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Rethinking Sustainable Development

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Over a quarter of a century ago, the World Commission on Environment and Development (known as the Brundtland Commission) released a report entitled "Our Common Future," which brought the term "sustainable development" to the center stage of the development discourse. Although the term had emerged earlier in the 1980 World Conservation Strategy, the Brundtland Commission gave it a succinct and catchy definition: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

This definition caught the imagination of policy makers, academics, and activists alike, leading to widespread adoption of the term at all levels. The term's popularity has increased almost exponentially, and so has the literature. A search for "sustainable development" yields 36 million hits on Google and 89,000 articles with that term in their title on Google Scholar. It is now being used in every imaginable context from transport to agriculture, from local to global, from rural to urban.

This popularity has grown in parallel with lots of activity at international and national levels toward promoting the concept, particularly in officialdom, aid agencies, nongovernmental organizations (NGOs), and even the corporate sector. The 1992 Earth Summit in Rio de Janeiro resulted in a document by means of which the goal of sustainable development was officially adopted by the 170 governments present. The Earth Summit also resulted in international conventions on biodiversity, wetlands, and forestry, and in starting the process for negotiating a convention on climate change.

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This was followed by the creation of the UN Center for Sustainable Development, the adoption of sustainable development goals by the World Bank, and the formulation of national sustainable development strategies by many countries, culminating in the World Summit on Sustainable Development in Johannesburg in 2002. That summit was a bit of a failure, and the focus shifted back to poverty alleviation, resulting in the Millennium Development Goals (MDGs) taking center stage. But global negotiations on climate change and some other related themes continued. After the Rio+20 summit in 2012, sustainable development is back in focus in international policy discourse, with the concept of Sustainable Development Goals (SDGs) set to replace or complement the MDGs that will expire in 2015.

DISCOURAGING TRENDS

With all this activity, what is the situation on the ground? Has there been significant progress since 1992 toward achieving sustainable development—that is, toward meeting the needs of the present generation and safeguarding the earth's capacity to meet the needs of future generations?

On the development front, the scorecard is at best mixed. While the percentage of people living below the minimalist poverty line of $1.25 per day has dropped significantly, more than a billion people continue to live in poverty today, and the number of malnourished is similar but increasing. Child mortality is still very high, around 6.6 million per year, although it is down from 12.4 million in 1990. Certain diseases such as malaria and tuberculosis are making a comeback. School enrollment and literacy rates have gone up, but employment rates have stagnated. And inequality within and across nations, as measured by the Gini coefficient, has increased significantly.

When it comes to environmental indicators, the trends are on the whole negative, as the UN

Environment Program's 2012 Global Environment Outlook shows. Atmospheric carbon dioxide levels have increased from 355 parts per million in 1990 to 395 ppm today, and will continue to rise for decades under the most optimistic scenarios. Even the modest targets set by the Kyoto Protocol on climate change are not being met. Groundwater levels have declined alarmingly in many parts of the world, especially the tropics, and water scarcity affects almost two billion people worldwide. Deforestation has slowed down, but fish stocks are diminishing rapidly. Air quality continues to deteriorate in most urban settlements in developing countries; the presence of various chemical pollutants in the environment is increasing steadily. And terrestrial and aquatic species declined by an estimated 30 percent between 1970 and 2008.

What explains this paradox, this chasm between activity and outcomes? I believe there are two levels of explanation. At one level, the strength of the term sustainable development—its universal appeal—is also its weakness, allowing it to be coopted and redefined in ways that actually limit its goals and hence the societal changes needed to achieve them. A mainstream version of sustainable development has emerged (I will refer to it as Sustainable Development, capitalized). It is a version actively promoted by most international agencies and governments, and many academics and NGOs have willy-nilly accepted it. This mainstreaming benefits the status quo, asking only for incremental changes from individuals, corporations, and states.

At another level, those who reject this limited mainstream vision include various civil society groups and some academics who come at the problem from diverse, sometimes radical, perspectives. They unite in rejecting both conventional notions of development and the watered-down conception of Sustainable Development. But they are unable to articulate a common alternate vision and a way forward. They differ on both normative concerns and analytical frameworks. Yet bridging these schisms is a necessary, even though not sufficient, condition for a more meaningful version of sustainable development to become feasible.

Mainstream fallacies

In essence, the idea of sustainable development articulated by the Brundtland Commission and others highlights the need for development, sustainability, and equity—a formulation broad enough to make it attractive to groups with many different perspectives. The devil, of course, is in the details of how these broad notions or goals are to be made operational.

