

On taxing wildlife films and exposure to nature

SVEN WUNDER and DOUGLAS SHEIL

Abstract Some conservation finance strategies feature taxes on nature's benign, and arguably educational, uses. This applies to a recent proposal to extract payment from producers of nature films and also to past efforts to raise entrance fees to protected areas. We argue that, as they are currently formulated, it is misleading to label these proposals as payments for environmental service schemes, as they lack voluntary and conditional payments. Rather, they are a form of taxation. Such revenue-seeking measures may prove to be short-sighted. They will raise prices and curtail the demand for those environmental services that embody some element of education, thus reducing public exposure to nature. This could diminish public awareness, curb people's biophilia and devalue Nature's 'existence values'. This drive for more conservation cash income in the short term could undermine a broad, long-term societal basis for conservation and its future financing.

Keywords Biophilia, conservation attitudes, films, payments for environmental services, PES

Given the widely acknowledged shortfall in funds for conservation, innovative thinking for global conservation finance is required (Bruner et al., 2004; Strassburg et al., 2009). But are novel ideas always well-grounded in a good understanding of their implications? What, for example, are the consequences for incentives for conservation and for users of biodiversity?

Jepson et al. (2011) recently suggested that nature-based entertainment media should pay more for their use of biodiversity. This, they allege, would constitute a new form of payments for environmental services (PES). Although some voluntary contributions by film makers already exist, they argue that the media industry is effectively free-riding on nature conservation. In their view a global certification system should be designed, enforcing a share of the final output value of the certified industry (such as DVDs sold,

films broadcast on television) to be deposited into a conservation fund: 'A broadcaster would deposit a payment per viewer and per DVD or download sold into a common property asset trust. ... [which] creates the vehicle for the PES market by connecting media revenues with the cost of conserving landscapes and species.' (Jepson et al., 2011). They claim that this fund could offer new financial resources for the protection of nature. They acknowledge that these ideas are likely to be controversial and invite discussion. Here we accept the invitation by Jepson et al. by scrutinizing their suggestions and, going beyond the specifics of their article, we examine to what extent such financing ideas are conducive to achieving broader conservation goals.

Firstly, we offer a conceptual clarification of Jepson et al.'s approach. As discussed in the January 2012 issue of this journal (Wunder, 2012) PES systems are voluntary resource transfers from service users to service providers to conditionally improve service delivery. A key requirement here is a conditional relationship: if the defined service declines, or agreed rules are violated, payments are reduced or stopped. It is this direct linking of payment and incentive that is designed to bring efficiency to bear on complex environmental problems. The call by Jepson et al. (2011) for a 'PES logic' in their nature broadcasting proposal lacks such conditionality and is thus mislabelled: the money would go into a fund, and seemingly nobody on the ground would be conditionally paid to change behaviour vis-à-vis the uses of natural resources (Ferraro & Kiss, 2002). Also, under their proposed scheme payments would be obligatory, whereas in a genuine PES scheme they are voluntary. Yet, demanding that users pay into a fund managed by a centralized authority is also a familiar approach: it is a tax. Their proposal thus constitutes not a PES scheme but a tax on nature films. For comparison, PES systems aim to induce improved conservation outcomes by combining the payment and subsidy sides of the equation (Engel et al., 2008). Specifically, for Jepson et al.'s proposal to become a PES scheme, film makers' payments would have to be voluntary and made on condition that the environmental service they are receiving is safeguarded or improved. This constitutes a difference in conservation approach that goes well beyond semantics.

Secondly, Jepson et al. question the value of nature films in forming pro-conservation sentiments among viewers. This is based on what we see as a selective reading of the literature. In contrast, we believe a tax on nature films would undermine pro-conservation knowledge and support. Under normal economic circumstances levying a tax on a

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product or a service increases its overall price, and thus reduces demand. The same would almost certainly happen for charging an additional levy on nature broadcasting, to the extent that such incremental costs are passed to the consumer. Yet, exposure and knowledge are vital for encouraging people to care about nature. People with less exposure to nature know little and care less, whether adults (Zaradic et al., 2009) or children (Kong et al., 1999). Although the relative effectiveness of much conservation education remains unmeasured (Brooks et al., 2009), we believe few would seriously question the wider benefits. Given that conservation is based on societal demand and acceptance, any reduction in such exposure to nature could undermine support for conservation.

The importance of documentaries in informing the public has long been seen as instrumental to conservation attitudes. Examples include, inter alia, the marine programmes by Cousteau and the BBC documentaries fronted by David Attenborough (Fortner & Lyon, 1985; Pearson et al., 2011). Preferences for conservation are created within cultural contexts: what we see and learn on television from our early childhood shapes this context. Such indirect exposure becomes all the more important as societies become more urbanized, alienating people from direct contact with nature (Pyle, 2003; Miller, 2005). This growing disconnect threatens to diminish biophilia, the love humans feel for other species (Wilson, 1984). Suitable education and exposure are central to combating this trend: we must find and support efforts that engage society and encourage an informed appreciation and understanding of nature (Novacek, 2008). Broadcasting nature documentaries into people's homes is likely to be one of the most effective ways to address a mass audience and counteract the loss of biophilia. The US premier of the nature-centred series Planet Earth attracted a viewing audience of 12 million viewers and it projected a strong message of appreciation and care for biodiversity (Novacek, 2008). The wider and more accessible the knowledge of nature brought by television, film and other media, the better.

