

Submission to the House of Representatives Standing Committee on Environment and Heritage Inquiry into a Sustainability Charter

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Question: Should a sustainability charter consist of aspirational statements, set targets (such as measurable water quality) or both?

In my view a sustainability charter should include both statements of overall objectives (aspirations) and targets by which to measure progress towards those objectives. Without targets, objectives have no precise meaning, no urgency and no means of knowing they have been attained. For example, Sweden's environmental objectives, listed in the Committee's Discussion Paper, all have multiple measurable targets. However, I want to make four comments about the aspirations in a sustainability charter.

The first is that the five areas emphasised in the Terms of Reference (built environment, water, energy, transport, and ecological footprint) cover only a small portion of Australia's sustainability issues. This is apparent from a reading of the issues covered in the national State of the Environment reports, or a comparison with the sustainability objectives of Sweden or Western Australia. Missing from the five areas are marine environments, biodiversity, forests, mining and non-renewable resources, agricultural environments, and the atmosphere (local and global). These environments provide the resources on which the regional economies of Australia depend, and contain some of our most serious environmental problems. A Sustainability Charter must be comprehensive, and must cover the full range of sustainability issues in this country.

A second comment on aspirational statements and targets is to suggest that a focus on elements such as water, energy and transport could be dangerous, because it could lead to these elements being addressed in isolation from the ecosystems or human systems of which they are a part. Note that the Swedish environmental objectives mostly focus on types of environments (ecosystems). Environments cannot be managed effectively one element at a time, but require an integrated and holistic approach, as exemplified in the recent adoption of integrated natural resource management concepts across Australia. I therefore believe that the Swedish approach, of specifying objectives by environments and then establishing multiple methods of measuring progress, is preferable to a focus on individual elements of the environment.

My third comment is that I do not think that the ecological footprint is an appropriate part of a sustainability charter. While it may be useful in providing a single measure of our total use of the environment, it is not a measure of sustainability because it takes no account of whether, for example, the area of land that is the source of our food is farmed sustainably or unsustainably.

The fourth comment is that aspirations should be accompanied by a clear explanation of what sustainability means, and why it is important to Australians. Without such a foundation, aspirational statements become assertions that are easy for some to reject. This would be the role of a preamble to a sustainability charter. An approach that is now quite common starts with the observation that the environment performs three functions in supporting human life and economic activity. The first is the production of raw materials from the natural resources of soil, water, forests, minerals and marine life (the earth's 'source' function). The second is the safe absorption (through breakdown, recycling or storage) of the wastes and pollution produced by production and human life (the earth's 'sink' function). The third is the provision of the environmental services that support life without requiring human action, such as climatic stability, biodiversity, ecosystem integrity, protection from ultraviolet radiation, and the recreational, psychological, aesthetic, cultural and spiritual values of environments, including areas of natural beauty or wilderness (the earth's 'service' function). (Ekins 2000, pp 53-54; Jacobs 1991, pp 86-96)

Sustainability is then defined as the maintenance of essential environmental functions. The best statement that I have found so far that turns these functions into sustainability principles is by the economist Paul Ekins. His principles are reproduced in shortened form below:

1. Destabilisation of global environmental features such as climate patterns or the ozone layer must be prevented.
2. Important ecosystems and ecological features must be absolutely protected to maintain biological diversity. Importance in this context comes from a recognition not only of the perhaps as yet unappreciated use value of individual species, but also of the fact that biodiversity underpins the productivity and resilience of ecosystems.
3. The renewal of renewable resources must be fostered through the maintenance of soil fertility, hydrobiological cycles and necessary vegetative cover and the rigorous enforcement of sustainable harvesting.
4. Depletion of non-renewable resources should seek to balance the maintenance of a minimum life-expectancy of the resource with the development of substitutes for it. ... To help finance research for alternatives and the eventual transition to renewable substitutes, all depletion of non-renewable resources should entail a contribution to a capital fund.
5. Emissions into air, soil and water must not exceed their critical load, that is the capability of the receiving media to disperse, absorb, neutralise and recycle them, nor may they lead to concentrations of toxins that cause unacceptable damage to human health.
6. Landscapes of special human or ecological significance, because of their rarity, aesthetic quality or cultural or spiritual associations, should be preserved.
7. Risks of life-damaging events from human activity must be kept at very low levels. Technologies which threaten long-lasting ecosystem damage should be forgone.

Of these seven sustainability principles, 3, 4 and, to some extent, 2 seek to sustain resource functions. Five seeks to sustain waste-absorption functions; 1 and 2 seek to sustain life-supporting environmental services; 6 is concerned with other environmental

services of special human value; and 7 acknowledges the great uncertainties associated with environmental change and the threshold effects and irreversibilities mentioned above.

(Ekins 2000, pp 95-97)

These are very similar to the much shorter five principles in Sweden's Environmental Objectives.

I would add one further sustainability principle to Ekin's list. This is the principle of trans-frontier responsibility, which means that sustainability in one region or country cannot be achieved at the expense of environmental conditions elsewhere. A region or country cannot export its environmental impact, such as saline water from irrigation, polluted urban storm water, land degradation from logging, or atmospheric and water pollution from industrial production, and claim to be environmentally sustainable. Dresner (2002, p 84) illustrates this principle with the example of an unnamed country:

Consider an attempt to draw up national accounts for natural capital (this has actually been done in some countries). Suppose that the country in question is rich, even though it has few natural resources of its own, and the country is noted for its high environmental standards. The nation's natural capital accounts show that its forests are growing, its rivers are clean and there are few primary extractive industries to deplete its non-renewable resources. But there is another side not revealed in the country's natural capital accounts. It is the world's largest consumer of rainforest timber, the world's largest importer of oil, and its corporations' factories abroad are notorious for their lax environmental standards. Critics accuse the country of 'exporting unsustainability'. The point is that sustainability is global. There can be no such thing as 'sustainability in one country'.