The seeds of the mainstream version can be found in the Brundtland report itself, which articulated the operational goals of Sustainable Development as: (1) reviving growth; (2) changing the quality of growth; (3) meeting essential needs for jobs, food, energy, water, and sanitation; (4) ensuring a sustainable level of population; (5) conserving and enhancing the resource base; (6) reorienting technology and managing risk; (7) merging environment and economics in decision making; and (8) reorienting international economic relations. A ninth objective, present in the Brundtland report but highlighted more clearly in the 1992 Rio declaration, was "maximizing people's participation" in the development process.

The point to be noted is that, although the original definition of sustainable development focused on meeting *needs*, the operational part refocused attention on *growth*, suggesting that economic growth is essential for poverty reduction and is needed even in the richer parts of the world. The focus on economics continues through the idea of merging economic and environmental decision making and the reorienting of international economic relations.

Slowly, under the leadership of institutions such as the World Bank, the main goals of Sustainable Development were redefined as follows: a) development as economic growth with trickle-down benefits, b) sustainability as non-declining economic well-being, and c) equity as "participation" in the process of development decision making.

The economics here is market economics, summarized in the World Bank's statement that "the world is not running out of marketed nonrenewable energy and raw materials, but the unmarketed side effects associated with their extraction and consumption have become serious concerns." In other words, unsustainability is the result of market failures, and the solution therefore is to increase the penetration of markets into all spheres. The state's role is restricted to setting right these market failures by first establishing private property rights wherever possible and then setting up markets for commodity futures, land and water, and even pollution permits. Well-being is best measured entirely in economic terms, and all decision making should focus on maximizing aggregate economic well-being. That the existing extreme differences in income automatically dis-

tort such decisions in favor of the rich is glossed over, or to be rectified through transfers of "direct benefits" rather than "meddling in the market" through, for instance, labor laws or minimum wage standards.

The stranglehold of economistic thinking in this framework is matched only by its faith in technology, which is why sustainability is not defined in terms of physical benchmarks or conservation of a specific set of biophysical resources and ecosystem processes, but in terms of the net result as measured in the trajectory of the economy. The assumption is that if markets are functioning well, then as resources (or pollution sinks) become scarcer, the rising prices of those resources (or sinks) will induce technological innovation that in turn will make their use more efficient, reducing throughput and hence environmental harm. Technological innovation is the driver of economic growth in this paradigm, and no environmental constraint is seen as insurmountable.

A supporting argument for putting faith in economic growth is the idea of the Environmental Kuznets curve, the hypothesis that as incomes rise, the environment may initially deteriorate but will eventually improve again. This follows from the original assumption in the Brundtland report and many other formulations, holding that poverty is one of the biggest causes of environmental degradation to begin with. This suggests a convenient win-win scenario: economic growth reduces poverty and also saves the environment.

But there are many obvious exceptions to this claim, including solid waste and carbon emissions, which have continuously increased. And it is also not clear that what obtained in the global North can be repeated in the global South, given that many of the environmental improvements in the former are the result of exporting polluting industries and even actual byproducts (such as toxic wastes) to the latter. Nevertheless, this idea continues to hold sway in much thinking on the environment-economy relationship.

Several groups that may have originally disagreed with the mainstream economistic approach have eventually joined hands with it. One recent example is the subset of conservationists who have bought into the concept of payment for ecosystem services (PES). For a long time, conservationists believed that wildlife should be conserved for its own sake. The PES approach, however, reframes biodiversity conservation as a means to ensuring economic well-being, and argues that biodiversity is lost because it (that is, its contribution to the economy) is "under-valued" in the absence of markets for it. Biodiversity loss can therefore be ameliorated by creating markets that link poor people close to natural ecosystems (who are supposedly responsible for their degradation) with biodiversity lovers far away (typically in the global North).

The problems with such an approach are manifold. First, biodiversity conservation is reduced to a commodity rather than being framed in terms of (say) the rights of nonhuman species. Second, it is assumed that local communities actually have the ability and authority to deplete or conserve biodiversity as they wish. Third, it assumes that the additional conservation generated by such payments is the "right amount" of conservation from a public policy perspective.

A broad notion of environmental soundness includes not just long-term sustainability but also intra-generational environmental justice and quality of life.

Although some conservationists have argued against such commodification of nature, pointing out that it goes against the idea of the fundamental right of other species to also live on the planet, most international conservation NGOs have gone ahead with PES schemes or used the argument that biodiversity is essential for economic well-being. As Stanford University's Gretchen Daily put it, market strategies offer a way of "buying time and getting buy-in." In other words, if you cannot beat them, join them.

