

Forum

Corruption – a double-edged sword for conservation? A response to Smith & Walpole

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Conservation is a complex process that is affected by culture, politics, economics and biology. Smith & Walpole (2005) are right to identify corruption as an important influence on conservation, and their goal, to stimulate debate and analysis of this problem, is meritorious. Here, I expand on three points to highlight some further complexities that arise from their work.

1) The double-edged sword

A central assumption of Smith & Walpole's (2005) work is that corruption has negative impacts on conservation. These arguments are based in part on analyses presented in an earlier paper investigating relationships between biodiversity loss and governance (Smith *et al.*, 2003). However, the analyses in that study are incomplete. One point in their data that they do not discuss is that countries with high governance scores have low levels of species richness (Smith *et al.*, 2003). Corruption negatively influences conservation when corrupt officials allow unfair or illegal access to natural resource wealth (Laurance, 2004). This is beyond dispute. Such corruption is likely to be more common in societies with relatively inefficient economies (in the sense of waste of resources) and comparatively rare in societies with efficient, usually capitalist, economies. Furthermore, economic inefficiency and corruption are linked by a positive feedback loop such that each encourages the other. This fundamental relationship is exactly what makes corruption a double-edged sword for conservation. Specifically, economically inefficient economies are often (but not always) poor destroyers of natural environments. In contrast, highly efficient capitalist economies are usually capable destroyers of natural systems. Thus, when corruption reduces efficiency, it weakens the ability of the economy to efficiently destroy natural systems. Downplaying the role of corruption in limiting economies is misguided because economic limitation has important consequences for conservation.

The significance of good governance in efficient destruction of natural systems is difficult to illustrate,

especially as there are few country-by-country data sets on biodiversity loss. However, birds are often used as a surrogate for overall biodiversity (Donald *et al.* 2001; Birdlife International, 2004). To investigate the nature of the relationship between biodiversity loss and governance, I correlated population trends and range changes of European farmland birds with governance scores. Data on the collapse of bird populations were from the BirdLife International European Birds Census Council European Bird database (Tucker & Heath, 1994) and were modified exactly as described in Donald *et al.* (2001). Data on governance were Transparency International's (TI) Corruption Perception Index (CPI). I used TI's first surveys from 1995 (Transparency International, 1995) because they were those closest to the time period of Tucker & Heath's (1994) study. Because these surveys did not include all countries that Donald *et al.* (2001) evaluated, I also evaluated this relationship with TI's most current 2004 CPI data (Transparency International, 2004).

Correlations were evaluated with Pearson's Correlation Coefficient (Zar, 1999). These analyses rely on two assumptions: that CPI scores from 1995 are reflective of governance in the 20-year time period describing bird declines, and that declines in farmland bird populations are accurate indicators of changes in farmland bird biodiversity. These assumptions are unlikely to be violated in ways that would fundamentally change interpretation of these analyses.

In general there was a strong and highly significant negative correlation between CPI scores and decline in farmland bird populations in both 1995 ($n = 17$, $r = -0.69$, $P = 0.0021$; Fig. 1) and 2004 ($n = 31$, $r = -0.58$, $P = 0.0006$), indicating that countries with less corruption suffered higher losses in farmland birds than did countries with more corruption.

These data show that governance may be inversely related to changes in biodiversity, the opposite trend to that presented by Smith *et al.* (2003), and therefore that it is simplistic to assume that corruption must be, by default, bad for conservation. The situation is complicated. Smith & Walpole (2005) seem to suggest that the mechanism for the negative influence of corruption on biodiversity conservation functions by augmenting illicit or unsustainable uptake of natural resources in developing countries. Although this certainly occurs, I

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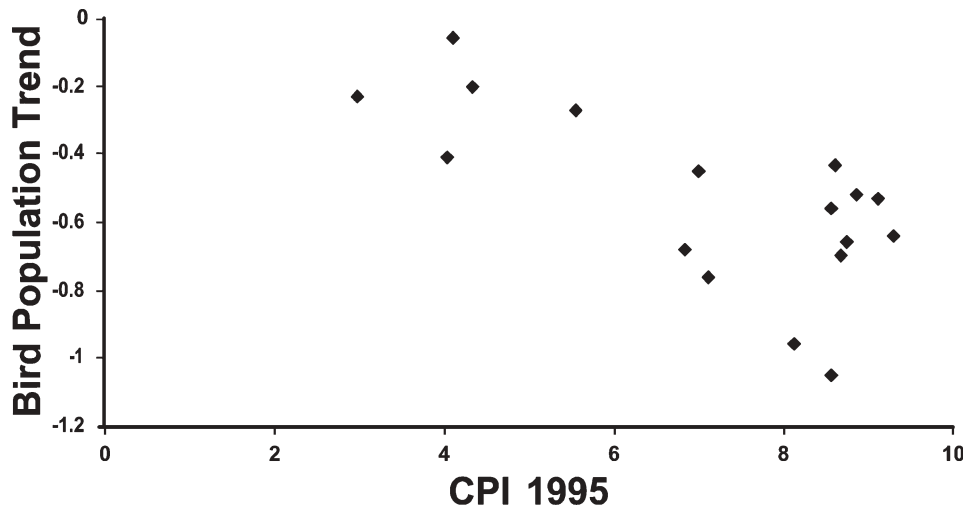


