

Chapter 5

Fostering Environmentally Sustainable Development: Four Parting Suggestions for the World Bank

I have four suggestions for better serving the goal of environmentally sustainable development through World Bank policy and action. These four prescriptions are presented in order of increasing generality and radicalism. That is, the first two are fairly specific and should, I think, be relatively noncontroversial. The third will be debated by many, and the fourth will be considered outrageous by most Bank economists. I cannot omit the fourth, however, because it is required by the first three; it provides an external policy that is coherent with the internal policies contained in the first three recommendations.

1. *Stop counting the consumption of natural capital as income.* Income is by definition the maximum amount that a society can consume this year and still be able to consume the same amount next year. That is, consumption this year, if it is to be called income, must leave intact the capacity to produce and consume the same amount next year. Thus sustainability is built into the very definition of income. But the productive capacity that must be maintained intact has traditionally been thought of as man-made capital only, excluding natural capital. We have habitually counted natural capital as a free good. This might have been justified in yesterday's empty world, but in today's full world it is antieconomic. The error of implicitly counting natural capital consumption as income is customary in three areas: the UN's System of National Accounts, the evaluation of projects that deplete natural capital, and international balance-of-payments accounting.

With regard to the first area—the System of National Accounts—the error is well recognized and efforts are underway to correct it. Indeed, the World Bank played a pioneering role in this important initiative, and I hope it will continue to contribute to “greening the GNP.”

The second suggestion (the second by standard economics, depletion charges) as part of the World Bank *best practice* of Uncounted user costs should turn for depleting projects to deplete natural capital. The bias is the logical first suggestion must be counted not on the deplete renewable natural “sink,” or absorptive, services, can also for a user cost must be the atmosphere's ability to is admittedly difficult to apply means that we assign zero, which is frequently estimate, it should be an on explicit assumption: lifetimes.¹

In the third depleted natural capital— is entered in the current accounting error. Some the sale of a capital asset some countries would be true deficit, one that is stock of natural capital. balance of trade from a International Monetary Fund of-payments accounting, vironmentally sustainable age the managers and come naturally to them

2. *Tax* In the past it has been customary to stimulate growth. This now frequently subsidizes these subsidies. But it subsidies to the removal

The second area of concern, project evaluation, is well recognized by standard economics, which has long taught the need to count "user cost" (depletion charges) as part of the opportunity cost of projects that deplete natural capital. Bank *best* practice counts user costs, but *average* Bank practice ignores them. Uncounted user costs show up in inflated net benefits and an overstated rate of return for depleting projects. This biases investment allocation toward projects that deplete natural capital and away from more sustainable projects. Correcting this bias is the logical first step toward a policy of sustainable development. User cost must be counted not only for depletion of nonrenewables, but also for projects that divest renewable natural capital by exploiting it beyond sustainable yield. The "sink," or absorptive, services of natural capital, as well as its "source," or regenerative, services, can also be depleted if used beyond sustainable capacity. Therefore a user cost must be charged to projects that deplete sink capacity, such as the atmosphere's ability to absorb CO₂ or the capacity of a river to carry off wastes. It is admittedly difficult to measure user cost, but attempting to avoid the issue simply means that we assign to depleted natural capital the precise default value of zero, which is frequently not the best estimate. Even when zero is the best estimate, it should be arrived at not by default but by reasoned calculation based on explicit assumptions about backstop technologies, discount rates, and reserve lifetimes.¹

In the third area, balance-of-payments accounting, the export of depleted natural capital—whether petroleum or timber cut beyond sustainable yield—is entered in the current account, and thus treated entirely as income. This is an accounting error. Some portion of those nonsustainable exports should be treated as the sale of a capital asset, and entered on capital account. If this were properly done, some countries would see their apparent balance-of-trade surplus converted into a true deficit, one that is being financed by drawdown and transfer abroad of their stock of natural capital. Reclassifying transactions in a way that converts a country's balance of trade from a surplus to a deficit would trigger a whole different set of International Monetary Fund recommendations and actions. This reform of balance-of-payments accounting should be the initial focus of the IMF's new interest in environmentally sustainable development. The World Bank should warmly encourage the managers and staff of its sister institution to get busy on this—it does not come naturally to them.

2. *Tax labor and income less, and tax resource throughput more.* In the past it has been customary for governments to subsidize resource throughput² to stimulate growth. Thus energy, water, fertilizer, and even deforestation, are even now frequently subsidized. To its credit, the World Bank has generally opposed these subsidies. But it is necessary to go beyond the removal of explicit financial subsidies to the removal of implicit environmental subsidies as well. By "implicit

environmental subsidies" I mean external costs to the community that are not charged to the commodities whose production generates them.