A practical example may help illustrate this point. As one of us (DS) experienced in Africa, television coverage of the mountain gorilla *Gorilla beringei beringei* has provided considerable free advertising for nature tourism focused on gorillas and is improving local park incomes, co-funding Uganda's protected areas. Uganda's tourist industry brings in nearly 10% of national GDP and seeing mountain gorillas is one of the highlights. Formalized gorilla-viewing tourism did not even exist c. 2 decades ago in Uganda but now, thanks in large part to television, tourists will pay USD 500 to see these animals for just 1 hour. According to figures from Uganda's Ministry of Trade and Tourism, tourism revenue was USD 350, 450 and 600 million in 2006, 2007 and 2008, respectively, and currently gorilla-viewing permits alone bring in USD 7–8 million per year

(Ministry Staff pers. comm. to DS, 2012). Thanks to the power of images, mountain gorillas have been put on the global map of nature's great so-called do-it-before-you-die experiences. Thus far from being viewed as parasitic on conservation, television documentaries can, and often do, promote it.

Taxing broadcasting, an important source of nature's popularity, would thus probably reduce public exposure and conservation support, and prove counterproductive to broadening the conservation mandate. In economic terms PES schemes rely on the existence of externalities that need to be rewarded to be taken into account. Nature broadcasting creates a positive externality by raising society's environmental awareness. This nurtures the so-called existence values (people treasuring nature they will never see or use in situ), which drive a lot of the private donations being given to environmental NGOs. Eroding this educational externality through film taxes would be counterproductive. Simple economic logic thus tells us that we should have as many nature films as is economically feasible and, rather than taxing them, we should probably subsidize them, especially those directed at children or those living in countries hosting these biological riches. Conversely, if we make nature films expensive to make, sell and watch, they will increasingly be confined to paid-for television channels where, at the extreme, only a pro-conservation elite can afford to enjoy them. As Jepson et al. imply, there is presently little proof of these values, and trade-offs and long-term impacts are hard to assess. Hence, more evidence is needed to understand better their importance for conservation attitudes.

The film-tax idea is not an isolated example of arguably short-sighted financing logic among conservationists. Various similar mechanisms to generate cash at the expense of structurally important conservation pillars have been tried. A closely related debate is how much to raise entrance fees to protected areas, to boost finances (e.g. Drumm & Moore, 2005). This can make sense to achieve vital cost recovery, or even to deliberately limit the number of visitors where there are detrimental impacts of visitation. Differentiated fees can mirror visitors' variable willingness to pay, and thus effectively raise revenues by cutting into the surplus money of wealthy consumers. However, an often overlooked trade-off in tourism planning is the risk of reducing the public exposure to nature; the downside here is limiting the number and type of people who have access. This is especially relevant to young people with low ability to pay. As one of us (SW) experienced in a case study in Brazil, the urban backpacker community was particularly affected by raising the cost of access to a precious natural site, and yet this group is likely to form an important future conservation constituency (Wunder, 2003). In general, we know how important young people, including schoolchildren, are for shaping society's

environmental values (e.g. Evans et al., 1996). Their exposure to nature, despite their inability to pay for it, needs to be built, not curbed.

A third critical aspect, in our opinion, refers to the overestimated enforceability and underestimated transaction costs of Jepson et al.'s proposed broadcasting certification arrangements. Taxing bioprospecting for pharmaceuticals—the search for valuable cures and medicinal compounds among the riches of tropical biodiversity, which was once heralded as a major opportunity to pay for global conservation—is another conservation financing hope gone sour on such practical details (Firn, 2003; Simpson & Sedjo, 2004). Taxes on nature broadcasting would probably fail for similar reasons: the manifold 'owners' of biodiversity and natural beauty would need to form a cartel to extract non-trivial access fees, as buyers can shop around for the lowest prices (Vogel, 2000). The transaction costs of running a global film certification body could easily devour the majority of the limited monetary funds available, in the end benefiting consultants and middlemen much more than conservation. Hence, enhancing existing voluntary contributions by nature broadcasting firms seems a wiser option.

In conclusion, we need to think carefully about Jepson et al.'s (2011) provocative question: 'should professional people, including scientists, pay for the ES [environmental services] they use?' Given the current state of knowledge, we believe that less emphasis should be placed on how to relieve nature's sustainable users of their last cents of surplus cash, and more stress placed on how we can spend limited conservation resources sensibly. In particular, in a world where democratic principles are increasingly emphasized, nurturing instead of taxing nature's educative use(r)s is a necessity for building the alliances needed to enjoy, support and promote conservation.

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