World Bank 2000 and the Unsustainability of Economic Growth

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Abstract:

A review of the World Bank's millennial development report reveals that it sabotages its own good intentions by accepting a flawed premise. This paper shows that, in espousing economic growth as a hallmark of development, WB2K's new unified approach, like traditional approaches, merely reinforces the problems it means to solve. The work of anthropologists, ecologists and alternative economists is used to show that economic growth 1) is thermodynamically unsustainable, 2) creates ecosystemic instability which, among things, increases the probability of human extinction, 3) drives population growth, exacerbating ecological problems, and 4) generates and supports hierarchical social structures which yield unequal resource distribution and which themselves are systemically unsustainable. Through an understanding of the ecological perspective, we can push past the growth paradigm and find optimistic alternative paths.

A Matter of Vision

In its millennial development report, the World Bank outlines its Comprehensive Development Framework (CDF), posing a holistic approach in which a diverse set of strategies is employed to fight poverty more effectively (World Bank, 2000: 21). Given the complexity of our global society and the variety of its social problems, the World Bank is to be commended for recognizing the need for multifaceted solutions instead of panaceas (World Bank, 2000: 2). Further, they note the idea of sustainable development many times, indicating an appreciation of the need to pursue ways of improving the human condition which can maintain success through the long term.

All of this is suggestive of the ecological perspective, in which ecology, the study of relationships within living systems, is used as a framework to study other subjects. However, one of the crucial findings of the ecological perspective undermines the CDF as currently formulated. Although the report notes, in the very first paragraph of its forward, that "development must move beyond economic growth to encompass social goals" (World Bank, 2000: iii), the World Bank bases nearly every aspect of its CDF on economic growth, which I argue is not sustainable.

In many ways, growth is desirable, yielding improvements from necessities like health-related infrastructure and food to conveniences and luxuries. Further, its historical feasibility has made growth appear to be the common sense hallmark of a healthy economy. However, its success has blinded us to its unsustainability. Only within the last two centuries has the science relevant to this analysis been developed, and only during the 20th century did we begin to witness the broadest proliferation of the negative unintended consequences of growth.

The foundation of this analysis involves understanding exactly what the human economy

is. Herman E. Daly, an economist who worked at the World Bank from 1988 to 1994, suggests that we are limited by what Joseph Schumpeter called a preanalytic vision. Since analysis must start with something to analyze, the something is given by a preanalytic cognitive act Schumpeter called "Vision." Whatever is omitted from this cannot be recaptured by subsequent analysis (Daly, 1996: 46). Daly suggests that our traditional economic vision is of an isolated, closed system in which there is a circular flow of goods and services from firms to households and of factors of production from households back to firms (Daly, 1996: 47).

Such a vision ignores the physical dimension of that which flows within the circle, allowing the possibility, even desirability, of unlimited growth. Yet only abstract exchange value flows in the circle. Completely ignored is that to which value is added (Daly, 1996: 62). With no resource base, there would be nothing with which to do anything within the circle: "Adding value is more like multiplication than addition — we multiply the value of 'stuff' by labor and capital. But multiplying a zero always gives zero" (Daly, 1996: 64). To account for physical material, one needs to view the economy as an open subsystem within the larger system that is the Earth. Since the Earth is finite, the human economy can grow, at most, only up to the size of the Earth itself (Daly, 1996: 47-49). The human economy is thus, as with any species, simply our ecological niche, the sum total of the Earth's resources used by humanity. As the science of ecology has developed, this view has more and more represented common sense. Indeed, it is only from this perspective that the idea of sustainable development makes any sense. If the economy was not limited by a larger system, it would not need to worry about what activities could not be sustained (Daly, 1996: 7).

The Unsustainability of Economic Growth

According to the World Bank itself, "A development path is sustainable only if it ensures that the stock of overall capital assets remains constant or increases over time" (World Bank, 2000: 28). Anything that reduces long-term ability, though it may yield temporary success, cannot be said to sustain. A complete explanation of why economic growth fails to meet this definition of sustainability is beyond the scope of this paper, but a summary of the key arguments helps clarify how ignorant the World Bank is of the consequences of the growth on which it so strongly relies.

Of fundamental importance is the thermodynamic argument. The Earth maintains energetic equilibrium with respect to the rest of the universe and is thus effectively a closed system (Hardin, 1993: 76). The laws of thermodynamics ensure that if energy on Earth is used at a rate higher than that at which the sun replenishes it, the Earth's entropy increases irreversibly, making it ever more difficult to accomplish work (Deléage, 1989 / 1994, 42). Economic growth hinges upon an increasing resource usage rate, ensuring, in a finite world and in contrast to the World Bank's own definition of sustainability, that the stock of overall capital assets decreases over time. Sustainable growth is a thermodynamic contradiction in terms, and to ignore an economy's exchange with its environment is to treat it as a perpetual motion machine (Daly, 1996: 34).