Fig. 1 The relationship between governance (Corruption Perception Index, CPI; from Transparency International, 1995) and declines in European farmland bird populations between 1970 and 1990 (an indicator of biodiversity loss during this period; from Donald *et al.*, 2001). The negative correlation is statistically significant (see text for details).

propose that corruption may also have positive impacts on biodiversity conservation when it negatively impacts the efficiency with which economies destroy natural systems. Agricultural intensification, which is the putative cause for farmland bird declines in Europe (Donald *et al.*, 2001), is most effectively implemented in well-organized and uncorrupt social systems.

The true relevance of corruption to conservation deserves more empirical study based on country-specific data of multi-taxa biodiversity trends. Empirical study aside, those of us who have worked in countries with corrupted social systems have seen their devastating impacts on some species. However, social systems with poor governance, while often damaging to individual species, are rarely capable of single-handedly effecting large, ecosystem-wide impacts on biodiversity (overpopulation in poorly governed countries often has significant impacts on biodiversity, but this is an emergent, rather than an intentional property). Efficient destruction of ecosystems, like effective conservation, usually requires long-term planning and well developed infrastructure and, simply put, this does not commonly occur in highly corrupt societies.

2) Conservation, corruption and market economics

Demand drives capitalist economies. It is therefore a mistake to assume that conservation of biodiversity can be addressed solely with supply-side solutions in high-biodiversity countries with poor governance and low GDP. Although in-country natural resource managers and government officials may be corrupt, as often as not, corrupters or money for corruption comes from people, businesses and organizations of external countries with high governance scores (i.e. uncorrupt countries). Furthermore, these same uncorrupt countries are

often the final destination for the products of corruption (e.g. lumber from tropical hardwoods, caviar from Caspian Sea sturgeon, falcons for falconry). The significance of outside sources of corruption is summarized in TI's 'Bribe-payer's index', although this index is difficult to interpret for these purposes because it is not scaled by the relative sizes of the economies involved (Transparency International, 2002).

It is difficult to avoid the impression of imperious condescension when conservationists from high-GDP, high-CPI scoring countries evaluate the impact on conservation of corruption in low-GDP, low-CPI scoring countries without recognizing the role of their own economies in promoting that corruption. Although I have no doubt about the intentions of most conservation biologists, to credibly and realistically address the relationship between corruption and conservation it is crucial to consider processes of both supply and demand. Conservation problems will not be well served or adequately addressed until we are able to take this approach.

3) Management of large-scale natural resource projects

As noted earlier, both efficient destruction and efficient conservation of ecosystems require long-term planning and well-developed infrastructure. Thus, it is not surprising that the many massively destructive projects (e.g. large-scale dams and resource extraction) in low-CPI scoring countries are directly or indirectly funded by multinational organizations based in and supported by high-CPI scoring countries. Many of these same organizations also fund large-scale conservation projects in low-CPI scoring countries.

For conservationists there is little in our work that is more unpleasant and frustrating than encountering

the corruption generated by these large-scale natural resource development and conservation projects. This is especially true when projects are conducted under the guise of aid. Although many of these projects result in good, many also encourage corruption and thus limit the extent of that good. To be effective, debate on the relationship between corruption and conservation should address both the way that multinationally funded projects are managed and the donor- and recipient-based solutions to the corruption problem.

Conclusions

Corruption has crucial consequences for conservation of biodiversity. However, it is simplistic to say that corruption is a force that only destabilizes conservation efforts. In fact, corruption destabilizes economies, thus sometimes helping and sometimes hindering resource extraction. Furthermore, to focus exclusively on corruption in countries with low governance scores is to chase a red herring that ignores the failure of multinational organizations and countries with high governance scores to address their complicity in biodiversity loss.

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