ABSTRACT
Tourism has a critical role in the portfolio of economic and political measures required to approach the Aichi Targets for the expansion of protected areas. Tourism receives remarkably little attention in high-level conservation debates, but in fact it already funds >50 per cent of some national parks agency budgets and contributes >50 per cent of conservation funding for some IUCN-red listed species. In addition, managing both revenue and threats from tourism is one of the major practical preoccupations of protected area managers on the ground. The ways in which tourism can support or threaten conservation depend strongly on local social, political and legal frameworks and hence differ markedly between countries, and between different land tenures within countries. In addition, the ways in which tourism can be mobilized as a conservation tool, or avoided as a conservation threat, differ between political and socioeconomic groups within each country. This paper argues that for good or bad, tourism has become an unavoidable component of conservation efforts worldwide, and deserves far greater attention from the conservation community.

INTRODUCTION
Protected areas worldwide are under pressure from threats such as encroachment, poaching, invasive species, pollution, modified fire regimes, and tourism and recreation. Some are under pressure from larger-scale political threats: reallocated or abandoned to extractive industries, subsistence settlement, or unsanctioned uses. Wilderness areas outside parks systems are shrinking, as human populations and resource consumption expand (Barnosky et al., 2012; Butchart et al., 2012; Cardinale et al., 2012). The Aichi Targets aim to address these threats by expanding protection to 10 per cent of marine and 17 per cent of terrestrial and freshwater ecosystems. Achieving this Target will require new funds (Morse-Jones, et al., 2012). This contribution summarises practices, opportunities and restrictions in using tourism as a source of conservation finance, drawing on a recent review (Buckley, 2011) and case-study compilation (Buckley, 2010).

Few countries can simply buy more land for parks. Instead, they aim to change primary production to conservation on public, communal and private land tenures. This is slow, incomplete and expensive, and may lead to further proliferation of paper parks. Funds are needed to buy out leases and other legal rights, compensate politically powerful corporations and regional electorates, persuade landowners to modify land-use, and cover costs of conservation management. Government budgets for parks agencies, however, are inadequate and falling, especially in biodiverse developing nations.

Parks agencies are therefore forced to find new conservation finance to meet the Aichi Targets. Options differ between nations and places. Carbon offsets and international aid are large but unfocussed. Environmental stewardship schemes, where governments pay landowners for conservation practices, are more focussed but smaller and less widespread. Many options suffer from political and commercial manipulation, which render them ineffective for conservation. Different programmes operate at different levels of government, are available to different landowners, use different incentive systems, and provide different legal protection. Some use competitive...
applications, tendering, or intermediaries such as NGOs. Incentives can include single or repeated payments, rate rebates and land-tax exemptions, or capital-loss deductions, sometimes saleable to third parties.

In some countries, conservation is financed by selling ecosystem services, especially water. This works best upstream from major cities, where conserving catchment ecosystems reduces costs of water supply and treatment, and flood prevention and damage. So-called sustainable harvesting programmes aim to gain support for conservation by allowing low-volume and selective collection of particular species, either for traditional subsistence use, or for commercial bioprospecting. These carry the risk that large-scale harvesting for commercial sale may be disguised as small-scale harvesting for individual use.

Tourism can also contribute significantly to conservation finance, especially where government budgets are low, but only where there are icon attractions, effective infrastructure, safe and easy access, and sufficient economic scale. Outdoor tourism has a global scale around a trillion US dollars annually (Buckley, 2009a, b), but this is very unevenly distributed, and geographic patterns change slowly. It takes time to build airports, roads and accommodation, and to establish reputation, visitation rates, and competitive international air access. In addition, tourism only contributes to conservation finance if there is a reliable local mechanism for conservation to capture a component of tourism revenue. Centralised taxation mechanisms are ineffective, since governments treat parks as a low priority.

