

Paradoxes of Sustainable Development and Abandonment of Nature

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Rec date: Jun 11, 2014; Acc date: Jun 24, 2014; Pub date: Jun 27, 2014

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Abstract

The Economics of Ecosystems and Biodiversity (TEEB), the Convention on Biodiversity (CBD) and various international environmental agencies have developed the concept of 'ecosystem services' and 'natural resources' to describe ways in which humans benefit from healthy ecosystems. Biodiversity was recognized to be of great social and economic value to both present and future generations. According to its critics, resource approach of nature might be inadequate in protecting non-human species that are not directly used for human welfare since the economic capture gives no grounding for prohibiting or even restricting their destruction. This article aims to examine environmental challenges through contesting discourses of sustainability and to discuss implications of these conceptions for the sustainable future for human security.

Keywords: Anthropocene; Biodiversity; Conservation; Ecocentrism; Sustainable development

Introduction

In the age of the Anthropocene, almost all the planet's ecosystems bear the marks of our presence. The greatest challenge has become how to ensure continuous human development (and indeed survival) in the world of shrinking resources and degraded environment. The ecosystem concept encompassing the idea that flora and fauna interact with the environment to form an ecological complex whole has been central to the public perception of ecology and to increasing awareness of environmental degradation [1]. It is recognized that in the era of the Anthropocene the population has swelled, and so did the use of many unsustainable resources, that we are disrupting the grand cycles of biology, chemistry and geology by which elements like carbon and nitrogen circulate between land, sea and atmosphere. Yet, it was argued and hoped, since humans are rational beings, we may well be able to address and effectively solve the problems of our own creation.

One such strategy is making translating the idea of environment into the concepts of 'natural resources' and ecosystem services'. The concept of 'ecosystem services' has been developed in order to describe ways in which humans benefit from healthy ecosystems [2]. Recent findings compiled by a study of The Economics of Ecosystems and Biodiversity (TEEB), indicate that those corporate chiefs who fail to make sustainable management of biodiversity part of their business plans may find themselves increasingly out of step with the market place. Companies with Net Positive Impact (NPI) on Biological Diversity are designated as winners in resource-constrained world, with one in four global CEOs seeing biodiversity loss as a strategic issue for business growth (UNEP 2013). The combined optimism of the ability to preserve nature through economic valuation and to ensure the future prospects of human development through economic and development and innovation led to the belief that commodification of nature will lead to both socially and ecologically beneficial results.

This article aims to outline the criticism of 'environment' such as the one embedded within 'natural resources' and ecosystem services' perspectives and address the paradoxes of sustainable development that arise from this conception. We shall then briefly address alternative visions for a better future.

Theories of Development and Innovation

It appears that despite growing scientific consensus on major environmental threats, as well as, resource depletion, societies are largely continuing with business as usual.

Wijkman and Rockström [3] provide a number of explanations as to why political leaders and general public seem to be indifferent to environmental challenges such as climate change, such as lack of adequate education, unwillingness to change habits, powerful business interests which strongly defend business as usual models and the like. Rejecting neo-Malthusian pessimism, sustainable development supporters prefer to speak not of absolute limits to Earth's carrying capacity or natural resources but rather of social resilience and technological ability to address environmental challenges.

It is believed that economies use material resources more intensively, until a threshold is reached after which structural changes in the economy lead to progressively ecologically beneficial technologies. It is believed that high income levels and economic growth leads to environmental improvement [4]. Both international organizations and commercial partners support the idea that ecosystem management will lead to long-term sustainability. Ecosystems promote human well-being through the various services they provide. However, the idea of managing environment has also met both ethical and practical criticism.

Critical scholars have noted that 'sustainability' implies continuity and balance, while 'development' implies dynamism and change. Thus, environmentalists are drawn to the 'sustainability' angle, while governments and businesses place the focus on 'development', usually meaning by this term GDP (Gross Domestic Product) growth [5]. Expanding the 'economic pie' to include the most dispossessed, will

necessarily include even more natural resources being consumed (Spring 2004).

