling prophecy. But on the positive side, there is usually no fundamental objection against the basic idea of raising funds for global environmental activities through some international user fee.

## Clues from Public Opinion Polls

An analysis of polls that attempt to measure popular environmental attitudes, and the public’s willingness to pay for environmental protection measures suggests that the idea of a “green planet contribution”

could find considerable public support. Polls conducted in the 1990s generally show that a majority of the population in traditional donor countries has become increasingly concerned about environmental problems and would be willing to pay higher prices to protect the environment.<sup>45</sup> Opinion polls conducted in the European Union in 1995 show, for example, that a strong majority of 73 percent of European citizens favor taxing products and techniques that harm the environment.<sup>46</sup> One 1998 survey conducted in the United States on climate change found that people believed that considerably more should be done to combat global warming while earlier U.S. surveys had already found, under certain conditions, a willingness to pay higher energy prices if it benefits the environment.<sup>47</sup>

The most recent survey, which was carried out in April 1999 by the European Commission, generally confirms findings of earlier surveys.<sup>48</sup> Environment ranks sixth among the concerns of Europeans, after violence, health, unemployment, poverty and drugs. Global environmental problems rank high. Given a chance to assess if they were more or less worried now than five years ago, 65 percent of citizens expressed more concern over climate change and 64 percent more concern about disappearance of tropical forests. The survey also found that a majority of Europeans is prepared to accept paying more for products that are less harmful to the environment, while only one-third rejects this idea.<sup>49</sup> Furthermore, given a choice between different policy instruments for improving the environment, stricter regulations

and heavy fines (48 percent) and implementation of the polluter-pays principle (28 percent) rank highest, while less than one in ten Europeans is willing to rely on either voluntary initiatives by industry or on scientific progress.

The strength of concern for the environment, however, clearly varies across cultural, political and economic divides and reflects the broader context in which a survey was conducted.<sup>50</sup> Polls that focus exclusively on environmental policy preferences also tend to find more positive attitudes to environmental measures than do those that force respondents to first set priorities among several important policy areas (e.g., health care, education, crime, social security, and military security).<sup>51</sup>

Furthermore, polling data cannot be taken at face value because surveys may capture lip service rather than actual potential for behavioral changes. Some studies, however, suggest that people tend to act the way they talk, provided legislative or regulatory action ensures that everyone else does the same.<sup>52</sup> Consistency between expressed willingness and actual behavior decreases if behavioral changes depend on voluntary actions and if initial investment costs are high. A majority of U.S. residents, for example, hold car-pooling and public transportation to be too cumbersome, and consider the initial costs of making homes more energy efficient too high, even if substantial savings could result down the road.<sup>53</sup> On the other hand, a bipartisan poll on national energy policy preferences found high support for political mea-

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45 For overview surveys, see European Commission (1996), Barbara C. Farhar (1993, 1994), R.E. Dunlap et al. (1993), and International Social Survey Program, ISSP (1993).

46 European Commission (1996).

47 Jon Krosnick and Penny Visser (1998).

48 European Commission (1999). Of course, the data presented here masks considerable differences between individual EU member countries.

49 European Commission (1999), p. 28. The survey only provides percentage figures for preparedness to pay more for specific products or services.

50 For example, 52 percent of West Germans, but only 43 percent of East Germans, would be at least inclined to consider paying higher taxes and charges for improved environmental protection, given the money would directly benefit the environment (Bundesministerium fuer Umwelt, Naturschutz und Reaktorsicherheit, 1996, p. 82). Considerable differences can also be found between the German and French-speaking parts of Switzerland, with 73 percent of Swiss Germans but only 60 percent of Swiss Romans expressing concern for environmental problems (Andreas Diekman and Axel Franzen, 1995). Political affiliation is also a factor. In early 1998, 77 percent of U.S. Democrats but only 55 percent of Republicans believed global warming will happen in the future (Krosnick and Visser, 1998).

