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**Article (Accepted version)
(Unrefereed)**

Original citation:

Neumayer, Eric (2000) Beyond growth: against the misplaced focus on economic growth. *Politische Ökologie*, 66 . pp. 19-23. ISSN 0947-5028

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This version available at: <http://eprints.lse.ac.uk/30738/>

Available in LSE Research Online: December 2010

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**Beyond growth: Against the misplaced focus on
economic growth**

1. Introduction

This paper aspires to argue in favour of a simple, but fundamental, hypothesis. This hypothesis is that economic growth is neither the cause of nor the solution to environmental problems and that therefore both anti-growth environmentalists and pro-growth neoclassical environmental economists share a misplaced focus on economic growth. Economic growth is not the issue, environmental problems are. Environmental problems *can* be solved no matter whether or not economic growth takes place and environmental problems *can* be solved without any significant detrimental effect on economic growth. On the other hand, economic growth in itself will not solve any environmental problems.

2. Economic growth as a social goal

Before arguing in more detail why economic growth is not the cause of environmental problems, it might be appropriate to have a quick look at why economic growth is in such great esteem by virtually everyone but some environmentalists. If we define economic growth as growth in a country's gross domestic product (GDP), then economic growth is approximately equal to growth in national income, as GDP is approximately equal to national income. The most fundamental reason why economic growth is a desired goal is that people want to become richer over time, that is they want to command more income over time and economic growth delivers just that. More specifically, economic growth is good for most stakeholders in society and is therefore positively demanded by these groups: Economic growth will mean more profit for business, more jobs and higher salaries and wages for the workforce and higher tax revenue for the politicians.

Against this, it is sometimes argued that while economic growth raises the average or per capita national income, the lion's share of this increase goes to the rich, while the salaries, wages and transfer income of "normal" people hardly rise at all. There is indeed some evidence that incomes have become more unequally distributed over the last two decades or so in some countries (Deininger and Squire 1998). This does not mean, however, that income re-distribution could serve as a substitute for economic growth in an attempt to raise incomes and living standards of the relatively poor members of society. This is because there is not a single example in history of a successful large-scale re-distribution of income, which did not lead into economic crisis that promptly led to an abandonment of this kind of policy. Examples to cite include the UK in the 1970s under an 'Old Labour' government, Chile in the beginning of the 1970s under the Allende government and France in the early 1980s under a Socialist/Communist government. Of course, different countries can have different degrees of inequality, which can be explained by historical factors and the socio-political culture of a country — the United States will always have a higher degree of inequality than the Scandinavian countries. But for any given society, economic growth accompanied by a progressive income distributional policy, is practically the only hope for the relatively poor in developed countries. The same applies even more to the absolutely poor in the developing world. Billions of people live in appalling poverty (see UNDP 1999) and only economic growth, not international re-distribution of income, can better their prospects. Therefore, policies that aim for income re-distribution can and, in my opinion at least, should accompany economic growth — but they cannot replace it.

3. No fixed relationship between economic growth and environmental degradation

The first and most fundamental thing to note is that there is no fixed relationship between economic growth and environmental degradation. In principle, economic growth can occur with increasing, constant or decreasing levels of environmental degradation. This is because economic growth is growth in the *value* of goods and services produced — but this value can grow without any increase in environmental degradation. Surely, the pollution absorptive capacity of the environment is limited, so pollution cannot increase forever. But there is no logical limit to economic growth, i.e. infinite economic growth is logically conceivable as economic growth need not entail an increase in environmental degradation.

4. Why economic growth might be good for the environment

Not only is economic growth conceivable without an increase in environmental degradation, but there are also some arguments for why economic growth might actually be beneficial for the environment in practice.¹ Before I come to this, the reader should note, however, that for most of the arguments below it is not economic growth *per se*, which is beneficial for the environment, but it is policy and other changes that become more easily achievable with economic growth — a point to which I will come back at the end of this paper.

¹ To be fair, there are also a number of arguments why economic growth might be detrimental to the environment in actual practice. For a more balanced discussion, see Neumayer (1998) or Neumayer (1999, pp. 76-86).

4.1 The environment as a superior good

One reason why economic growth might be beneficial to the environment is that only rich people might be able to afford granting priority to environmental protection, whereas poor people have to struggle for survival. Counter-examples of poor people granting priority to environmental protection usually depend upon individuals being directly dependent on the sustainable use of a resource or their health being directly, visibly and significantly damaged by environmental pollution.

Economists say that demand for environmental quality is a superior good, that is, a good with an income elasticity greater than one: as incomes grow environmental concern rises more than proportionally. Environmental protection rises more than proportionally with economic growth if demand for environmental quality is a superior good and if the political system is responsive to the preferences of its people — and both theory (Olson 1993) and empirical evidence (Rueschemeyer, Stephens and Stephens 1991; Barro 1996) suggest that the political systems in high-income countries are more responsive to the preferences of its citizens than in poor countries. Given that past environmental destruction is not infinitely persistent and irreversible, the rising share of environmental protection in relation to total expenditure implies that environmental quality increases.