What is “Environment”?

Putting a price on ‘ecosystem services’ or ‘natural capital’ became increasingly prominent in international political debates since the nineteen eighties [1,5]. In the World Bank’s [6] statement on environment and biodiversity, ‘biological resources’ are perceived as providing the raw materials for livelihoods, sustenance, medicines, trade, tourism, and industry.

The market-based valuation techniques are inadequate as they do not seem to capture the expanse of many of the ecosystem services as well as ecological identity, emotional attachments to nature, and intrinsic value of nature [7]. In discussing the case of deep sea ecosystem services, Armstrong et al. reflect on the non-monetary values, such as that of knowledge as they reflect that there is also a substitution between different kinds of value: ‘as our knowledge of deep-sea environments increases, there may be a reduction in value related to wonder or awe for the unknown, and an increase in value associated with marveling at the intricacies of the natural world and our ability to decipher its secrets’ [8].

Concerns with depletion of resources, equity in distribution of resources, as well as, human health and welfare exclude consideration of an ecocentric perspective and reduces the ‘environment’ to that which only serves social and economic interests of human beings [9].

Cafaro and Crist [10] examine the larger issue that we are facing from many “conservationists” who are ready to give up on biodiversity protection, wilderness, to focus on “working landscapes” or human directed lands [10]. Utilitarian approaches and (implicit) abuse by mainstream economic activities and institutions cannot be easily dismissed as they also offer alternative ecological possibilities. Researchers have shown that given present socio-economic conditions, putting a price on nature may be the only way to guarantee its preservation [8,11,12]. The mainstream discourse on sustainable development originates from the ‘big players’ such as The World Bank, the IMF, and the governments of the neo-liberal consumerist societies [13-15]. These organizations promote the oxymoronic goal of maintaining economic growth, re-distribution of wealth and simultaneously keeping the health of the ecosystem intact [16].

Many observers have noted that the idea of ‘progress’, ‘modernity’ and ‘development’ is relative and that the enterprise of development [17]. In fact, formal (Western) education may be complacent in perpetuating consumerist culture [18], and condemning traditional ways of relating to each other and to elements of nature to the realm of ‘archaic practices’ [19]. A related concern is that mainstream discourse on sustainable development tends to ignore the deep ecology perspective [20] and exhibit anthropocentric bias [21,22] arguably absent from traditional societies [23]. Anthropocentric view of nature has obvious implication for how environment both in developed and developing countries, is conceived. In the race to grab a piece of economic progress, entire countries, governments and multinational corporations might be stripping away what has originally been a sustainable way of life.

To illustrate this point, let us consider the death of Cambodian anti-deforestation activist Chut Wutty, the Director of environmental watchdog Natural Resource Protection Group (NRRPG), who was gunned down by the police while exposing illegal logging activities to a

journalist. In Cambodia, for example, land grabs for agricultural development and logging by private firms, such as Economic Land Concessions (ELCs) held by agro-industrial companies by private firms, are common-place [24,25]. Conservation International has remained silent on this issue, refusing even to acknowledge the existence of logging. Milne [26] commented that the tragic incident revealed not only the culpability of government officials who abuse their powers to profit from logging, but also the hypocrisy of NGOs like Conservation International, in order to maintain the façade of effectiveness, along with their government and donor relationships.

Why is Anthropocentrism ‘Bad’ for Biodiversity and for Humanity?

Remarkable in the case of death of Cambodian environmental activist is the complacency of a number of organizations, including the local authorities but also large conservation organization, in the case when environmental protest was tacit, primarily expressed through re-affirmation of market mechanisms propitiated by neoliberal economies [27]. Related to this is concern for whether any modern industrial society is willing to resolve environmental problems that are not directly related to human welfare. Biodiversity protection is not necessarily contingent with social and economic interests may be inadequate in addressing biodiversity loss due to human dependency on monocultures and to pressures of growing population [10]. The worldview of “resourcism” [28-30] tends to reduce nature and environment to nothing more than a resource base for the growing human population.