51 See Gardner Brown (1994).

52 Peter Preisendoerfer and Axel Franzen (1996) and Greenberg/Lake (1990).

53 Barbara C. Farhar (1994), p. 219. Farhar (1993) reviews a great deal of polling data on environmental preferences.

asures, such as reestablishing the solar tax credits (86 percent), increasing corporate average fuel economy (CAFE) standards to 40 mpg by 2000, increasing federal spending on mass transit, and instituting tax rebates on fuel-efficient cars.

No survey was found that directly addresses the public's willingness to compensate developing countries for globally beneficial environmental measures. Polling results examined for this analysis, however, give some reason to believe that the willingness to pay for GEF-type activities may be high and would considerably exceed current per-capita spending for global environmental protection. This should not be surprising given that annual contributions to the GEF range from 11 cents per person, in the case of Spain, to \$1.82 per person in the case of Norway.<sup>54</sup>

However, surveys also suggest important caveats. Public distrust in the ability of international organizations and foreign governments to use financial resources effectively could easily outweigh support in principle for higher spending. A recent survey has shown that a large majority of U.S. citizens believe that too much aid resources are wasted because of inefficiency and corruption in recipient countries.<sup>55</sup> But the same survey also shows that people grossly overestimate the actual level of such aid. The median estimate was that 15 percent of the total U.S. federal budget goes towards foreign aid while the actual figure is about one percent. Trust in international organizations may be somewhat greater in European countries, particularly in smaller countries more inclined to work through multilateral mechanisms.

All things considered, it would appear that in most donor countries the public is rather supportive of expanding government measures to protect the global environment. The fact that the public seems to considerably overestimate the actual expenditures of governments for development cooperation—as the U.S. example shows—also supports such a conclusion. The public's willingness to pay for global environmental measures, expressed in per capita terms, may considerably exceed that which governments actually make available.

The discrepancy between latent public preference and actual policy may reflect the high transaction costs involved in turning diffuse political support for public goods into legislative action. Transaction costs are especially high when measures impact strongly motivated and politically well-established economic interests but lack supporters with strong economic motivation. Even in the absence of strong opposition, soft policy preferences are easily crowded out in established institutional and bureaucratic processes that are more geared towards dealing with traditional policy issues (for which well-formed constituencies exist).

Support for fund-raising alternatives discussed here must crystallize around environmental NGOs and relevant government institutions and spread to key private sector actors. Attention from NGOs can be expected to increase as these organizations become increasingly integrated into development and project implementation of government-funded programs. Being politically savvy and pragmatic, NGOs will recognize that any implementation of a mandatory fund-raising mechanism for global environmental activities will likely reduce the public's willingness to make voluntary contributions to NGOs.

### **Steps Towards a New Mechanism**

If some global environmental user fee system does emerge, it will most likely do so gradually, after individual-level taxation mechanisms for global environmental efforts are introduced in single countries or perhaps in a small group of like-minded countries. Some countries have already introduced CO<sub>2</sub> taxes. They could, as a first step, express expenditures for global environmental efforts (bilateral programs and their contribution to the GEF) as a percentage of revenues from existing environmentally motivated taxes. As a next step, they might adjust the percentage of the revenues going to global environmental efforts according to some specific funding objective, for example, allowing for a gradual increase. The European Union may decide to encourage such policies on a voluntary basis in its member countries.

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<sup>54</sup> The per capita contribution to the GEF is about 40 cents for the United States and about 70 cents in the case of other major donor countries.

<sup>55</sup> Steven Krull (1995).

The United States is the country that is perhaps least likely to introduce environmentally motivated charges for funding global environmental activities in the near future. This may be due not only to political factors, but also to an environmental policy approach that favors regulation and standards based on rigorous cost-benefit analysis, rather than broadly applied market-based incentives. Of course, it is difficult to predict how American policy preferences may change in coming years, particularly since opinion polls do suggest that the public favors increased efforts to protect the global environment.