Economists have long advocated internalizing external costs either by calculating and charging Pigouvian taxes (taxes which when added to marginal private costs make them equal to marginal social costs), or by Coasian redefinition of property rights (such that resources that used to be public property, and not valued in markets, become private property whose values are protected by their new owners). These solutions are elegant in theory, but often quite difficult in practice. A blunter but much more operational instrument would be simply to shift our tax base away from labor and income onto throughput. We have to raise public revenue somehow, and the present system is highly distortionary in that by taxing labor and income in the face of high unemployment in nearly all countries, we are discouraging exactly what we want more of. The present signal to firms is to shed labor and substitute more capital and resource throughput, to the extent feasible. It would be better to economize on throughput because of the high external costs of its associated depletion and pollution, and at the same time to use more labor because of the high social benefits associated with reducing unemployment.

Shifting the tax base to throughput induces greater throughput efficiency, and internalizes, in a blunt manner, the externalities from depletion and pollution. True, the exact external costs will not have been precisely calculated or exactly attributed to those activities that caused them, as with a Pigouvian tax that aims to equate marginal social costs and benefits for each activity. But those calculations and attributions are so difficult and uncertain that insisting on them at the outset would be equivalent to a full-employment act for econometricians and prolonged unemployment and environmental degradation for everyone else.

Politically, this shift in the tax base, increasingly referred to as "ecological tax reform," could be sold under the banner of revenue neutrality. However, the income tax structure should be maintained so as to keep progressivity in the overall tax structure by taxing very high incomes and subsidizing very low incomes (negative income tax). But the bulk of public revenue would be raised from taxes on throughput, at either the depletion or the pollution end. The income tax would be mainly for redistribution rather than revenue. The throughput taxes would be both for revenue and to encourage throughput minimization. Some people worry that our tax base would disappear as throughput was minimized. But throughput cannot approach zero, and when it is minimized then taxes on it will still raise revenue, and tax rates can be raised to meet any revenue needs. It is value added that can be taxed out of existence, not throughput! Furthermore, taxing something that has become inelastic in demand is allocatively efficient.

The shift could be carried out gradually by a preannounced schedule to minimize disruption.³ This shift should be a key part of structural adjustment, but should be pioneered in the North. Indeed, sustainable development it-

self must be achieved for sustainability in the North. The major way to achieve sustainable development in the North is to invest in capital and technology. Some way must be found to make the honest broker and representative and not just vice versa. The gun to do this.

3. *Maximize investment in increasing its supply*
these two ways toward productivity and invest in investments do exist about which I argue that man-made and natural capital are of a limiting factor, which is true that without capital is, Are man-made capital and natural capital Here again we can provide a way that would welcome more energy and clear to common sense than the other complements and only marginal investment. In the past, capital has been priced at zero, so it did not get substituted for man-made capital. The scarce and complementary investment is not by the number of barrels of crude oil is limited not by the stocks of petroleum in the ground but by the capacity to serve as a sink for the investment which petroleum can be substituted for on the ground.

In the short run, the investment in throughput, as advocated above, will increase productivity. Investment in capital and technology how do we invest in some way to make it, it would be man-made capital and technology. The possibility of following investment in capital and technology sense—allowing this year's investment in capital and technology stock rather than consuming it—can only liquidate them. S

self must be achieved in the North first. It is absurd to expect any sacrifice for sustainability in the South if similar measures have not first been taken in the North. The major weakness in the World Bank's ability to foster environmentally sustainable development is that it only has leverage over the South, not the North. Some way must be found to push the North also. The World Bank must serve as an honest broker and represent the South in its legitimate expectations of the North—and not just vice versa. The Nordic countries and the Netherlands have already begun to do this.

3. *Maximize the productivity of natural capital in the short run, and invest in increasing its supply in the long run.* Economic logic requires that we behave in these two ways toward the *limiting factor* of production—that is, maximize its productivity and invest in its increase. Those principles are not in dispute. Disagreements do exist about whether natural capital is really the limiting factor. Some argue that man-made and natural capital are such good substitutes that the very idea of a limiting factor, which requires that the factors be complementary, is irrelevant.⁴ It is true that without complementarity there is no limiting factor. So the question is, Are man-made capital and natural capital basically complements or substitutes? Here again we can provide perpetual full employment for econometricians, and I would welcome more empirical work on this, even though I think it is sufficiently clear to common sense that natural and man-made capital are fundamentally complements and only marginally substitutable.⁵

In the past natural capital has been treated as superabundant and priced at zero, so it did not really matter whether it was seen as a complement or a substitute for man-made capital. Now remaining natural capital appears to be both scarce and complementary, and therefore limiting. For example, cut timber is limited not by the number of sawmills, but by the remaining standing forests. Pumped crude oil is limited not by man-made pumping capacity, but by the remaining stocks of petroleum in the ground, and the natural capital of the atmosphere's capacity to serve as a sink for CO₂ is likely to be even more limiting to the rate at which petroleum can be burned than is the source limit of remaining oil in the ground.