**PARKS BUDGETS AND VISITOR FEES**

Some parks agencies believe that increasing recreational use of parks will lead to larger government budget allocations for conservation. This may or may not be correct, but there is little actual evidence. Budget deliberations are inaccessible and difficult to deconstruct. Unless visiting parks leads voters in marginal electorates to change preferences, political links between park visitation and parks agency budgets will be weak. Constituencies with concerns over conservation are much larger than those engaged in park-based recreation; and conservation constituencies may not favour high visitation. They may see certain types of recreation as imposing conservation costs and large-scale commercial tourism as private profit-making at the expense of the tax-paying public and the natural environment. Increasing visitor numbers also increases recreation management costs; so unless it increases revenue more than costs, it reduces net funds for conservation. Even if a government does increase a parks agency budget in line with visitation, that allocation may be short-lived. Once visitation increases, it may be replaced by individual entry fees.
In practice, many parks do charge fees: entry fees, daily fees, camping fees, fees to undertake particular activities, and fees to visit particular sites. Fees may be differentiated by season, group size, mode of transport, nationality, age, and for individual visitors and commercial tour clients. Public acceptance of fees varies with their local history, structure, purposes, collection mechanisms and other relevant information, such as signage and loyalty programs. Visitors are more willing to contribute funds for use locally rather than centrally. Since parks agencies reallocate visitor revenues internally, however, and government treasuries offset fee revenue by reducing other allocations, this is a moot issue. In recent decades, parks agencies in some countries have increased reliance on tourist fees to over half of total revenue (Mansourian & Dudley, 2008; Bovarnick et al., 2010). Most of these are in developing nations where government allocations to parks are low. Other countries, however, including many developing nations, fund park management entirely from central budgets, with no direct charges to tourists.

Parks agencies in different countries also have different permit systems for commercial tourism operators. For small-scale mobile tour operators which offer the same activities as those permissible for individual visitors, agencies typically use routine permit systems with: an initial application fee; an annual renewal fee; and a per-client fee which may be either higher, lower or the same as for individual visitors. Some agencies charge the per-client fee on the full quota of clients specified on the operator’s permit, irrespective of the actual number on any given trip, to address the issue of latent quota.

In some protected areas, commercial tour operators request special privileges not available to independent visitors. These include: using areas otherwise off limits; vehicle access on management trails closed to the public; activities prohibited to independent visitors because of impacts or safety risks; semi-permanent camps where occupancy is otherwise restricted; and photography and recording for commercial advertising. Parks agencies control such privileges closely, and negotiate special rights and fees on a one-off or ad-hoc basis.
FIXED-SITE TOURISM DEVELOPMENTS IN PARKS

One of the most contentious aspects of tourism in parks is construction of private fixed-site tourist accommodation or infrastructure inside public protected areas (Buckley, 2010a, b). Globally, this is quite uncommon. Some parks agencies construct their own facilities, from simple campsites to heritage lodges, and lease these to private concessionaires to manage day-to-day operations (Buckley, 2010b). The US National Parks Service, for example, has developed detailed and comprehensive concession contracts, regulations, fee structures, capital transfer provisions, and auditing procedures, over many decades. This system is not generally transferrable to other countries which do not have this tradition, or the legal framework to operate it successfully.

In some countries there are historic huts, lodges and even hotels which were established by trekking and mountaineering clubs, railway corporations and other private entrepreneurs, in the early days of the parks services (Buckley, 2010a,b). This occurred when access was slow and difficult, and governments were keen to encourage their citizens to experience the grandeur of their nations’ national heritage. Some of these are still operated by the original organisations, whereas others have been sold or consolidated. Precise legal arrangements vary, but typically involve privately-owned buildings on publicly-owned land.

For some heavily-visited and highly scenic national parks in the USA, the entire visitor services operations are contracted out to concessionaires. One such concessionaire is a private corporation set up by former parks service staff, perhaps to control salary costs for visitor management. In recent years, however, private hotel development corporations have tendered successfully for some of these concessions, perhaps taking advantage of equity provisions in US government tendering arrangements. How well this works remains to be seen. Many government agencies alternate between outsourcing services and operating them in-house; when current concessions come up for renewal, the parks service may decide instead to operate these facilities themselves. This whole-of-park concession approach is apparently not used in any other countries at present; parks services which offer commercial concessions do so, on a much smaller-scale and piecemeal basis. Even in the USA, piecemeal concessions are much more commonplace than whole-of-park arrangements; most of the >600 concessions currently in place are small-scale and specific.