The value of the principles outlined above is that they lead to explanations of why each sustainability principle is important, and these explanations are very much about the economic, physical and mental wellbeing of the present generations. Arguments for sustainability can be based on ethics, such as responsibility for future generations or people in less developed countries, or on conservation of the environment for its own sake, or on respect for other life forms, or on self-interest—such as to preserve a productive economy, or a healthy environment for humans. I believe that arguments for sustainability based on economic and health considerations are far more likely to gain support, especially from the business sector, than arguments based on environmental considerations. A Sustainability Charter therefore needs to specifically address the economic issues that lead many Australians to oppose any serious measures to improve environmental sustainability. It must demonstrate that environmental sustainability is not only necessary for the survival of our present economy, but can produce new sources of employment and incomes.

Question: Is it possible to measure cultural and social values in relation to a Sustainability Charter?

It is possible, but I argue not desirable, to include cultural and social objectives in a Sustainability Charter. The danger of adding cultural and social objectives is that the more objectives in a charter, the harder it is to gain support for it. I therefore think it

is a mistake to insist that environmental sustainability must also incorporate a strategy for economic and social sustainability, as some Australian non-government organisations would like. However, to be acceptable politically to Commonwealth, State and Territory governments, and to the majority of Australians, a sustainability program must not lead to a net loss of employment and incomes, and any burdens must be equitably shared. Consequently, programs for environmental sustainability have to take account of economic and social issues if they are to be acceptable and effective, but this is not the same thing as saying that environmental sustainability programs must also be programs for social and economic sustainability.

Question: How do we encourage an increase in renewable energy use?

I interpret this question more broadly to encompass ways of encouraging all forms of more environmentally sustainable behaviour. The standard ways are legislation, regulation and education, but these have been shown to have their limits.

Governments could also promote the use of Environmental Management Systems by private and public sector organisations as a way of improving environmental performance, provided that these incorporate sustainability goals, which is rarely the case. There could also be wider use of Strategic Environmental Assessments of Government policies, to identify problem areas. The Committee could particularly look at the use of ecological taxes to provide incentives and disincentives to shift behaviour towards more sustainable patterns, but without raising the overall tax burden. This would involve removing the present tax concessions and subsidies that, for example, encourage capital- and energy- intensive production. Sweden is a good example of ecological taxes, although the OECD believes that the environmental taxes in that country are still too low to cover the costs of environmental degradation or to significantly affect behaviour (OECD 2004, p. 47).

However, because much environmental degradation in Australia is a result of economic activities, any progress towards sustainability will involve changing the way these economic activities operate. This requires a holistic approach to redesigning a firm's operations rather than a separate focus on energy or water use, and addressing the causes of environmental problems rather than the symptoms. Examples of this strategy are:

- Changing land use systems so that they more closely replicate the way the pre-farming ecosystem functioned. For examples see Williams and Saunders 2003, but considerable research is still needed to develop economically viable alternative land use systems.
- Redesigning manufacturing and service industries along the principles of eco-efficiency.

Another strategy is to assist the establishment of new or alternative economic activities that will reduce environmental impacts while creating employment and incomes. Examples of this strategy are:

- Developing ecotourism projects which generate funds for environmental rehabilitation.

- Establishing regional energy production based on renewable sources, which will create regional income and reduce regional income leakage. The Swedish Government's LIP and KLIMP programs are an interesting example of how government can assist this aim.
- Using biodiversity commercially but sustainably to generate incentives and funds for its conservation, as well as employment and incomes. See Archer and Beale 2004 for examples.
- Paying land managers for the provision of ecosystem services, such as carbon sequestration services, preservation of biodiversity and habitat, fresh water, and maintenance of scenic and recreation areas.
- Using a local ecocycle or eco-industrial approach to reduce waste emissions and create jobs and investment. See *Ecos*, no. 129, Feb-Mar 2006 for examples.
- Developing remanufacturing industries. An example is the disassembly and recycling of consumer goods such computers, refrigerators, washing machines and air conditioners.
- Establishing an urban redevelopment industry, retrofitting existing urban buildings and infrastructure to reduce water and energy consumption. This requires research into innovative ways of financing the industry.
- Localising regional economies to reduce transport use and at the same time increase local employment, such as through support for local buyer-supplier chains, local processing, and local food production.

The point of this strategy is to progress towards sustainability by creating employment and incomes in activities that will reduce environmental pressures, and make up for any losses in employment and incomes in economic activities that may need to be reduced or phased out. This is a major way of trying to ensure that there will not be a net cost to the economy from improved sustainability, and therefore of reducing opposition to a sustainability program.

Finally, if the Committee is really concerned about how Australia can become more environmentally sustainable, it might also like to consider some of the suggestions in Porritt (2005) about what is needed to make capitalism less environmentally (and socially) destructive. The pursuit of short-term financial gain that does not have to take account of the environmental and social costs is incompatible with long-term sustainability.

References

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