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BOOK REVIEW

AN INTRODUCTION TO ECOLOGICAL ECONOMICS

Authors: Robert Costanza, John Cumberland, Herman Daly, Robert Goodland and Richard Norgaard; **Year of Publication**: 1997; **Publisher**: CRC Press.
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Like Mother Nature gives us free-of-charge many vital things in support of our life, this book is a freely downloadable public good meant for harmoniously connecting humankind with Nature. Robert Costanza and Herman Daly are the two economists among the authors, who can be taken as the famous founders and proponents of Ecological Economics as a new, transdisciplinary branch of heterodox economics, that rose in the mid-1980s.. For these authors, economics is embedded in the broader ecosystem that supports all human activity, and so there are both limits for economic growth and opportunities to improve long-term human well-being.

The recent trend of annually celebrating the Earth Day, and the essays written in its favour, have made me pick up this great book of the late 1990s. Reading it has made me realize how it is more and more urgently relevant as time passes by making me feel gutted about environmental damages.

Unfortunately, most economics departments do not offer Ecological Economics as a compulsory or optional paper to undergrad and postgrad students. What is usually offered is the so-called Environmental Economics. This is because they worship conventional or mainstream economics as the right economics. The Gund Institute for Ecological Economics at the University of Vermont in USA is an exception, and similarly, the GDAE at the Tufts University. So is the Schumacher College in the UK.

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The Indian Society for Ecological Economics at the Institute for Economic Growth in Delhi, is spearheading its popularization in the Indian academia.

It is high time the economics students internalized the limitations of the conventional economics and started appreciating the case for Ecological Economics as a tendency of good economics. This book, along with the others mentioned below (which are also available as freely downloadable public goods), robustly establishes this viewpoint—which is challenging for the econ student and teacher to absorb, though. Nothing but gratitude swells for these writers for giving us the talk we need to walk.

Reservations about conventional economics are expressed as follows. First, it does not really recognize the importance of scale—the fact that we live on a finite planet, or that the economy, as a subsystem, cannot grow indefinitely into this larger, containing system. There are some biophysical limits there. The mainstream view thinks that technology can solve any resource constraint problems. The truth is that exponential growth is impossible. In nature, things do not grow forever. If we want to tie economics back to nature, then we we have to recognize that the economy is going to stop growing at some point. That is not a bad thing. That is the way natural systems work. This means that we need to shift away from sort of brute-force competition to expand, towards steady state by more cooperative, alliance-building, stable kinds of relationships. Secondly, current market prices do not capture the full costs of an economic activity that depletes resources or damages natural systems or inflicts costs to human health and well-being caused by pollution or other side effects of the activity. These excluded costs are called "externalities". They are defined as costs that are not included in the price of the product but are shouldered by a third party, outside the producer/seller and buyer/consumer. Conventional economics is focused largely on markets and has been pretty lax at even recognizing that the externalities exist, much less focusing on trying to find ways to internalize them. Companies and countries that are currently benefiting from keeping externalities external will not be able to continue along that path. Recessions are one manifestation of that. We are hitting the limits of inputs like fossil fuels. When oil prices skyrocket, growth will be cut off. Indefinite growth of output is not possible because of the impacts on climate. Growth produces CO_2 that causes melting of the ice caps and sea

level rise and disruption of the weather, which affects agriculture. All of that eventually will put a ceiling on the continuous growth of the economy. Things like the Genuine Progress Indicator (GPI) try to separate the costs of growth from the benefits. Since 1975, our costs have equaled our benefits, and GPI has basically leveled off since 1975, even though GDP has more than doubled. If we really want to improve GPI, then there are ways we can do that without increasing GDP. In fact, GDP could decrease, and GPI could go up. We get what we measure, and if we are not measuring the right things, we are going to be getting the wrong results. Thirdly, conventional economics is not bothered about fair distribution of GDP. More unequal societies are less productive and less cooperative even as quality of life goes for a six. Power imbalances facilitate environmental degradation and the poor suffer the consequences. Fourthly, conventional economics is obsessed with efficient allocation of resources. But to think that the market is efficient at allocating resources requires a long list of assumptions that are seeming less and less realistic—not the least of which being that there should be no externalities! We need to get rid of natural and social externalities. Pricing carbon, pricing impacts on other natural resources and ecosystem services are ways of fixing this. Quantifying the external environmental cost of a company and using that information to inform investors and the companies themselves about how they can reduce their external cost is a must now. Someone getting a bigger house causes other people to think they need one. They buy houses that are outside their price range, and over-extend themselves and have to work harder in order to pay off the mortgage. And, actually, their quality of life suffers rather than improves by having this larger house. This is a social externality. To fix this, we need to change the income tax rules so that we tax only consumption and not savings and we tax consumptions at a very high, progressive rate. And investment in things that are going to be socially more productive should not be taxed at all. Market cannot be used to fix the market. We have to use the government and other kinds of quasi-government and community institutions to fix the externalities problem. Information is not a private good that is rival and excludable. The more you share it, the better it is. So privatizing information does not really help society. It may help individuals who can prevent others from using it, but that does not help society. So, we need to move back to more publicly funded research and free access to information.