Worldwide, even including these examples in the USA, there are <250 identifiable cases of privately-owned tourist accommodation and infrastructure inside public national parks, and nearly all of these are there for historical political reasons (Buckley, 2010b). Some are on enclaves of private land, which predate the establishment of the park itself. Some were set up when the parks were established (e.g. as part of arrangements to bring transport links to the parks concerned). Some are old buildings and structures on parks lands, which cannot be demolished because of cultural heritage laws. Agencies may sell such buildings, or the rights to operate them as tourist attractions, in order to avoid ongoing maintenance costs.

In some cases there have been changes in land tenure (Buckley, 2010b). For example, private individuals have donated land of high conservation value to a parks agency, but retained the right to operate tourist accommodation or activities. In other cases, public land has been transferred from production to protection, but with tourist rights granted to private entrepreneurs as part of a political package. In some countries, there were former hunting leases over areas now allocated to conservation, and these included rights to operate tourist accommodation. If declaration of a protected area halts hunting, lessees may sell their leases to non-hunting tourism operators, which
can continue to offer accommodation inside the park. There are cases where land rights claims by Indigenous peoples have seen title to protected areas transferred to Indigenous organisations, under leaseback arrangements so that these areas are still conserved, but with Indigenous organisations operating tourist activities. There are also a few cases where individual entrepreneurs with particular political connections to powerful government officials have been granted an extraordinary right to construct tourist facilities inside a public protected area, essentially through abuse of political power.

It seems to be very uncommon for protected area management agencies to adopt a deliberate and proactive policy to grant tourist development rights inside their parks to private entrepreneurs. Kruger National Park, from the South African National (SAN) Parks agency, has operated its own tourist rest camps for many decades. In 2000, it offered previously inaccessible parts of Kruger for exclusive use by private tour operators, on 20-year leases (Varghese, 2008). These leases grant exclusive traversing rights over the areas concerned, and rights to build tourist lodges and roads, under strict conditions. It appears that SANParks originally intended to emulate the financial success of the private game lodges in the Sabi Sands area adjacent to Kruger National Park, as a means to raise revenue. The new Kruger concessions have apparently not met the financial expectations of either SANParks or the lessees. They have, however, provided employment for local communities, which is politically valuable for SANParks because of South Africa’s Black Economic Empowerment laws. These lodges were originally marketed to wealthy international clients in the same way as those in Sabi Sands. It now appears, however, that the Kruger lodges might be more successful if they were marketed more strongly to South African domestic tourists, who have a strong place attachment to the Kruger National Park (Coghlan & Castley, 2012).

PRIVATE AND COMMUNAL CONSERVANCIES
Outside public protected area systems, a number of private and communal landowners receive funding through tourism which allows them to manage their land at least partly for conservation. This may range from protection of individual species from hunting, to complete protection as a private conservation reserve, including reintroductions of rare or threatened species. Different strategies and approaches are in use. There is a basic distinction between those where the landowner determines the conservation practices and also run the tourism operations and those where a landowner leases tourism operating rights to a different organisation, with conservation conditions for both lessor and lessee. Options available, and their degree of success, depend on the precise bundle of rights associated with various forms of land tenure and also on the rights of different public, private and communal stakeholders with regard to wildlife in general, and individual species in particular.

Currently, it appears that conservation tourism operations on private and communal lands are indeed significant for conservation, for several reasons. Often they include ecosystems which are poorly represented in public protected areas, because, for example, their soils and terrain are productive for agriculture, or because they include areas which would otherwise be subject to urban residential encroachment. In many cases the only potential corridors of native vegetation between existing public protected areas are through private or communally owned lands, so the latter are critical for landscape-scale connectivity conservation. Some threatened species are conserved within private and communal reserves, as well as public protected areas. Where tourism contributes to funding or political capital, it also contributes to conservation (Buckley, 2010a; Buckley, et al., 2012a; Morrison, et al., 2012).