It would obviously be most desirable to pursue the introduction of a global “green planet contribution” with the support of all major traditional donors and even with key developing countries. However, making this a prerequisite for initiating work in this direction would likely postpone any serious discussion indefinitely. Realistically, unilateral national mechanisms that build fund-raising for global environmental purposes on the polluter-pays principle could provide a starting point around which support for a more multilateral mechanism could crystallize.

The starting point for a multilateral system would have to be a differentiated tax rate for each country, calculated to raise approximately those revenues required to cover current national GEF commitments. As a next step, multilateral negotiations could focus on agreeing to small, incremental increases in contribution rates, in order to secure predictable resource growth. Negotiations on funding increases should be based on needs communicated by the parties to the conventions, as well as on developments in the disbursement and absorption capacity of implementing agencies and recipient countries. Negotiations would also leave room for eventually bringing tax rates of countries closer together.

Burden-sharing negotiations would still be necessary. Their character, however, would change significantly. Negotiations concerning relative increases in marginal environmental tax rates may ultimately be less politically contentious than negotiating overall contributions from state budgets amounting in the hundreds of million dollars. Perhaps the most significant advantage would be that fund-raising would be completely removed from the context of development cooperation, and would in fact meet the criteria of being “new and additional” financing, as originally

called for in a number of international environmental agreements.

Innovative fund-raising ideas for global environmental protection could in principle be explored within many institutional frameworks. But finding a framework that can generate attention from all relevant government agencies will be critical. The GEF, as the designated funding mechanism for both the U.N. Framework Convention on Climate Change and the Convention on Biological Diversity, is the existing institutional entity with the strongest self-interest in improving its funding base. But the GEF may not be the best forum for bringing together experts on environmental taxation, fiscal policy, and global environmental protection. The OECD with its specialized sub-committees might be in a better position to explore ideas relating to a “green planet contribution,” in collaboration with the GEF secretariat.

### **Implications of a New Fund-Raising Mechanism**

Obviously, the question of how to make effective use of substantially increased funding levels for global environmental protection must be addressed very carefully. It is self-evident that existing mechanisms, thus far mainly the GEF, must evolve further. They may need to be restructured and complemented by other, perhaps more decentralized, mechanisms, if they are to effectively absorb increased funds for global environmental benefits. In this context, it should also be noted that the automatic nature of fund-raising mechanisms suggested here does not by itself imply any change in the oversight structure of a future GEF (or a similar institution). Governments will remain the key gatekeepers for determining strategic and programmatic approaches and for guaranteeing the necessary quality of programs and projects. Ultimately, governments would still be able to block transfer of funds collected nationally to the multilateral fund, should they find this necessary.

Neither would implementing a more automatic fund-raising mechanism mean that the executing organization must spend all the funds raised annually, which could lead to a decline in project quality. There are easy ways to avoid such disbursement pressure. When fund-raising exceeds what can be disbursed effectively, surplus could be used to capitalize a multilateral trust fund. One could in any case envisage a

mechanism designed to fund, simultaneously, current program implementation and capitalization of a trust fund. Governments may even consider capitalization of one general trust fund for future revenue-generating purposes or several issue-specific or regional trust funds as an explicit policy objective. In this case, the annual per capita “green planet contribution” could be phased out eventually as revenues generated by the trust fund take over funding for global environmental purposes.<sup>56</sup>

Much work is needed to sort through the implications for international cooperation of such a trust fund or specialized trust funds. It is clear that once a general trust fund were fully capitalized, it would represent a truly global revenue-generating mechanism with far-reaching implications for international cooperation.

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<sup>56</sup> Eventually the distinction between developed and developing countries would fade, and eligibility for financing from the trust fund would be determined based on the global environmental benefits that a project or program could be expected to realize.

