

## **THE SUSTAINABILITY OF WILDERNESS**

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On the surface, the questions addressed in this forum seem simple. Given growth in human populations, (a) can we still “afford” wilderness; or (b) should we aim to use it “sustainably”? The straight answers are (a) yes, and (b) no. But as my quotation marks indicate, the terminology is misleading.

To afford something means to have enough money to buy it. So who’s buying, what do they want, and who’s selling? The total cash cost to buy all the world’s remaining areas of high biological diversity at current local land-sale prices is estimated at \$20 billion per year for 10 years. This is less than annual US expenditure on soft drinks. So yes, the world can afford it. Most wilderness, however, is not for sale except politically. It is controlled by national governments; which either protect it, exploit it or ignore it depending on their own economic and political power bases. Ecuador, for example, despite a \$30 billion lawsuit over damage by the oil industry in one national park, now wants to produce oil from another park unless it gets a multi-billion-dollar international buy-off. Since it wants the money up front with no strings, there is no actual guarantee of future protection.

A much more important question is whether we can afford the continuing loss of wilderness worldwide. We rely on relatively undisturbed natural ecosystems to clean the dirty air and water which emanate endlessly from our cities. If the air in a city were not constantly replenished by winds bringing clean air from the wilderness, the people living there would die just as surely as those locked in a garage breathing car exhaust fumes. If urban rivers did not flow into the ocean and fall as rain into water catchments upstream, the people in those cities would be poisoned by a mixture of industrial effluents and human waste.

Wilderness areas, especially oceans and tropical grasslands and forests, also help to absorb atmospheric carbon to mitigate human-induced climate change. The only realistic way to get carbon out of the atmosphere is to put it back in the soil. “Biochar” is one attempt to do this artificially, but it’s a lot cheaper and more

effective just to keep these areas under native vegetation and let the plants maintain soil fertility. Permaculture farming can have the same effect, but we aren't likely to produce the world's food supply through permaculture any time soon. Current farming and forestry practices in most of the world typically reduce soil organic matter content, taking carbon out of the soil and into the air. So wilderness mitigates climate change impacts from human activities elsewhere.

It is also wilderness areas worldwide which provide the genetic diversity which underpins our food, textile and pharmaceutical industries. It is plants and animals which provide the specific chemicals which we use to produce almost all our drugs and medicines. Wild plant and animal species also provide the genetic material which allows us to keep breeding new varieties of staple food crops and livestock, as older varieties continually succumb to new pests and diseases. This is why pharmaceutical and agricultural companies pay so much for "bioprospecting" rights, the opportunity to screen wilderness areas for potentially valuable species.

Ten years ago a group of economists calculated that the recurrent financial value of goods and services which human societies derive from the natural environment is at least twice as large as the entire global economy: many tens of trillions of dollars every year. Most of this is what they call "ecosystem services" – clean air and water, genetic materials and so on – and most of this relies largely on wilderness. So wilderness is something we definitely can't afford to lose.

Given that we can afford to keep wilderness and can't afford to lose it, is it perhaps possible to use it "sustainably"? This is also misleading terminology, for two reasons. Firstly, we do already use wilderness, all the time, to keep the planet habitable for humans. Every breath you take and every drop you drink uses wilderness.

Secondly, the concept of sustainability, which is vague at best and most often used as a soft excuse to avoid the hard realities of environmental science, is completely dependent on scale. At a global scale, there are large areas where the human economy consumes the natural environment: towns and cities, mines and manufacturing plants, logging areas and most croplands. Since humans as biological creatures are completely dependent on the natural environment, they can only

continue to survive as long as there are also areas where that environment is not being consumed: i.e., wilderness.

At a local scale, it is indeed possible for small numbers of humans with low material demands to live in slightly-modified natural environments which provide economic services and environmental services at the same time. This is the basis for subsistence economies. As long as we have a large industrialised human population which lives in cities and eats food from intensive agricultural production, however, we cannot also occupy the wilderness areas at the same time. In long-ago millennia, there were few humans and they all lived subsistence lifestyles. Currently, although a few people do still live subsistence lifestyles, there are very many people in total and most of them live industrial lifestyles. Under these circumstances, wilderness must be kept as wilderness for the world as a whole to remain “sustainable” in the sense of providing a place where humans can continue to live for the foreseeable future. It really is that simple.

Typically, there are four different groups of people who want to use wilderness for purposes other than planetary life support. Wilderness which is not within protected areas suffers continual attrition and degradation from high-impact human uses - ranging from agricultural clearance and industrial forestry and fisheries, to mining and oil production. The global logging industry, in particular, still relies largely on continuing encroachment into new areas of previously uncut old-growth forest. These uses are a core component of the way the world economy currently operates. They are endorsed, encouraged and often subsidised by national governments, through arrangements ranging from land tenure to publicly-funded infrastructure. That is, they are seen as normal; they are business as usual. Nonetheless, they continually reduce the world’s remaining supply of wilderness, on which we all depend for survival. The area within national parks is not enough on its own.

Even within protected areas, wilderness is still subject to some attrition, though at a lower rate. In many developing nations, parks are protected on paper but not on the ground, and are subject to continuing illegal incursions. In both developed and developing nations, the oil and mining industries lobby continually for the rights to operate inside parks, pretending that this will not destroy their value for conservation

and wilderness. For demonstration purposes, it is indeed possible to drill a shallow skinny hole with limited impact. The real-world oil and mining industries, however, create massive impacts through networks of roads and seismic lines, discharge of toxic mine tailings or drilling compounds, and the influx of people, trucks, helicopters and heavy equipment. They can't help it, because that's how the industry works. It relies on contractors and subcontractors and sub-subcontractors, and no matter what the top-level policy may say, when the dozer hits the dirt it's about deadlines and cost control. That's fine in a mine, but not in a wilderness.