A similar argument is that with rising incomes people become better educated and better able to express their desires and defend their interests. It becomes more difficult with rising incomes to externalise environmental costs upon others, because the latter are better able to fight this degradation of their welfare. Also, richer people are more likely to be aware of environmental hazards due to better education and information. Hence in rich countries more environmental costs are internalised than in poor countries implying that pollution in poor countries is higher.

Even in high income countries, however, in recessionary phases, that is in phases with no or negative economic growth, demand for environmental protection goes down as does its political feasibility. This is because other priorities and fears of economic crisis take over, which renders environmental expenditures to be regarded as a burden that cannot be afforded. Even in high-income countries, therefore, strong and rising demand for environmental protection is dependent on economic growth.

4.2 Capacity for environmental protection is a positive function of income

The last argument was concerned with the demand side for environmental protection. This sub-section looks at the supply side. Rich countries might not only have the higher demand for environmental protection, but they also have the better means for satisfying this higher demand. If you are rich you can better afford spending money on the environment and you have the technical equipment for environmental protection. But it is more than that: rich countries also ‘have the advanced social, legal and fiscal infrastructures that are essential to enforcing environmental regulations and promoting “green awareness”’ (Baldwin 1995, p. 61). This would imply that strong environmental protection policies require a high national income, which would in turn call for economic growth for the vast majority of developing countries.

5. Empirical evidence

So far, the arguments given were rather theoretical. As a next step, it is therefore necessary to look at the empirical evidence. In actual reality, many environmental aspects are positively correlated with income, i.e. they improve with economic growth. The state of the national and sub-national environment in rich countries is

usually better than in poor countries, especially with regard to water, air and soil quality (World Bank 1992; OECD 1998). It is this that makes Beckerman (1992, p. 482) claim that ‘in the end the best — and probably the only — way to attain a decent environment in most countries is to become rich’. What has not been solved yet are often international or global environmental problems such as soil erosion in developing countries, species and biodiversity extinction and global warming. These environmental problems are significant, no doubt, but they can be solved without any major detrimental effect on economic growth. Yes, they are not cheap to solve and they need political will and international cooperation and developed countries must take the lion’s share of the cost burden, but they can be solved without reduction in economic growth.

I cannot do better here in supporting my claim than citing extensively from an article of Robert U. Ayres (1998a, pp. 18f.), who is an intellectual father for many environmentalists and has written a book critical towards economic growth (Ayres 1998b): ‘The advanced industrial countries have actually come close to stabilizing the natural ecosystems within their borders. Air and water pollution have been significantly reduced and the total cost of the “cleanup” effort has not exceeded a few percent of GDP (which could have been less if the money had been more efficiently spent). The problems that remain unsolved are mostly deforestation and land degradation in developing countries or in the “global public goods” category, especially global warming, and over-fishing of the oceans. This is not the place to calculate the continuing economic costs of permanent ecosystem stabilization. However, I believe that a few hundred billions of dollars (spent wisely) would accomplish most of the needed one-time repair and cleanup costs for old messes (such as strip mines). Another few hundred billions would suffice for reforestation and

protection of most of the remaining wetlands and wilderness areas in the world; it would also provide permanent protection as habitats for non-human species. Maintenance costs and waste treatment would cost no more than a few percent of the conventional GWP [Global World Product, E.N.] thereafter.” Ayres does not talk explicitly about the costs of combating global warming, but the same observation applies there as well. As the eminent economist Thomas C. Schelling (1997, p. 9) has observed: ‘Slowing global warming is a political problem. The cost will be relatively low: a few trillion dollars over the next 30 or 40 years, out of an OECD gross product rising from \$15 trillion to \$30 trillion or \$40 trillion annually’. So, yes, to solve environmental problems is not very cheap, it will cost a couple of trillion dollars. But this does not mean that it is non-affordable or will put a brake on economic growth.

Ayres (1998a, p. 19) goes on in saying that even these relatively low cost for solving most, if not all, environmental problems ‘seems to be too much for most governments and business interests to accept readily’. In here lies the problem: Environmentalists need to fight hard in order to push through these costly policies that will save the environment. But the good and consoling message to workers, politicians and business people is that doing so would not render economic growth infeasible. In other words, we can have it all; we can have both increasing living standards via economic growth and a decent environment. In order to get a decent environment, we must want it and we must pay for it. Pushing this through will be far from easy, but it is possible and it is possible without any major detrimental effect on economic growth.

6. Sustained economic growth is feasible

The last point leads me to the second part of my hypothesis, which is that economic growth *per se* is not the solution to environmental problems. Before going into somewhat more detail about this point, however, I would like to refute a myth, which many environmentalists subscribe to. This myth is that sustained economic growth is infeasible beyond the short run as the world will run out of resources needed for the production of goods and services. It goes back to the first Club of Rome report (Meadows et al. 1972), but of course has its roots in 19th century authors such as Malthus (1798) and Jevons (1865).