DIFFERENCES BETWEEN NATIONS
In many developed nations, the costs of recreation management are significantly greater than the direct revenues raised from recreational fees and charges, but since parks agencies in these countries are expected to provide for public recreation as well as conservation, the two are closely linked in government budget appropriation processes. In many developing nations, especially where few of the countries’ own citizens yet engage in park-based outdoor recreation, direct revenues from international tourism may be a critical factor in keeping parks operational, and that in turn is critical to preventing the extinction of threatened species.

In countries such as Brazil, Russia, India, China and South Africa, there is both a longstanding but relatively small inbound international tourism market, and a recent, rapidly growing and very much larger domestic tourism sector, which is generating very large increases in protected area visitation. Some of the better-known national parks in China, for example, now receive over 20 million visitors
every year. These domestic visitors share international interests in seeing native wildlife and engaging in various forms of outdoor recreation and commercial adventure tourism.

Cultural contexts, motivations, expectations and behaviour of tourists, tour operators and land management agencies differ between countries, and do not necessarily match models which are most familiar to the Anglophone Western world. In addition, when domestic tourists from these nations travel internationally, their expectations and behaviour in national parks elsewhere will be shaped by their previous experiences in their own countries, creating additional complexities for protected area managers worldwide. This is a very rapidly evolving component of parks-tourism linkages, but one which is potentially very influential, and which therefore deserves particular research attention.

COMMERCIAL VIABILITY AND CONSERVATION RISK

Rather few species, mostly large mammals, act as major attractions in mainstream tourism, even though many more species attract specialised wildlife tourists, birdwatchers, botanists and divers (Smith, et al., 2012). Even for those species which tourists would indeed like to see, and places they would indeed like to visit, tourism can only contribute to conservation if the parks and wildlife are a sufficiently strong attraction, for a sufficient number of people, that they can support a commercially viable tourism industry. This depends very strongly on access and infrastructure. Protected areas which are time-consuming, arduous, expensive or unsafe to reach will attract few visitors. Each of these barriers can disappear quite rapidly, however, in the event of sudden political changes. Countries with little or no tourism can become popular destinations at quite short notice. This is helped by the fashion aspects of the international tourism industry, where travel magazines and other mass media are constantly searching for new destinations to promote.

Tourism can also collapse, however, with even greater rapidity, if countries are perceived as unsafe. Even relatively localised incidents, such as a kidnapping or border incursion in areas not commonly visited by tourists, can create an almost complete and instantaneous collapse in inbound international visitor numbers if it receives major coverage in international mass media. The same applies for natural disasters, even if they are localised and short-lived. For any country to plan its protected area budgets with strong reliance on tourism revenues is thus a very risky strategy. There are also numerous examples of countries where internal political disputes have caused major downturns in tourism, and major increases in wildlife poaching.

Even in countries which do remain stable politically, and maintain a fully functional and large-scale tourism sector with well-maintained infrastructure and a regular supply of international inbound visitors, the continuing survival of individual conservation tourism enterprises also depends on local market factors. Even long-established and successful tourism operators, which run large portfolios of commercially viable conservation tourism enterprises, find that some products are unprofitable and are ultimately abandoned or mothballed for extended periods. There are also many conservation and community tourism enterprises which were started with assistance from NGOs and bilateral aid donors, and have still been unable to achieve commercial independence.