At the opposite end of the scale, national parks in most countries are routinely used for recreation as well as conservation. This does produce impacts, but they are relatively minor and manageable. It has become part of the politics of modern day wilderness conservation that parks agencies must continually work to maintain political constituencies and operational funds. Opening the parks for independent recreation is one of the key approaches they use. People hiking in parks for individual recreation are manageable, and it saves on public health, hospital and aged-care costs too. Really. "Healthy Parks Healthy People", the slogan of Parks Victoria, is not just a marketing tag. It's part of the State budget.

Midway between the mining industry and the individual hiker lies the commercial tourism industry. National parks, and especially World Heritage Areas and similar icon sites, are major drawcards for both domestic and international tourists. Three quarters of all overseas visitors to Australia, for example, visit at least one national park during their stay. The commercial tourism industry gains by selling these tourists their transport, accommodation and some activities. In fact, at least a quarter of the entire Australian tourism industry bases its businesses principally in natural areas, though this includes private as well as public lands.

In most of the world, tourist accommodation and commercial tourism hubs are in gateway areas outside the parks themselves, and all activities inside protected areas are controlled by the park management agency. This works well, since parks agencies can manage visitors to minimise impacts on conservation. It works well for the tourism accommodation and retail sectors too, since these are closely tied into the broader residential property sector, which is driven more by amenity migration –

people moving to live somewhere they enjoy - than by short-term holiday-making. This approach works well even in very heavily-visited parks, such as those in China which receive tens of millions of visitors each year.

There are indeed private landholdings, especially in sub-Saharan Africa and southern America, which are run as reserves funded by tourism, mainly wildlife tourism. In these cases, tourism accommodation is commonly built inside the reserve. But that is a very different situation from public protected areas. The landholders are running businesses using their own assets. They are not necessarily trying to contribute to global conservation, which is the goal of public protected areas. In addition, in private reserves the revenue from tourism has to cover all the costs of land and conservation management for the entire property, as well as all the tourism infrastructure and international marketing. In public parks, these costs are paid by the country's taxpayers. It's a very different game.

Not surprisingly, the commercial property development sector sees publicly-owned parks and wilderness areas as a plum prize, an opportunity to profit at the public expense. If property developers can build tourist accommodation inside a well-known public park, then the attraction, the infrastructure, the operational management costs, and the marketing are all publicly subsidised. If in addition, a tourism developer can negotiate an exclusive right to provide accommodation and retail services in a particular park, then that operator also gains a monopoly rent, the opportunity to raise prices and reduce services because there are no competitors. Whilst this generates profits for that particular property developer, it imposes inequitable costs on the parks agency, on less wealthy independent visitors, on other tourism providers and regional industry, and on the wilderness areas which support the entire human race. So it is neither affordable nor sustainable.

The term which the tourism industry uses to push this approach is "partnership." This is another of those misleading terms. Tour operators want to use parks resources, even to have a say in park management practices. They would not, of course, be so keen for parks agencies to use their company resources, or to give parks staff a say in managing their businesses. So it's not really a partnership in any real business sense. Tourism property developers argue that they can make money for parks. But where

tour operators have to pay parks fees already, e.g. per-person entry fees, they complain bitterly. Very very few tour operators make donations to the parks which they use, and even fewer of those are in Australia. We can't expect this to change.

There are several parks agencies around the world that do indeed raise most of their operating funds from tourists. For South Africa it's about two thirds, and for Quebec in Canada it's about four fifths. But they do it directly, by charging fees to individuals. They do have commercial deals with tour operators too, but these make up only about one twentieth of total turnover, and those deals may not even cover costs. There are privately run hotels in some US National Parks, but they were built in pioneer days and have presented problems ever since. There are campgrounds run by concessionaires, but under strict parks rules. The idea that a hotel inside a park instead of outside will somehow contribute to conservation is not supported by evidence. It's just lobbying. And people actually don't want hotels in parks. They want to be able to go to parks cheaply, and camp. When Parks Victoria wanted to build a hotel in Wilson's Promontory National Park some years ago, there were more objections than for any previous development proposal in the State. People want wilderness the way it is.

Finally, the questions for this forum include one more dangerous assumption, namely that of continuing population growth. In fact, unless global human populations soon stabilise and shrink, all other conservation measures will ultimately prove useless. In one way or another, every year humans consume several times more than the planet can produce. This is possible in the short term because we are consuming the accumulated natural resources of Earth's entire history. To use a financial analysis, we are mortgaging the farm or partying with our trust funds, with no way out once current cash is gone. Everything we can do to protect the environment is just a stopgap until we can reduce human populations. Yet at present, human populations worldwide continue to grow, and as countries such as China and India become more wealthy, *per capita* resource consumption increases too. Meanwhile, governments such as our own are worried only about losing their tax base as workers retire. Our current federal government wants to increase immigration so as to boost Australia's population to almost double its current level. How anyone can be quite so blinkered is surely a mystery. And not one that holds much hope for a happy ending.

So the bottom line – and it really is a triple bottom line, social and economic as well as environmental – is an old truism from the pioneer days: “In wilderness is the hope for the world”.

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