What these and all following resource pessimists have ignored are three things: First, they vastly underestimated the scope for exploring and finding new reserves and the powerful possibilities for substituting one resource for another. Resource pessimists in their recurrent doomsaying about the world running out of resources are incredibly unimaginative about how human ingenuity can overcome any apparent resource constraint. Like religious doomsayers they are not very impressed by the frequent falsification of their doomsaying, however. Second, energy is the one and only real limiting factor in the long run, because given enough energy there will always be enough natural non-energy resources extractable from the crust of the earth. Third, the earth is blessed with a clean, renewable and quasi-infinite solar energy influx that exceeds current world energy demand by about three orders of magnitude. Yes, the world economy is currently dependent on fossil fuels, but this dependency will subside if and once a switch to an economy based on solar energy and other renewable energy resources became necessary if we ever happened to run out of fossil energy fuels (which in itself is doubtful, see Neumayer (1999)) or, and

much more likely, if because of global warming we decided to artificially restrict the consumption of fossil fuels.

Many environmentalists neglect that the earth is an open system that receives this quasi-infinite energy influx from the sun. The (in)famous second law of thermodynamics (in a closed or isolated system entropy invariably increases over time) is therefore practically irrelevant for all intents and purposes of human beings (see Ayres 1998c). The second law of thermodynamics is a fact of course, but environmentalists' claim that it would inhibit economic growth is a fairy tale.

7. Economic growth is not the solution to environmental problems

Economic growth *per se* does not solve environmental problems. Indeed, if not accompanied by environmental policies economic growth might well lead to increased pollution, thus seemingly, but nevertheless wrongly, confirming many environmentalists' belief about the inherent dangers of economic growth for the environment. What solves environmental problems are strong environmental policies, full stop. What economic growth does is to create favourable conditions for strong environmental policies to be enacted (see the arguments made above). Environmentalists and environmental policy makers alike need to exploit the opportunities that economic growth grants them. If they fail to do so, economic growth might still accidentally be beneficial to the environment because of structural change and the instalment of later, and often less pollution-intensive, vintage capital. Some predict that future economic growth will be mainly knowledge, not resource, driven and will therefore be much cleaner *per se* (Romer 1997; Chichilnisky 1998). But without strong environmental policies enacted, the positive effects of structural

change and decreasing pollution intensity might very well be eaten up by absolute increases in pollution levels.

8. Conclusion

In order to win a fight, one needs to know who the enemy is. Environmental degradation is the enemy for environmentalists and environmentally concerned academics. We should concentrate on demanding strong environmental policies to solve these environmental problems. Bashing economic growth instead is like shooting a straw man: it might create a good feeling, but is completely inappropriate and ineffectual. We should move away from a misplaced focus on economic growth and concentrate on the real enemy.

Lest the reader gets me wrong, I should stress here that I am not overly optimistic about whether global environmental problems will be solved in the foreseeable future. Even though, as argued above, combating these problems is relatively cheap, for one reason or the other the relevant stakeholders in politics and the economy have so far refused to achieve solution. Partly this might be because they have too much listened to the well intended, but misguided horror stories of environmentalists who have scared them away from strong environmental policies with the terrifying, but unfounded, fairy tale that this would mean an end to economic growth. In doing so, environmentalists have achieved the opposite of what they intended.

It would be most unfortunate if we could not solve environmental problems without putting a brake on economic growth. Indeed, it would be terrible, as the prospects for solving environmental problems would become very bleak indeed given that economic growth is so highly desired for other reasons. Whether it could be achieved at all in such a case is far from clear, as anti-growth environmentalists have

so far failed to demonstrate how they want to achieve a halt on economic growth in a free and democratic market society. It is indeed highly doubtful whether abandoning economic growth, if it was a desirable goal, would be politically achievable. Fortunately, it is not a desirable goal.

Environmental protection is a desirable goal. Achieving it is relatively cheap as I have argued above. Should I turn out to be mistaken and solving environmental problems would turn out to dampen economic growth substantially, so be it. I am most concerned about environmental problems, not about economic growth. So let us leave the old and misguided debates about economic growth behind us and let us move away from this misguided focus on economic growth.

9. Epilogue

Let me finish on a rather personal note. I would like to stress that even though my paper's arguments go against most of the thoughts of the other contributors to this volume, I share their concern for the environment and I sympathise with their noble intentions. I merely think that often they are fighting the wrong battle. But that does not mean that I do not hold them in great esteem. To give but one example: I agree with little that my friend Herman Daly writes. And yet, I believe that this grand old man of ecological economics has made more students interested in ecological economics than anybody else. In this he has done an enormously outstanding job for our common cause and because of this there is hardly an academic on this earth whom I would adore more than him.

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