Long before resources would ever approach depletion, though, growth would succumb to to ecological constraints. Beyond the possibility of their depletion, we alter our taps, as when we maximize agricultural output, but this encourages monoculture and genetic uniformity, increasing crop vulnerability (Altvater, 1989: 83; Deléage, 1989 / 1994: 41). As for sinks, ecosystems have

particular amounts of waste they can withstand while maintaining normal function. The more our production processes create by-products which are not easily assimilated back into ecological cycles, the more we tend to exceed these absorptive capacities. Finally, all this activity contributes to species extinction, reducing the biodiversity which is also crucial to ecosystem function. *WB2K* itself notes that even the lower estimates of global extinction rate are approximately 1,000 times the natural rate (World Bank, 2000: 102), yet it also values some species' existence at as low as $44 (World Bank, 2000: 103). This makes clear *WB2K*'s failure to understand the real threat of accelerated extinction: in a complex ecosystem, seemingly worthless species may be crucial to the existence of more valued species. In addition, basic population ecology models show that a species can fall victim to the paradox of enrichment, in which it overexploits its prey, drives them to extinction, then starves (Gotelli, 1998: 140). The upshot of all of this is that a species pursuing growth creates the ecological conditions for its own extinction.

Population ecology models of competition and predation also yield valuable perspectives on population growth. These reveal that a species' carrying capacity is not an inherent constant but a variable, determined only in relation to the carrying capacities of other species (Gotelli, 1998: 102-103). Further, they reveal that increasing prey populations, i.e., food production, as an attempt to fend off starvation simply ends up requiring greater numbers of predators, i.e., people, to control the prey populations (Gotelli, 1998: 129). Thus, increasing food production is the very engine that drives population growth, alleviating acute hunger while causing its chronic counterpart. Further, the prediction of a leveling off of human population (Crossette, 1999: 5) actually misapplies population growth models. More likely, a population with our characteristics

would greatly overshoot maximum stable carrying capacity, after which food sources would crash and, consequently, our population (Gotelli, 1998: 32-4).

Even *WB2K* acknowledges that further increases to the food supply will be difficult, especially if they are to be sustainable (World Bank, 2000: 28). But, as Daniel Quinn puts it, posing the escalation of a "food race" to parallel the nuclear arms race, every win on the food side is answered by a win on the population side (Quinn, 1999: 113). In a very real sense, there is no population crisis per se. Population growth is simply an epiphenomenon of economic growth, of the commandeering of ever more resources that leads to a global consumption crisis. Pursuing economic growth, we are caught between the Scylla of population growth and the Charybdis of increased per capita resource use, for these two factors multiply to yield to total size of our unsustainably growing economy.

A final way in which growth is unsustainable is understood through theories of organization and state formation. A common thread among such theories is that a society that increases in size must elaborate its organization if it is to remain unified and integrated (Carneiro, 1967: 360). In response to population growth, then, our various social structures — political, economic, religious or otherwise — must, to keep in tact without fissioning, become more complex and hierarchical, bringing, by definition, inequality. Further, the complication process itself is unsustainable. Complex systems are profoundly maladaptive since, instead of maintaining flexible responses to stress, their many interconnections mean that change in one component is likely to have a ripple effect, changing the whole system: diversity and flexibility diminish, and a failure in one element must spread (Yoffee, 1988: 5, Dryzek, 1992 / 1994: 181). Bruce Mayhew's analysis of complexity in population systems reveals how increasing complication

makes system maintenance ever more difficult, eventually reaching a point at which the system must either simplify or collapse (Mayhew, 1982). While at first the state is strong, like economic growth, it becomes vulnerable in the long run.

Towards Sustainability — An Optimistic Conclusion

Daly grants that the World Bank's environmental standards are generally higher than those of most of its member countries (Daly, 1996: 9). Indeed, *WB2K*'s discussion of protecting the global commons acknowledges the importance of biodiversity and both the devastating potential and primarily anthropogenic cause of ozone depletion and severe climate change. The main problem is simply that it is only willing to address symptoms, yielding low potential for creating lasting solutions. The closest *WB2K* gets to the root causes of unsustainability is this uninspired statement: "In the long term, renewable energy sources may play a more important role in production, but wind and solar energy are not yet feasible economic substitutes for fossil fuels on a large scale" (World Bank, 2000: 97). Renewable sources *must* play a more important role in production because non-renewable sources are, in fact, *non-renewable*!

