

## Wash and Spin Cycle Threats to Tropical Biodiversity

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‘The planting of oil palm trees has always been carried out legally and responsibly.’

—Yusof Basiron, Chief Executive Officer, Malaysian Palm Oil Council

‘Orangutans are predicted to become extinct by as early as 2011!’

—Rainforest Action Network

TROPICAL DEFORESTATION IS RAMPANT (Bradshaw *et al.* 2009), and is increasingly being driven by industrial-scale logging, mining, and agricultural expansion, in addition to the subsistence activities of rural communities (Butler & Laurance 2008). As consumers, we ourselves shoulder some of the blame in that we are often the market that these industrial enterprises seek to satisfy. Recognizing this, we must balance our consumer demands with our environmental concerns. To do so, we need to be critical of information presented to us by either environmental or industrial interest groups before making our consumer, investment, or policy decisions.

Both corporations and environmental organizations run sophisticated public relations campaigns, the credibility and objectivity of which are often difficult to verify. Corporations’ glossy brochures, slick websites, and cheerful videos serve to reassure consumers, undercut protests, and question the credibility of green activists (Munshi & Kurian 2005). When such promotional material has little basis in fact, or is at least disingenuous, companies are accused of ‘greenwashing’—a term coined by American environmentalist Jay Westerveld in 1986. We use the greenwashing term to define activities that misleadingly give the impression of environmentally sound management and which thereby deflect attention

away from the continued pursuit of environmentally destructive activities.

Yet environmental groups and activists sometimes make equally exaggerated claims in their campaigns—in effect engaging in environmental scaremongering and propaganda or what we term ‘blackwashing’—misleading and unverified accusations of avoidable environmental degradation by corporations. In the short term, blackwashing can focus attention, make headlines, raise the profile of environmental debates, and might ultimately increase donations to charitable concerns. In the longer term, blackwashing exposed for what it really is could diminish the trust invested in environmental groups and more generally undermine public support for conservation.

In light of the current global economic recession, which is likely to increase competition for dwindling conservation funds in the face of continued tropical deforestation and other forms of environmental degradation, there is increasing need for the general public to hold both corporations and environmental groups to account in terms of delivering credible, well-substantiated, and documented evidence. Here we argue that greenwashing by some corporations and blackwashing by some environmental activists could hinder conservation outcomes through the erosion of positive public perception and the creation of consumer apathy. We as scientists have a particular responsibility to evaluate critically and objectively the claims made by both parties, while being mindful of our own personal biases.

### GREENWASHING

Among the drivers of tropical deforestation, oil palm agriculture demands special attention because of the scale and rapidity of its expansion (Koh & Wilcove 2007, 2008, 2009). Understandably,

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environmental groups are increasingly concerned about the threat of oil palm to tropical forests and biodiversity; some have launched aggressive media campaigns that lobby for the boycott of oil palm products (Friends of the Earth Trust 2005, Center for Science in the Public Interest 2006, Greenpeace 2007). In response, the oil palm industry spearheaded by the Malaysian Palm Oil Council (MPOC; <http://www.mpoc.org.my>) has invested millions of dollars annually on public relations campaigns to promote public acceptance of oil palm agriculture (Fig. 1) (Lopez & Laan 2008). Below we evaluate some of the main assertions advanced by the oil palm industry.

**ASSERTION 1—BIODIVERSITY IS SAFE.**—In a recent publication, the MPOC reiterated its argument that oil palm expansion in Malaysia does not threaten biodiversity because ‘... plantations are mainly established on old agricultural land or previously logged-over forest land’ (MPOC 2007, p. 5). This argument is fallacious because more than half of oil palm expansion in Malaysia and Indonesia has directly resulted in deforestation (Koh & Wilcove 2008, Carlson *et al.* 2009, Gibbs 2009); and studies comparing the biodiversity of oil palm with forests show that the conversion of either primary or secondary forests (regrowth on abandoned land or selectively logged) to oil palm is unequivocally detrimental to a wide range of taxonomic groups including plants, arthropods, reptiles, birds, and mammals (Fitzherbert *et al.* 2008, Koh & Wilcove 2008, Brühl & Eltz 2009, Danielsen *et al.* 2009).

**ASSERTION 2—OIL PALM IS PLANTED FOREST.**—The MPOC has produced several promotional videos to improve the image of the oil palm industry. One television advertisement broadcast in Europe and the U.S.A. went so far as to call oil palm plantations ‘planted forests’ ([http://www.youtube.com/watch?v=SCp9y6\\_AjaI&](http://www.youtube.com/watch?v=SCp9y6_AjaI&)). In the video and an accompanying report (MPOC 2007, pp. 10–11), the MPOC claimed that oil palm plantations ‘... throw a protective green canopy over the environment’ and are ‘... more effective



FIGURE 1. ‘Greenwashing’ signboard along a major highway in Peninsular Malaysia (photo credit: Reuben Clements).