Recent publications in *Nature* [31] or *Ecological Economics* [2] stress the importance of biodiversity preservation. Isbell et al. [31] argue that plant biodiversity needs to be preserved in order to benefit complex human systems. ‘All’ biodiversity is needed in order to address human needs for clean water, clean air, breakdown of waste, since complex ecological systems are self-managing. This argument is illustrated with examples of a particular type of insect fertilizing a particular kind of plant that could be crucial for the pharmaceutical industry.

However, anthropocentric view of nature is not likely to lead to decisions that benefit preservation of biodiversity, particularly species of animals and plants that can be seen as redundant [32]. Preservation of ‘some’ biodiversity would be sufficient to satisfy human needs. Haring [33] argues that the public should not be influenced by environmentalists into feeling guilty about extinction of certain species, as humanity does not depend on them. There are many examples in which human economic development priorities seem to overshadow biodiversity protection measures. .

For example, the World Wide Fund for Nature [34] has recently announced that there are only 85 Mekong Irrawaddy dolphins living in the wild. These river dolphins are critically endangered and live in a small stretch of the Mekong River, between Laos and Cambodia and particularly threatened by the building of the Don Sahong Dam. Already threatened from accidental entanglement in fishing gear and low calf survival, a newly proposed hydropower project right next to their home could herald their extinction. The dam builders intend to use explosives to excavate, creating strong sound waves that could potentially kill the dolphins, which have highly sensitive hearing structures. Increased boat traffic, changes in water quality and habitat destruction pose major risks to their survival.

This leads to much larger ethical questions about the Anthropocene and the perception of environment as a resource to ensure future human livelihood. In the words of Eileen Crist [30].

The Anthropocene has morphed into a discourse that is organizing the perception of a world picture (past, present and future) through a set of ideas and prescriptions that is tenaciously anthropocentric; indeed, the championed name itself-Anthropocene, or the age of Man-evokes the human-centeredness that is at the root of our ecological predicament... The discourse of the Anthropocene refuses to challenge human dominion, proposing instead technological and managerial approaches that would make human dominion sustainable. By the same token, the Anthropocene discourse blocks from consideration the possibility of abolishing a way of life founded on the domination of nature.

Prioritizing of economic and social agendas at the expense of non-humans has led to greater crises of unsustainability. While “raising the standard of living” may be nebulous shorthand for the worthy aim of ending severe deprivation, translated into policy the expression is a euphemism for the global dissemination of consumer culture [10]. Critical scholars have noted that ironically, the moral call for equal distribution of wealth, leads to a greater spread of consumerist culture. Emanating the unsustainable model of Western economic development is likely to result in similar unsustainable practices in the developing countries [35]. Unless consumption pattern in rich countries is somehow made more sustainable, the crisis of resources is likely to deepen [36]. Realizing that indirect impact of policies supporting health and global consumption have a detrimental effect on the long-term availability of resources for future generations, leads one to a more critical strategic thinking about addressing environmental problems [36,37]. In examining the data on the so-called carbon footprint in rich consumer nations, [37] reflects.

These data reveal the dangerous futility of the world’s present growth-based approach to global “development,” especially poverty alleviation. The consumer lifestyles of the wealthy cannot be extended sustainably to the poor using currently available technologies to sustain just the present world population at North American, material standards... would require the equivalent of three to four additional Earth-like planets (and we have yet to account for the additional 2.5 billion people expected by midcentury). By depleting natural capital and eroding life-support systems, continued material growth undermines the future of global civilization.

Alternatives are possible though, and the vision as well as practical steps for achieving sustainability for both humans and other species that share this planet is within reach.