In light of this, Ecological Economics is an attempt at improving and expanding economic theory to integrate the earth's natural systems, human values and human health and well-being. In the mainstream economics, the primary goal is to increase goods and services produced by human industries ("built capital"), and the GDP is a national measure of the total value of goods and services produced annually. The mainstream view assumes that ever-increasing GDP is desirable, possible, and that everyone benefits. Ecological economics, by contrast, takes a broader perspective and recognizes that there are more things that contribute to human well-being than just the amount of stuff, such as health and education (human capital), friends and family (social capital) and the contribution of the earth and its biological and physical systems (natural capital). Its goal is to develop a deeper scientific understanding of the complex linkages between human and natural systems, and to use that understanding to develop effective policies that will lead to a world which is ecologically sustainable, has a fair distribution of resources (both between groups and generations of humans and between humans and other species), and efficiently allocates scarce resources including 'natural' and 'social' capital.

It may be noted thus that ecological economics talks about four types of capital. Built capital is the type of capital we are used to thinking about in conventional economics. It refers to goods and services created by human industry—buildings, cars, appliances, roads, toys, etc. Natural capital is a concept that recognizes the importance and value of the goods and services provided by nature. It goes beyond the traditional consideration of natural products as raw materials for conversion into goods (trees into houses or paper) to consider functions that are provided by planetary systems (breathable air, a stable climate) or local ecosystems (flood protection by coastal wetlands, and drinking water purification by forests). Sometimes the monetary value of these ecosystem services can be calculated, such as the cost to replace them with build capital (coastal wetlands with levees). However, some natural services are priceless. They are essential for life, and irreplaceable (breathable air). Social capital refers to the positive benefits gained through our interactions with others (friends, family, social groups) and the common structures of our society (languages, institutions, educational system, laws). It makes a major contribution to our collective well-being, but is hard to quantify in

monetary terms. Finally, human capital refers to the sum of our own health, personal experiences, education, talents, skills and interests. Collective human capital (and social capital) cannot be maximized unless there is social justice, equivalent access to the opportunities that our society provides.

To sum up, ecological economics is concerned with the problem of assuring sustainability in the face of uncertainty, and aims to maintain the resilience of ecological and socioeconomic systems by conserving and investing in natural, social and human assets. It is, thus, undoubtedly good economics.

Be that as it may, this subject has lately come under heavy fire. Initially, it was considered better than Environmental Economics as a byproduct of conventional economics as it represented a departure from reliance on the use of mainstream economic modeling and branched out to actively engage with and incorporate the ethical, social and behavioural dimensions of environmental issues. But over time it has reached the point of senescence. As Sogoff (2015) says, it had set out to be a redemptive science in order to right size the human economy for its natural infrastructure. "But today, ecological economics finds itself at a political and academic dead end. Trapped in the amber of its mathematical models and conceptual constructs, ecological economics presents an object lesson for those who would appeal to scientific theories, rather than to popular concerns, to provide an intellectual and political basis for an effective green politics…Ecological economists ended up fully embracing the slogan of mainstream welfare economics that protecting the environment is a matter of getting the prices right. A discipline that just a decade or two earlier had insisted the market was embedded in nature had learned how to embed nature into the market." What is ecology or nature is still debated. That it cannot be made compatible with economics is another grey area. If we go by the writings of Sogoff and the like intellectuals, then the moral/ethical fervor of environmentalism and the politics based on it will take care of Nature, not environmental economics and ecological economics. Modeling and monetizing the environment will not take care of it. Economics devoid of the ability to address ethical issues is useless to address environmental disputes and damages.

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