than rain forests in serving as carbon sinks.’ These claims have no scientific support. Far from being a planted forest, oil palm plantations are biologically depauperate and will accelerate climate change: tropical humid forests in SE Asia have much higher carbon storage (typically ~230–270 Mg C/ha in aboveground stocks) than do oil palm plantations (~40–90 Mg C/ha), and oil palm development on forested land incurs a carbon debt that could take ~30–120 yr to repay (~400–900 yr if developed on peatlands) (Fargione *et al.* 2008, Gibbs *et al.* 2008, Danielsen *et al.* 2009, van Noordwijk *et al.* 2009). The MPOC video was criticized not only by environmental groups, but also by several oil palm producers who were concerned that such blatant greenwashing threatens those companies genuinely attempting to improve their management practices, and potentially result in a backlash from consumers (Butler 2008a). This oil palm advertisement, broadcast by BBC World, was subsequently ruled to have breached codes of the UK Advertising Standards Authority (ASA 2008).

**ASSERTION 3—FOREST CONVERSION HAS STOPPED.**—In June 2008 the Malaysian federal government announced that it would ban the conversion of ‘protected forests’ and ‘forest reserves’ to oil palm plantations, and would only allow areas zoned for agriculture to be planted (Butler 2008b). There are several reasons why we consider this another form of greenwashing.

First, it is unclear what type of land in Malaysia has been or will be designated for agriculture. If areas zoned for agriculture are currently occupied by secondary forests, then future oil palm developments will continue to drive deforestation, and forfeit opportunities for these forests to mature and augment primary forests in protecting biodiversity (Chazdon 2008). At a recent biofuels conference in Singapore (May 12–13, 2009; <http://www.elti.org/biofuels2009/>), an MPOC representative acknowledged that areas designated for agriculture in Malaysia might include forested lands (K. Sundram, pers. comm.).

Second, state governments in Malaysia wield considerable decision-making authority, and it is disingenuous of the federal government to imply that forest conversion to oil palm will cease. Following the federal government’s announcement, the Chief Minister of Sarawak (one of two large Malaysian states in Borneo) declared that Sarawak will continue to convert forests to oil palm because the federal directive ‘... [does] not apply to the state’ and that ‘... there are no reasons for [the state government] not to continue opening up more land’ (Butler 2008c). Presently, approximately 80 percent of Sarawak’s total land area of 12.3 million ha is still under forest cover (<http://www.forestry.sarawak.gov.my>).

## BLACKWASHING

On occasion, environmental activists can also be guilty of inflating claims and employing scare tactics to win public support for their causes. Below we discuss some blackwashing campaigns employed by environmental groups to discredit the oil palm industry.

**EXTINCTION OF THE ORANG-UTAN IS IMMINENT.**—Various environmental groups including Friends of the Earth have suggested that

orang-utans (*Pongo* spp.) could go extinct within a few years from the continued expansion of oil palm (Buckland 2005, pp. 38). These headline statements are conditional on a number of assumptions that, although presented within the more detailed reports, are glossed over in communicating with the wider public by various media outlets or media releases. For example, the Rainforest Action Network claims that ‘... orangutans are predicted to become extinct as early as 2011’ ([http://ran.org/the\\_problem\\_with\\_palm\\_oil/](http://ran.org/the_problem_with_palm_oil/)). In fact this is unlikely: 50,000 individuals in 54 wild populations are currently scattered across Sumatra and Borneo, of which at least 38 populations exceed 250 individuals (Wich *et al.* 2008). Although orang-utan populations are undoubtedly declining further as a result of ongoing habitat loss and remain a serious cause for concern (Goossens *et al.* 2006, International Union for Conservation of Nature and Natural Resources 2009), unrealistic headlines could undermine public confidence invested in environmental groups, which would then be counterproductive to conservation goals.

**AVOIDED DEFORESTATION SCHEMES WILL CRASH CARBON-TRADING MARKETS.**—Reducing emissions from deforestation and forest degradation (REDD) is a financial mechanism that compensates nations or land owners for conserving their forests through the valuation of carbon stored in forests. Currently, REDD projects are largely funded through designated carbon-finance funds (*e.g.*, the World Bank’s Forest Carbon Partnership Facility; <http://www.forestcarbonpartnership.org>), where carbon credits generally do not fetch a high enough price to offset the opportunity costs of oil palm development (Butler *et al.* 2009). Recent studies suggest that the inclusion of REDD in future climate policies by the United Nations Framework Convention on Climate Change (UNFCCC) could substantially boost the profitability of REDD projects and make preserving forests more economically competitive with oil palm production (Butler *et al.* 2009, Venter *et al.* 2009). During a UNFCCC meeting in Bonn, Germany, in March 2009, a Greenpeace representative claimed that the trading of carbon credits generated from REDD in UNFCCC-sanctioned carbon markets would ‘... crash the carbon price’ by up to 75 percent and ‘... significantly reduce investments in clean and renewable technologies in both developed and developing countries under all scenarios’ (Czebiński 2009). Critics—including the very economist Greenpeace commissioned to do the study—immediately seized on this claim, noting that the finding was based on extreme and unlikely assumptions (J. O. Niles, pers. comm.). Nevertheless, Greenpeace continues to use this study to argue against the adoption of REDD by UNFCCC—while promoting its own forest-conservation initiative (Greenpeace 2008)—when REDD has the potential, along with other conservation strategies, to contribute toward countering the loss of tropical forests to industrial-scale oil palm and other drivers of deforestation (Laurance 2006, Butler *et al.* 2009, Venter *et al.* 2009).