ALTERNATIVE APPROACHES

One way to understand alternative approaches is to examine their critiques of Sustainable Development. The strongest, and perhaps the most obvious, critique of the mainstream formulation comes from what may be broadly labeled the political economy perspective. This includes several angles: critiques of capitalism, of state power, and of colonial and neocolonial structures. In essence, they all converge on inequalities of power: whether of the corporate sector versus the laborer and consumer, of the state versus indigenous communities, or of countries in the global North versus those in the global South.

The starting point of this critique is questioning the win-win assumption that underpins so much of the mainstream paradigm. A simple example is river pollution. If an industry pollutes a river and threatens the health of those living downstream, any attempt to regulate the industry will generally reduce its profits. There is really no win-win here, except in the rare case where a technology that reduces pollution also increases efficiency so much as to offset the cost of the new investment. More often than not, the situation is one of win-lose. The question then is: Will the state regulatory agency automatically enforce regulations, and will the industry abide by them like a good citizen, or is it more likely that the industry will use all the power at its disposal to lobby and the regulatory agency will fall prey to regulatory capture? The political economy perspective says the latter is most likely to happen, especially since the communities facing pollution are often disorganized, poor, and powerless. And there is ample evidence to support this prediction.

The same holds true for climate change mitigation. History shows that car manufacturers in the United States have consistently resisted any push for even small improvements in mileage standards. The efficiency improvements required to make a serious dent in CO2 emissions are an order of magnitude more. What are the chances that such improvements will actually take place, whether through direct imposition of higher mileage standards or by setting a really tight cap on total vehicular CO2 emissions? Is it not true that petroleum companies, car manufacturers, and others whose profits are entirely based on fossil fuel consumption are the biggest opponents of any attempt at meaningful treaties on emission reductions?

And is it not true that Northern nations such as the United States, whose entire lifestyle depends heavily on high levels of fossil fuel consumption, are the most resistant to such treaties? Where is that all-powerful and neutral regulator who will put a tight cap on global emissions and then distribute emission rights fairly across countries? In other words, achieving sustainable development will require making major shifts in production and consumption choices, and these shifts will often impose high costs on precisely those groups that have hitherto enjoyed the fruits of environmentally unsustainable production and consumption.

Moreover, the critique of capitalism argues that these unsustainable consumption choices are *driven* by the very structure of the economy. Citizens are taught to consume more, to consume frivolously, to never be satisfied, because the capitalist system of production depends on ever-increasing profits and ever-increasing economic growth. The same system also requires a pool of poor laborers who can be relied on to work at a minimum wage, and so capitalism ensures the poverty of many in order to maximize the profits of a few.

Colonialism was in a sense the extension of such exploitation across national boundaries, and neocolonialism persists today in the form of unequal terms of trade set by the global North. The solution then lies in reducing the unequal distribution of power, both economic and political, within and across nations.

TECHNOLOGICAL ARROGANCE

Can all environmental problems be explained through the lens of political economy? While their persistence might be so explained, the origins of at least some environmental problems lie elsewhere. The example of DDT comes to mind. Rachel Carson's work points to the flaws in a reductionist postwar science and technology triumphalism that claimed humans can and should enjoy complete mastery over nature. It was this mindset that led to the invention and deployment of DDT as a pesticide without thinking through and testing for the consequences of introducing such a chemical into the environment. Of course, as the political economy argument predicts, companies manufacturing DDT spent large sums to discredit Carson's work, but the origins of the problem did not lie in capitalism per se.

The case of atomic energy in India is even starker. The Indian atomic energy program is unique in that it has been consistently championed and led by scientists, not by private companies (since this sector is completely state-owned in India), nor even by warmongering politicians. These scientists have persistently ignored the environmental challenge posed by uranium mining or nuclear waste and denigrated the fears of communities forced to live next to nuclear power plants. Data on birth defects around uranium mining areas have failed to shake their faith in the appropriateness of their technology.

Many other examples of technologies with major socio-environmental side effects abound, such as the construction of large dams across rivers to the detriment of people and ecosystems or the indiscriminate use of chemical fertilizers

in agriculture. While the vested interest of the corporate sector might play a role in continuing with technologies even after their ill-effects become known, the independent role of reductionist knowledge systems in devising and championing such technologies seems incontrovertible.

INNER CHANGE

A third perspective suggests that the problem is not "out there" in the structures of society, be they structures of material power or structures of thought. The problem is "in here"—in the individual's value systems and culture. To put money into a PES system for wildlife conservation, we must first want wildlife conservation, and then assume that the PES scheme will achieve it. To lobby for public transport in the teeth of pressure from the car industry, we must first care about future generations and then know something about the impact of fossil fuel consumption on their lives. To generate scientific knowledge that is socially responsible and invent technologies that are socially useful, we must first understand and internalize ideas of social responsibility and usefulness, not just deify curiosity and inventiveness. And to demand that an industry stop polluting a river, we must be moved by a sense of fairness and environmental justice.