Most natural laws are statements of impossibility (Hardin, 1993: 42; Daly, 1996: 104). Through understanding physical laws, so often involving limits, we have made great strides in science and technology. Biological or ecological laws, though, may hit too close to home, so we often fail to see how they can be empowering, for "if we know that something is impossible then we can save an infinite amount of time and money by not trying to do it" (Daly, 1996: 104). Ironically, though, many ecological thinkers defend proposals traditionally thought of as pessimistic, oblivious that their proscriptions do not necessarily follow from their analyses. A

truly ecological perspective can point the way toward genuinely optimistic solutions.

Perhaps the most threatening idea in the analysis of unsustainability, the relationship between food and population, provides the best example. Since the principles of population dynamics apply equally to all species, solutions to population problems might be applied equally to humans without falling prey to the double standards of human exceptionalism. In managing non-human species, bottom-up measures, involving regulation of the inputs to a system, appear to yield much more stable solutions than top-down measures, which usually involve simply killing off either "overrepresented" species or the predators of "underrepresented" ones (R.F. Rockwell, personal communication, November 16, 1999). Kenneth Boulding, Garrett Hardin, Daly himself and many other proponents of the ecological perspective believe, however, that, population control and wealth redistribution schemes are the keys to alleviating poverty in a sustainable world. However, like many of the World Bank's proposals, these are merely management techniques, addressing symptoms and not causes. While management may have its place, it can never be the sole source of stable, lasting solutions. Bottom-up measures may provide ways to generate positive outcomes rather than fend off negative ones.

Discussing famines, Amartya Sen rightly notes that our problem is not that we have too little food but that our entitlement schemes yield insufficient distribution (Sen, 1981: 7). But rather than institute massive redistribution schemes, requiring great effort while evoking resistance from powerful hierarchies, we might consider altering the system which creates inequalities in the first place. Since we know that increasing food production causes population growth which then contributes to inegalitarian social structures, we might consider reducing or stabilizing the amount of food being produced. In addition to discouraging growth and therefore hierarchicalization, this

will also lead away from industrial agriculture. Reducing our dependence on chemicals, genetically engineered crops, heavy machinery and monoculture, agriculture would become easier and would generate healthier, more robust foods.

Another path toward de-hierarchicalization is localization, the assertion of self-determination among subnational entities. This phenomenon is met by *WB2K* with decentralization, an effort by states to reassert power even as certain functions are granted local control. Allowing genuine localization, though, can transform small numbers of hierarchical structures into a greater number of flatter, more equal ones. Municipalities and regions can still come together for whatever endeavors they wish to pursue in common while taking control over the issues they want under their own purview.

Lest one imagine that reducing food production and pursuing localization require management to be realized, Quinn suggests a way to bring these concepts together in a bottom-up manner. He poses that farmers might enter agreements with their communities or regions in which the farmer would provide enough food for the stable maintenance of the area's population and, in return, would receive any number of forms of non-food support. This would obviate the need to charge per unit and thus the incentive to produce ever more, even as it ensures stable, local support for both farmer and community (Quinn & Thornhill, 1999). This is not meant to be a single solution applicable everywhere but merely representative of the kind of thinking that can come from the ecological perspective.

Daly reminds us that the World Bank exists to serve the interests of its member nations. It has no mandate to support globalization, "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" (Daly, 1996: 92). Growth inevitably generates areas of scarcity and risk; where, in short, populations cannot live healthy lives. But the fact that we cannot grow indefinitely in no way denies the possibility of improving the human condition. Indeed, only through understanding that growth exacerbates these problems can the World Bank's fulfill its dream of a world free of poverty.

On growth and development, Daly suggests that the two processes are distinct, "sometimes linked, sometimes not. For example, a child grows and develops simultaneously; a snowball or a cancer grows without developing; the planet Earth develops without growing. Economies frequently grow and develop at the same time but can do either separately" (Daly, 1996: 167). Even the World Bank admits that growth does not trickle down and that development must address human needs directly (World Bank, 2000: 1). By viewing development as qualitative improvement rather than quantitative expansion (Daly, 1996: 1), we can find ways to get more of what we want, rather than just more (Quinn, 1999: 89). None of this suggests that we must all live in poverty at some minimal level of resource use. There is no prohibition on sewerage, sanitation or even vehicles and movie theatres. For all the need to acknowledge limits, sustainability has one requirement: that, on average, the human economy not pull resources out of the Earth at a faster rate than the Earth can replenish them. Within this simple guideline, anything else is possible. In the end, seeking sustainability is not about what humanity has to give up, but what we stand to gain (Quinn, 1999: 86).

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