Media Review

Living planet report, 2006

by the **World Wildlife Fund**

(2006). Retrieved Oct. 31 from
http://assets.panda.org/downloads/living_planet_report.pdf

**Stern review: The economics of climate change
(Executive Summary).**

by **Nicholas Stern**

*London: H. M. Treasury,
Government of the United Kingdom, 2005.*
(2006) Retrieved Oct. 31, 2006 from
www.hm-treasury.gov.uk/media/8ac/f7/executive_summary.pdf

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Educating for a Sustainable Future: Indispensable Resources

It is hard not to become discouraged whenever an environmental “state of the planet” report is issued. Inevitably, we seem to be that much closer to an ill-defined but much-discussed “ecological tipping point” past which we are told there is no return. The obstacles to global ecological sustainability are particularly overwhelming in light of the triple ecological challenge: the attachment of consumers, especially in the developed countries, to their unsustainable and insatiable lifestyle; the relentless pursuit of corporate profit by companies that serve the consumer market; and the legitimate desire of the socially and economically marginalized populations of the developing countries for an equitable share of the world’s resources.

For educators this apparently bleak state of affairs presents a

problem of how to create in their students a globally-oriented awareness that confronts this inequitable and unsustainable situation in a way that

- avoids a doom-and-gloom scenario of the inevitability of the “tipping point”,
- addresses the legitimate claim that the residents of the developing world have to decent standards of living, and
- does not reduce the issue to approaches that, while worthwhile in and of themselves, have the effect of limiting student awareness of and actions around this issue to their responsibility to practice “the three Rs.”

Teaching *education for a sustainable future* requires educators to be ecologically literate. That, in turn, requires educators to be able not only to articulate the problems facing our planet but also to have a clear understanding of potential solutions that they can confidently share with their students.

Recently, two reports were released that together provide current data on the ecological challenges that we face and which also show that there are possible solutions to these issues. In mid-October the World Wildlife Foundation (WWF) issued its *Living Planet Report, 2006*. Days later the Government of the United Kingdom issued the *Stern Review: The Economics of Climate Change*, written by a team chaired by Sir Nicholas Stern, the former chief economist of the World Bank. Both reports deserve our attention, although the latter, at almost 600 pages is best read in the form of its 27-page Executive Summary.

The WWF report is written in language that most readers will feel comfortable with while the Stern report, although by no means inaccessible, is written in the language of economics. It is, however, precisely its economic orientation that makes Stern's *Economics of Climate Change* an important and compelling read for educators who seek to guide their students towards the realization that there are solutions to the state of the planet's ecology and that they, both as consumers and as active global citizens, have a role to play in bringing about those solutions.

The WWF *Living Planet Report, 2006* uses the metaphor of the ecological footprint as a starting point. The authors remind us that

if it is equitably shared the *biocapacity* of the world provides each inhabitant of this planet with 1.8 hectares to satisfy our needs. At that level of resource use, the earth can replenish what we take. If our individual consumption requires more of the earth's capacity than 1.8 hectares, then we are contributing to consuming more resources than the earth can supply. On average the earth's inhabitants are consuming in excess of that – 2.2 hectares – which puts the globe in a deficit situation. The average ecological footprint in some countries is well below 2.2 hectares, indeed well below 1.8, while others such as the four worst offenders (the United Arab Emirates, the U.S., Finland and Canada, in that order) consume in excess of 7 hectares per person. It should also be noted that the 1.8 hectares per capita is not a fixed number. There are only so many hectares of productive land and sea available on the planet. As the global population grows there is less productive area per capita available. Furthermore, if through global warming and other ecologically destructive phenomenon once productive areas become unproductive (farm land because of drought, for example, or the depletion of fish stocks), the amount of productive area is reduced.

The WWF *Report* notes that if we project present patterns into the future (what both the WWF and the *Stern Review* refer to as *the business as usual model*) the deficit between the regenerative capacity of the planet and what resources we use will only get worse. This is the case because not only will the world's population increase (thus reducing the number of hectares per capita available) but some of the countries in the developing world that now consume less than 1.8 hectares per capita (e.g., China and India) are following development models that will increase their footprint well over the 1.8 hectare threshold in ways that are ecologically destructive (e.g., the massive emission of greenhouse gases that will contribute to further global warming).

Fortunately, this doomsday scenario is not inevitable. The WWF *Report* argues that there are two alternatives to the unsustainable "business as usual" scenario. The first of these they call the *slow shift* to a sustainable balance which would, by 2100, bring the world average per capita ecological footprint down to 1.5 hectares from the present 2.2. This, of course, is still an average and may well

include wide inequities among countries as is presently the case. The second strategy is what the *Report* terms *rapid reduction*. This would accelerate the achievements of the *slow shift* approach and significant improvement toward sustainability would be achieved much earlier, by 2050, and a 40% decrease in humanity's biological footprint would be achieved by 2100.

The problem with these scenarios is that the WWF offers no strategy to achieve them. We can all agree that the globe cannot sustain the pattern of growth we are presently experiencing but given the factors that drive our models of unsustainable development, what are the incentives to achieve both ecological sustainability and a more equitable fulfillment of basic human needs?