The same degree of accountability and transparency demanded from the oil palm industry should also be expected from environmental groups, who are self-declared monitors of the industry. It is in the interest of such groups to invest more caution in verifying their own statements before public distribution. Factually

dubious information advanced as truth by activists could provide ammunition for trade groups to dismiss environmental concerns altogether, or for naysayers to dispute their claims (*e.g.*, Lomborg 2001, 2007). Most importantly, such blackwashing could undermine the trust invested by consumers in the certification process for sustainable palm oil specifically and other certified products more generally, and by extension, the environmental and social benefits that could otherwise be achieved.

## CHALLENGING THE DICHOTOMY

The continued growth of the global population and societal wealth ensures that demand for agricultural and industrial products will continue to increase. We cannot conceive of a credible way to meet these demands without large-scale and often intensive agriculture, which is most efficiently and cost-effectively managed by corporations (we do not deny that other models exist, but we judge them to be insufficient to meet global human necessities). Accepting this, corporations and large-scale agricultural estates make a necessary contribution to societal needs, which we must recognize as being the product of our own consumer behavior (including what, how much, and what price of products we choose to consume).

At the same time, our concerns for the environment—and, in our case, tropical forests in particular—demand that we balance our needs for consumer products with the environmental degradation this might entail. We need environmental activists to pressure corporations to minimize their environmental impacts. We also need environmental activists to hold companies to account for any mismanagement and misrepresentation, deliberate or otherwise. To a great extent we (as general public) rely on pressure groups to expose malpractices, and it is precisely for this reason that these groups should strive to maintain the highest standards of reporting. Trust in these organizations begins to be undermined when this is not the case.

Greenwashing and blackwashing are the damaging extremities of a caricature that projects a stark dichotomy of perspectives, with each side castigating the other as the malefactor. One need only examine the political quagmire emerging from analogous washing tactics employed by opponents (Kalland 1993) and proponents (Hirata 2005) of the commercial whaling industry (Morishita 2006, Clapham *et al.* 2007). Indeed, the International Whaling Commission and its associated members provide poignant reminders of how impotent international policy can become when science takes a back seat to marketing in biodiversity and natural-resource management (Aron *et al.* 2000, Schweder 2001, Herrera & Hoagland 2006). A more considered approach would recognize that there are legitimate, if not entirely coincident, arguments advanced by both sides of the debate.

In reality this dichotomy of two implacably opposed sides is quickly dismissed when we realize that at least some companies are increasingly recognizing their social and environmental responsibilities, and even employ conservationists to senior positions (Cyranski 2007). A cynic might argue that this is another form of greenwashing, and to some extent this view might be correct, but this should not detract from the considerable advances that certain companies have made toward more sustainable approaches to land

management and profitability (Butler & Laurance 2008). These advances have been driven by societal concerns for the environment (and by their choices as consumers which increasingly reflect those concerns), and to this end environmental groups have made an important contribution. Indeed, let us be clear that we recognize the vital and positive contribution that environmental groups of all types have made toward the growth of environmental awareness among the general public in recent decades. We also recognize that aggressive campaigns fronted by occasional hyperbole have been effective tools to motivate core constituents and overcome environmental apathy. Yet we also believe that it is time to recognize that deliberate blackwashing could ultimately undermine efforts to engage an educated public and the more environmentally aware companies toward the common goal of environmental wellbeing.

The simple dichotomy of 'greens' vs. corporations is also untenable by virtue of the fact that some corporations and environmental groups regularly attempt to collaborate to resolve their differences. The development of certification schemes for timber (*e.g.*, Forest Stewardship Council; <http://www.fsc.org>) is a case in point, as are ongoing efforts to establish mutually agreed criteria for sustainable oil palm production (*e.g.*, Roundtable on Sustainable Palm Oil; <http://www.rspo.org>). The challenges remain great, and the differences are often wide, but neither greenwashing nor blackwashing campaigns are constructive for such efforts. In the end, both could serve to alienate an increasingly informed public from both corporations and environmental groups. Instead, environmental groups could contribute more constructively by helping the oil palm industry develop stronger sustainability criteria and by raising consumer awareness and demand for certified sustainable palm oil; the industry could also help increase the capacity of its members, particularly smallholders, in meeting the requirements of the certification process (for a recent critique of the oil palm industry, see Laurance *et al.* 2010). We need both corporations and environmental groups: we need to convince the former that we will hold them to account, and we need to trust the latter to advance these efforts for us responsibly.

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