The same may be said about problems of war and poverty. The structural constraints of political economy provide only partial explanations for the presence and persistence of these phenomena; the problem might lie within us, if humans do not cherish peace or hate destitution strongly enough.

Of course, a dialectic exists between external structures and individual values. Individuals do not acquire values in a vacuum, but are largely socialized into holding them, and if society is constantly bombarding messages that glorify consumerism, violence, or competitiveness, it will be hard for individuals to embrace frugality, peace, or cooperativeness. But many social reformers argue that the change has to begin in the individual and will add up to the aggregate. Focusing on changing structures, they argue, is futile unless one can change the minds of those who populate the structures either in their current or restructured form. In Mahatma Gandhi's words: There cannot be a system so good that the individuals in it need not be good.

Different groups share this broad perspective: deep ecologists who say that we must begin to value nature intrinsically, religious groups that preach nonviolence toward humans and nature, and environmental educationists such as David Orr, who says that "the goal of education is not mastery of subject matter, but of one's person."

Differences among the various perspectives regarding sustainable development are not just analytical, that is, in thinking about what causes environmental threats and how best to respond to them. Proponents of Sustainable Development and its various critics also differ in their normative positions. Mainstream Sustainable Development thinking gives primacy to efficiency over equity or sustainability. Pollution, according to this view, is not unfair or unjust or a violation of human rights. It is inefficient because (and only to the extent that) it produces sub-optimal levels of well-being aggregated across producers and consumers.

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On the other hand, the core concern in political economy analysis is often equity or justice. The hardcore conservationists or deep ecologists believe strongly in the rights of nonhuman species, while, oddly enough, they are willing to ignore issues of fairness among humans, such as when forest-dwelling communities are displaced by wildlife conservation programs! Some critics of modern science and technology have valorized "traditional" knowledge, presenting a rather conservative perspective on issues of social justice.

TOWARD A NEW SYNTHESIS

The challenge for sustainable development thinking is to bring these somewhat disparate perspectives into at least a dialogue, if not a convergence. The starting point in such a dialogue will need to be the acceptance of an expanded normative framework. It will have to be recognized that a broad notion of environmental soundness includes not just long-term sustainability but also intra-generational environmental justice and quality of life.

And a broad notion of well-being will have to include more than just freedom from crushing material deprivation, ill-health, ignorance, and

other components articulated in Amartya Sen's idea of "development as freedom." It must also provide a space for experiencing Nature for its own sake, for its uplifting of the human spirit.

The term development itself is problematic in some ways, as it keeps the focus on the global South, when in fact more radical changes are required in the global North in the form of de-development or de-growth. In other words, sustainable development will have to be redefined as the ecologically sustainable and socially just pursuit of basic material and non-material well-being.

A synthesis at the analytical level seems much more difficult. The intellectual history of each perspective has been, perhaps inevitably, somewhat mono-dimensional. The hard-core structuralists, for example, deny any significant agency for the educationists; teaching enlightened new attitudes, they say, is futile in the face of larger economic forces. They also deny any space for those who would try to reform science and reorient technology toward the social good, because technology is seen as simply the product of social structure.

Such intellectual extremism does not sit well with reality. The dialectical relationship between structures and individuals seems obvious to those who try to bring about social change. Farmers may behave like classical profit-maximizing individuals and deplete groundwater when no institutions of collective management exist. But they are also capable of responding to more progressive ideas. In the Hivre Bazaar village in Maharashtra in western India, for example, a fragmented rural community was revitalized after farmers were persuaded to adopt limits to groundwater use that ensure both sustainability of the resource and equity in the way its benefits are shared.

Indeed, it appears practitioners may have stolen a march over intellectuals in working toward a synthesis. In the Ecuadorian Andes, communities are using "room to maneuver," as Anthony Bebbington puts it, to develop livelihood strategies that balance tradition and modernity, and that engage with the state while maintaining autonomy. Groups in southern Argentina responded to a post-2001 economic crisis with a localized restructuring that went beyond the economic into the political and ecological realms. Members of the de-growth movement in France and Spain use a combination of alternative technologies (renewable energy, waste recycling), individual lifestyle choices, and strategies for restructuring economic relations through barter to reduce their ecological footprint.

Initiatives like these can perhaps provide a practical basis for dialogue on the goals and means of an alternative, more meaningful, and more sustainable concept of sustainable development. ■