An answer to this complex question is suggested in the *Stern Review*. The WWF *Report* takes the ecological footprint as its starting point. The *Stern Review* takes climate change caused by our ever-increasing consumption of fossil fuels as its starting point. These two concepts – the ecological footprint and climate change – are closely linked.

The *Stern Review* makes the very pragmatic argument that the economic costs of doing nothing and ignoring the human-made causes of global warming are greater than investing in measures that would reduce the greenhouse gas emissions caused by burning fossil fuels. Said another way, and using language that corporations and the governments that support them understand, Stern argues that, "The evidence shows that ignoring climate change will eventually damage economic growth" (p. ii). As compelling as arguments about the plight of the polar bear on diminishing ice floes may be for environmental activists, for corporate and government leaders a more convincing argument is that one of the consequences of global warming will be a 20% drop in global consumption (Stern, p. x), something that would be catastrophic both in human terms (Stern notes that the worst hit would be the vulnerable less developed countries [p. vii]) and from the point of view of the corporate bottom line. How is the consumption of consumer goods, including basic food, shelter, and clothing that sustains the poor, related to global warming and why should corporations see it as being in their interest to change those practices that contribute to it?

Stern argues, as convincingly as any environmental activist

would, that global warming would have devastating effects. He notes the negative effects on the oceans, on rainfall, and on temperatures:

- With respect to the oceans (p. vi), not only does global warming threaten fish stocks and the human economic activities related to it, but it will lead to a rising of ocean levels which will result in the partial or total destruction of coastal cities and the loss of agricultural land which would result in mass starvation and the dislocation of millions of coastal residents. The fate of New Orleans and its residents is fresh in our memories. We can only imagine what would have happened if that city had been located in Bangladesh, which would have no resources to cope with the aftermath.

- Changes in rainfall (p. vii) would affect available supplies of fresh water for human consumption and for agriculture. This, too, would result in dislocation and starvation, particularly in the already poor and vulnerable countries of the global South and also for the wheat belt in North America.

- Temperatures in Europe (p. viii), which has suffered extraordinary heat waves in recent years, will continue to rise with global warming. The impact on present tropical climates should temperatures rise even a few degrees would be catastrophic.

These are only three of the many impacts noted in *The Stern Review*. Under such circumstances it is little wonder that Stern and his team of economists predict that incomes would fall and, especially in the global south, consumption would decline. It is not unrealistic to predict that political unrest would erupt, leading to many humanitarian disasters like the one in Rwanda a decade ago or in Darfur today. In addition, there would be an escalation of militarization, as nations with fresh water or productive agricultural land would feel threatened by their desperate neighbours.

While the WWF presents concerns such as these in the framework of a humanitarian call to action, albeit a self-interested one as we all share in the fate of the planet, *The Stern Review* presents concerns in terms that speak to corporate and political self-interest. Furthermore, the solutions Stern proposes are made in terms that corporations and politicians understand: investment in new technologies and production techniques, risk reduction, political (e.g., market) stability; and potential for long run growth. Given the fact that

governments, including Canada, China, Russia, and the U.S.A., feel they can ignore Kyoto with impunity, clearly the environmental movement does not have the clout needed to insure that even democratic nations are doing the minimum required to reverse the rush to ecological disaster. Sometimes breakthroughs come from unexpected quarters. Faced with the predictable loss of their markets and with solutions including such tools as *carbon taxes* to punish offenders and reward innovation, the Stern recommendations, couched in business terms but oriented to ecological sanity, may be a huge step in the right direction.

And how does the educator link these apparently corporate- and government-driven decisions about investments and alternative energy sources into potential civic involvement by student-citizens? Corporations will not do these things on their own nor will the people nor the governments in developing countries unless they are given guarantees that ecologically sound policies will allow for growth and a rise in their standard of living. As Stern puts it “an effective response to climate change will depend on creating the conditions for international collective action” (p. xxii). Competition requires a level playing field. In today’s world that level playing field has to be global. Only when all concerned, whether they be governments or private transnational corporations, are simultaneously encouraged by incentives and obliged by national and international law to behave in certain ways will they make any significant move that contributes towards reversing present destructive ecological trends and take steps to reduce the ecological footprint of the residents of the developed countries while creating the conditions to meet the legitimate material needs of the world’s poor.

Stern, as a former senior official of the World Bank, knows full well the complexities of world politics and the power relations upon which they rest. When he calls for urgent and concerted international action, he is fully aware of the political and corporate resistances. He is also knows what can galvanize these stakeholders into action. Corporations require a guarantee that new ecologically sound initiatives must be undertaken by all because the first to do so will be at a competitive disadvantage due to higher costs. This is where governments and international agencies such as the United Nations are

important. Stern provides a strategy which meets human needs, protects corporations' need to survive, and addresses the state of the world's environment. An informed citizenry in the countries that comprise the top 30 worst offenders to our global environment as measured by the size of their ecological footprint (WWF, p. 14) has a key role to play in convincing their governments to begin to create the conditions whereby these steps to ecological survival are taken. Educators can be important in making this happen.