In the short run, raising the price of natural capital by taxing throughput, as advocated above, will give the incentive to maximize natural capital productivity. Investment in natural capital over the long run is also needed. But how do we invest in something which by definition we cannot make? If we could make it, it would be man-made capital! For renewable resources we have the possibility of allowing investments, or more generally "waiting" in the Marshallian sense—allowing this year's growth increment to be added to next year's growing stock rather than consuming it.⁶ For nonrenewables we do not have this option. We can only liquidate them. So the question is, How fast do we liquidate, and how

much of the proceeds can we count as income if we invest the rest in the best available renewable substitute? And, of course, How much of the correctly counted income do we then consume and how much do we invest?

One renewable substitute for natural capital is the mixture of natural and man-made capital represented by plantations, fish farms, and the like, which we may call "cultivated natural capital." But even within this important hybrid category we have a complementary combination of natural and man-made capital components—a plantation forest may use man-made capital to plant trees, control pests, and choose the proper rotation, for example—but the complementary natural capital services of rainfall, sunlight, soil, and so on are still there, and eventually still become limiting. Also, cultivated natural capital usually requires a reduction in biodiversity relative to natural capital proper, which must be counted as a cost.

For both renewable and nonrenewable resources, investments in enhancing throughput productivity are needed. Increasing resource productivity is indeed a good substitute for finding more of the resource. But the main point is that investment should be in the limiting factor, and to the extent that natural capital has replaced man-made capital as the limiting factor, the Bank's investment focus should shift correspondingly. I do not believe that it has. In fact, the failure to charge user cost on natural capital depletion, noted earlier, surely biases investment away from replenishing projects.

4. *Move away from the ideology of global economic integration by free trade, free capital mobility, and export-led growth—and toward a more nationalist orientation that seeks to develop domestic production for internal markets as the first option, having recourse to international trade only when clearly much more efficient.* At the present time global interdependence is celebrated as a self-evident good. The royal road to development, peace, and harmony is thought to be the unrelenting conquest of each nation's market by all other nations. The word "globalist" has politically correct connotations, while the word "nationalist" has come to be pejorative. This is so much the case that it is necessary to remind ourselves that the World Bank exists to serve the interests of its members, *which are nation states, national communities*—not individuals, not corporations, not even NGOs (non-governmental organizations). It has no charter to serve the one-world-without-borders cosmopolitan vision of global integration—of converting many relatively independent national economies, loosely dependent on international trade, into one tightly integrated world economic network upon which the weakened nations depend for even basic survival.

The model of international community upon which the Bretton Woods institutions rest is that of a "community of communities," an international federation of *national* communities cooperating to solve global problems under the principle of subsidiarity. The model is not the cosmopolitan one of direct global cit-

izenship in a single international states.

To global aries through free trade integration is to wound fatal policies for the common domestic ends, but also environmental problems through international agreements prescribes in their support. If position to enforce national with international treaties.

Cosmopolitan power of national and power of transnational regulating global capital the possibility of a world make capital less global thought right now, but and hot concepts will be of capital for the development shibboleths of export-led necessary to increase global thought-substituting productivity as a standard environmental and social income.⁷

The World Bank reflect deeply on the for

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izenship in a single integrated world community without intermediation by nation states.

To globalize the economy by erasure of national economic boundaries through free trade, free capital mobility, and free, or at least uncontrolled, migration is to wound fatally the major unit of community capable of carrying out any policies for the common good. That includes not only national policies for purely domestic ends, but also international agreements required to deal with those environmental problems that are irreducibly global (CO₂, ozone depletion). International agreements presuppose the ability of national governments to carry out policies in their support. If nations have no control over their borders they are in a poor position to enforce national laws, including those necessary to secure compliance with international treaties that they have signed.

Cosmopolitan globalism weakens national boundaries and the power of national and subnational communities, while strengthening the relative power of transnational corporations. Since there is no world government capable of regulating global capital in the global interest, and since both the desirability and the possibility of a world government are highly doubtful, it will be necessary to make capital less global and more national. I know that this is an unthinkable thought right now, but take it as a prediction—ten years from now the buzz words and hot concepts will be “renationalization of capital” and the “community rooting of capital for the development of national and local economies,” not the current shibboleths of export-led growth stimulated by whatever adjustments are necessary to increase global competitiveness. “Global competitiveness” (frequently a thought-substituting slogan) usually reflects not so much a real increase in resource productivity as a standards-lowering competition to reduce wages, externalize environmental and social costs, and export natural capital at low prices while calling it income.⁷

The World Bank should use the occasion of its fiftieth birthday to reflect deeply on the forgotten words of one of its founders, John Maynard Keynes:

I sympathize therefore, with those who would minimize, rather than those who would maximize, economic entanglement between nations. Ideas, knowledge, art, hospitality, travel—these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible; and, above all, let finance be primarily national.⁸