More Hopeful Future

Practically, this means that we need to fundamentally rethink our relationship to the environment and openly address the hidden assumptions of superiority and species’ supremacy within the current sustainable development and Anthropocene discourse. This does not mean the return to primordial roots, however, but it does mean the need for rethinking what ideas of human progress entail. Returning to Crist’s vision of the alternatives to the currently conceived Anthropocene:

Living in integration with wild nature is not a veiled invitation for humanity to return to its pre-Neolithic phase nor does it automatically signal an *a priori* ceiling to technological innovation; nor is it intended

to conjure a naive view of life as an Edenic kingdom. It is not my aim here to recommend what human integration within the biosphere might specifically look like, but instead to contend about the *prerequisite* for such a way of life to emerge: namely, catching “a sideways glance of a vast nonhuman world that has been denigrated by the concepts, institutions, and practices associated with ‘the human’... and also becoming receptive to the view that if the imperative of respecting the natural world’s self-integrity and intrinsic value appears unimposing to the human mind, it is because the human mind has been conditioned and enclosed by a species-supremacist civilization. Only from a perspective of profound deference for the living world can an integrated human life be imagined and created [30].

Vandana Shiva, a prominent Indian anthropologist, represents this view from a non-Western perspective. In her well-known *Monocultures of the Mind*, [38] argues that a mono-agricultural society where trees are seen as nothing more than timber and crop yield stand in contrast to the view in traditional societies; where trees have multiple material and spiritual purposes. Traditional knowledge systems contribute in major ways to the understanding of biodiversity, ecological sustainability and cultural, including agricultural, diversity.

William Rees [37] proposes the alternative “Survival 2100” strategy:

Success in “Survival 2100” could put the human enterprise and nature-the global socio ecosystem-on a new, adaptive, mutually beneficial co-evolutionary path. However, there are plenty of thorns and potholes along the way. The required unprecedented level of mutual trust among nations and the loss of some national sovereignty represent two such major stumbling blocks. Consider, too, the difficulty associated with just one probably necessary sustainability tool-a global system of ecological tax reform (e.g., global carbon taxation or “cap-and-trade” scheme for various critical resources) designed to ensure the true cost pricing of ecologically significant goods and services. Unsustainability may be the greatest example of market failure, but corrective measures that involve significant government intervention in the economy would undoubtedly provoke strident resistance from a world “socially engineered” to worship the market god and to view government-particularly international government-as the devil incarnate.

Such a transformation would not be easy, and yet very necessary if ‘real’ sustainability is to be addressed.

Conclusions

Economists’ assumptions regarding sustainability, justice and efficiency, translated into the framework of sustainable development, with its implicit moral objective of fair sharing of economic (and thus natural) wealth, need to be critically examined [12]. What is at stake is the very formidable idea of human domination as well as predestination in the era of the Anthropocene. We may need to ask whether sustainable future for human security can be achieved in the first place based on the politics of domination over other elements of nature, and the false hope that continuous exploitation of environment can lead to human let along natural sustainability in the long term. The earnest recognition of the ecological values rather than economic benefits may lead to true integration of human interests with those of the entire ecosphere of which all humans in ‘developed’ or ‘developing’ countries are a part.

I would like to conclude by quoting Rees [37] whose vision encompasses both hope and great challenges that need to be undertaken:

Mere information, including scientific analysis of a problem, is generally not enough to stimulate policy reform or effective action. However, assuming a sufficient level of fear, international agreement on the nature of the problem, general commitment to a collective solution, unprecedented political will, and the creative engagement of modern communication technologies, the world community could theoretically *choose* to educate the next generation from scratch in a whole new sociocultural paradigm for survival. This new narrative is essential to override humanity's now maladaptive expansionist tendencies and to enhance other behaviors and predispositions regarding our present cultural fitness. It is even conceivable that cooperative action at the highest levels through something like the "Survival 2100" project would inscribe the new narrative on the resistant psyches of the present generation. Arguably, success in this endeavor is the only way to bring global sustainability within our grasp.

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