## Conclusion

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This paper has discussed some alternative fund-raising strategies for financing global environmental protection measures in developing countries. It argues that funds could be raised more effectively and in a more transparent manner by introducing some small, personalized “green planet contribution.” A very small tax rate levied at the individual level could raise resources far exceeding amounts currently made available through multilateral channels for global environmental protection. Building the fund-raising mechanism around the polluter- or consumer-pays principle, which is already widely accepted in domestic environmental policy circles, would increase transparency, build public awareness for global environmental objectives, and generally help advance the policy debate on global environmental issues and commitments relating to environmental conventions.

On the international level, discussions regarding some sort of global environment fee could help depoliticize negotiations on the distribution of costs for globally beneficial measures in developing countries. Technically, negotiations would focus on individual, per capita tax rates, rather than on collective national characteristics. Since contributions would be very small in per capita terms, they would not affect individuals’ economic welfare, and strong and widespread opposition therefore appears unlikely. International environmental negotiations currently emphasize overall differences among countries, for example, in terms of greenhouse gas emissions, extent of forest cover and biodiversity, and economic indicators. The structure of the “game” encourages cost avoidance, rather than joint problem solving.

Moving from a negotiating approach centered on nation states towards an approach that considers individualized contributions aimed at achieving a common goal may be less contentious and may eventually lead to more productive outcomes in terms of collectively responding to global environmental problems.

By the same token, it may be very effective to emphasize financial support for services that render global environmental benefits (carrots) as a pragmatic alternative to domestically controversial and largely inflexible policy commitments negotiated in relation to what other countries commit to (sticks). A more automatic fund-raising approach linked to small personal contributions by citizens in developed countries would be a promising way to secure predictable and increasing funds into the future for such “carrot” measures.

Reduced pressure on state budgets would constitute a political advantage for governments on the national level. The repeated political and institutional struggle to secure budget resources for global environmental measures could be avoided. Recent polling data suggests that public support for new market-based approaches to securing funds for global environmental protection measures in developing countries may be considerable.

But as attractive as new fund-raising mechanisms may look, powerful perceptions and institutional factors continue to work against their introduction. First is the belief that nation states should retain the exclu-

sive right to tax and to set contribution levels for multilateral cooperation efforts. In line with this thinking, it is often argued that governments will find adequate resources for measures deemed necessary, and that therefore the way such funds are raised is irrelevant. The present analysis has demonstrated that such perceptions do not adequately acknowledge structural characteristics and institutional and political constraints. Institutional structures generally constrain efforts to secure higher allocations for a budget item, such as the global environment, particularly if providing such funds is linked to increasing funds for development cooperation. Legislators are necessarily most concerned about safeguarding budgetary funds for domestic programs closest to the heart of their domestic constituencies. Environmental policy makers also must focus on domestic issues, such as building support for domestic CO<sub>2</sub>/energy tax or pollution and conservation efforts, if they are to achieve some of their policy goals in the context of a crowded legislative agenda. Similarly, environmental NGOs have their own fund-raising priorities, and tend to focus their lobbying efforts on concrete, high-profile issues that help mobilize the public.

The political acceptability of new approaches to raising revenues for global environmental protection must ultimately be assessed in light of the relatively high levels of environmental awareness that charac-

terizes the public in industrialized countries. Majorities in most industrialized countries support expanded efforts to address global environmental problems. This coincides with a general preference by parties on both ends of the political spectrum to reform the tax system by reducing the burden on capital and labor and by increasing taxes on consumption. In most OECD countries, reliance on value added taxes (VAT) has increased in recent years. Some alternative funding mechanisms for global environmental protection suggested here would be consistent with this general national trend.

An international tax, finally, should not be dismissed as a pie-in-the-sky idea. The world has changed significantly over the last decade. Countries have relinquished sweeping legislative and regulatory powers in return for greater economic and monetary integration. The Internet is providing the infrastructure for the emergence of a global knowledge culture that has far-reaching implications for global governance. The Cold War, which fundamentally determined foreign policy outlooks until 10 years ago, is over, and many countries have recently made the transition to democracy. In today's world, an internationally coordinated "green planet contribution" would be a reasonable instrument for addressing key international cooperation issues.