The viability of conservation tourism enterprises also depends on overall patterns in global tourism, which are strongly influenced by large-scale economic trends. Long-haul short-break holiday travel, for example, is reduced during recessions, and this includes visits by tourists from
wealthier developed nations to protected areas in developing nations. Visits to protected areas in countries of origin, however, may increase during such periods (Buckley 2009b). Long-haul travel is also likely to be affected by future fuel prices, which are expected to rise because of increasing scarcity and the costs of climate change mitigation measures. Whilst such increases are small, tourists continue to travel simply by substituting against other types of discretionary expenditure. If they become large, however, there will be a gradual mode change whereby people substitute other forms of travel, leading to major changes in the structure of the global tourism industry (Buckley 2012b). Such trends would also affect the ability of parks agencies to rely on tourism revenues.

CONCLUSIONS

Tourism is now a significant part of the funding portfolio and political context, as well as the management costs, for many parks agencies; however, tourism still receives very little attention from the professional protected area and conservation community, as demonstrated by the programme for the 2012 World Conservation Congress.

This paper endeavours to demonstrate firstly, that tourism is far more widespread and significant in conservation finance than generally appreciated; and secondly, that it is by no means a panacea, but is available only in limited circumstances. In addition, nature-based tourism only yields a net contribution to nature conservation if it is appropriately harnessed through legal, political and financial mechanisms and institutions.

An appreciation of the tourism sector is now an essential component in the training and operational knowledge of conservation managers and policymakers worldwide. Equally, it is the responsibility of the research community to identify what does or does not work under various different circumstances, and why; and to identify and implement ways to track and measure outcomes, for conservation as well as for tourism.

REFERENCES


RESUMEN
El turismo desempeña un papel fundamental en el abanico de medidas económicas y políticas necesarias para acometer las Metas de Aichi para la expansión de las áreas protegidas. El turismo es objeto de muy poca atención en los debates de alto nivel relacionados con la conservación, pero de hecho ya financia el >50 por ciento de los presupuestos de algunas dependencias nacionales responsables de los parques y contribuye el >50 por ciento de los fondos para la conservación de algunas especies incluidas en la Lista Roja de la UICN. Por otra parte, tanto la gestión de los ingresos como las amenazas relacionadas con el turismo son algunas de las principales preocupaciones prácticas de los administradores de las áreas protegidas. Las formas en que el turismo puede ser de apoyo o amenaza para la conservación dependen en gran medida de los marcos sociales, políticos y jurídicos locales y, por consiguiente, difieren notablemente entre los países y sus diferentes formas de tenencia de la tierra. Además, las maneras en que el turismo puede ser incentivado como una herramienta para la conservación, o evitado como una amenaza para esta, varían según los grupos políticos y socioeconómicos de cada país. De ahí que sostenemos que –para bien o para mal– el turismo se ha convertido en un componente inevitable de los esfuerzos de conservación a nivel mundial, y amerita mucha más atención por parte de la comunidad conservacionista.

RÉSUMÉ
Le tourisme joue un rôle essentiel dans l’éventail de mesures économiques et politiques nécessaires pour atteindre les Objectifs d’Aichi liés au développement des aires protégées. Cependant, il est surprenant de constater le peu d’attention accordé au tourisme dans les débats de haut-niveau sur la conservation alors que cette activité finance plus de 50 pour cent du budget de certains organismes en charge des parcs nationaux, et contribue pour plus de 50 pour cent au financement de la conservation de certaines espèces figurant sur la Liste rouge de l’UICN. En outre, la gestion des revenus et des menaces issus du tourisme est l’une des principales préoccupations pratiques des gestionnaires d’aires protégées sur le terrain. Dans quelle mesure le tourisme soutient ou menace la conservation dépend fortement des cadres locaux sociaux, politiques et juridiques, et des différences marquées existent donc entre les pays et entre les différents types de régimes fonciers au sein d’un même pays. Enfin, dans quelle mesure le tourisme peut être utilisé comme outil en faveur de la conservation, ou évité en tant que menace pour la conservation, diffère selon les groupes politiques et socio-économiques de chaque pays. Pour le meilleur ou pour le pire, le tourisme est devenu une composante incontournable des efforts en faveur de la conservation dans le monde, et mérite pour cela un plus grand intérêt de la part de la communauté de la conservation.